

# Mobile Bar Directory

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The Pearls Group



# Table of Contents

1.0 Introduction .....	2
2.0 Business Plan .....	3
2.1 Four Year Profit Projection .....	4
2.2 Business Reports .....	5
2.3 Cost Allocation .....	6
2.4 Task Schedule .....	7
2.5 Gantt Chart .....	8
2.6 Salary Report .....	9
2.7 Cash Flow .....	10
2.8 Network Diagram .....	11
2.9 Advertising .....	12
3.0 Technical Specifications .....	13
3.1 Development Infrastructure .....	13
3.2 Software .....	13
3.3 Hardware .....	14
3.4 Backup .....	14
3.5 Security .....	14
3.6 End User requirements .....	15
3.7 Maintenance .....	15
4.0 Database .....	16
4.1 Data Flow Diagrams .....	16
4.2 Entity Relationship Diagram .....	18
4.3 Tables .....	19
5.0 Static Web Application .....	26
6.0 Dynamic Web Application .....	32
7.0 Administration Site .....	38
8.0 Phone Application User Manual .....	43
9.0 Testing .....	57
9.1 Testing Plan .....	57
9.2 Heuristics Evaluation .....	58
10.0 Group Information & Time Logs .....	59
Appendix A Sample Code .....	67
Appendix B Data Dictionary .....	76

# 1.0 Introduction

Whether you are a student, businessman, or tourist from another city, a lounge is probably one of the most popular places to go and enjoy a few drinks. Instead of blindly searching for a bar or lounge that has your favorite drinks, you may search our Bar Directory for the exact drink you want and you will get a listing of bars that serve that drink.

Our Bar Directory will enable you to locate several bars and lounges around all seven of DePaul campuses as well as other institutions in the Chicago land area. Our Bar Directory will provide you with accurate information and also with details on which bar or lounge is holding a special event, whether it's a musical artist or a special discount night offer.

With the Bar Directory application, students and visitors from other cities can have a pleasant and more convenient way to look up a bar in the Chicago land area. It will allow you to narrow down your options through bar ratings and promotions indicating which bars are holding special events near you. You may even hunt down that special drink you been looking for, because our application also provides you with information on the drinks each bar carries.

## 2.0 Business Plan

Our plan is to develop a web and wireless Bar Directory application that will make it convenient for students to locate bars and lounges around any of DePaul's seven campuses and other universities as well. We will supply our users with information about the location of the bar and also about any upcoming events that particular bar is having. Our application will be quick, easy, intuitive and accessible thus saving students valuable time. We will sell our services to bar owners who want to advertise on our website and mobile application. Bar owners will have to pay a monthly subscription to advertise to our registered members with ads and promotions.

We plan to spend about 100 hours on this project during development. Our spending plan is estimated to be a total of \$68,973 during the first year, with the initial development estimated at \$22,000, as shown in the budget. Revenue will come from all the bars that are in our database. During the first year of the application, we expect to subscribe 500 bars to add their listing for \$40 a year, a price that is reasonable and comparably cheaper than other similar web sites. In addition to that, we expect to subscribe 100 bars as premium users who will pay \$200 for the entire year and receive services such as an online access page where they are able to update their profile, load advertisements, and update their specials. This information will then be used to display advertisements when the user accesses certain web or WAP pages. This will yield during the first year \$40,000 in revenue. The net loss for the first year will amount to -\$28,973, but will be recovered in subsequent years with profits of \$7,943, \$15,515 and \$22,053 in years two, three and four of the project, respectively. This will yield, assuming a 15% discount rate, a Net Present Value of approximately \$4,200 and an Internal Rate of Return of approximately 22%. Based on these figures, we believe this project to be profitable.

On the following page is a four-year budget that highlights the income and expense. The rise in income is due to the increased subscriptions of both regular and premium bars, with the fees for each service remaining the same. Expenses such as rent, utilities, insurance, and advertising are also included. These are based on average figures for a two-person office. We are only employing one technical administrator part-time, who will take care of support and also necessary office tasks such as bill payment.

Also, we plan to buy two servers for \$2,000 each and two computers for \$1000 each plus a router and other hardware. The total for hardware comes out to \$8,000 for the first year. Additionally, \$3,000 is allocated for software for the first year.

**Note:** All figures on this page are preliminary and are subject to change in the revision of the budget. The figures are to be used as a framework for our belief that this project will be successful.



## 2.1 Four Year Profit Projection

	2004	%	2005	%	2006	%	2007	%
<b>Advertising Revenue</b>	\$ 40,000	100.00%	\$ 49,000	98.99%	\$ 58,000	98.72%	\$ 67,000	98.53%
Interest Income		0.00%	500	1.01%	750	1.28%	1,000	1.47%
<b>Gross Profit</b>	<u>\$ 40,000</u>	<u>100.00%</u>	<u>\$ 49,500</u>	<u>100.00%</u>	<u>\$ 58,750</u>	<u>100.00%</u>	<u>\$ 68,000</u>	<u>100.00%</u>
<b>Operating Expenses</b>								
Salary (Office & Overhead)	\$ 17,000	42.50%	\$ 18,000	36.36%	19,000	32.34%	20,000	29.41%
Payroll (taxes etc.)	1,301	3.25%	1,377	2.78%	1,446	2.46%	1,518	2.23%
Initial Development	22,072	55.18%	-	0.00%	-	0.00%	-	0.00%
Supplies (off and operation)	500	1.25%	525	1.06%	551	0.94%	579	0.85%
Repairs/ Maintenance	-	0.00%	2,500	5.05%	2,500	4.26%	3,500	5.15%
Advertising	5,000	12.50%	5,250	10.61%	5,513	9.38%	5,788	8.51%
Accounting and Legal	2,500	6.25%	2,625	5.30%	2,756	4.69%	2,894	4.26%
Rent	6,000	15.00%	6,000	12.12%	6,000	10.21%	6,000	8.82%
Telephone	1,800	4.50%	1,890	3.82%	1,985	3.38%	2,084	3.06%
Utilities	600	1.50%	630	1.27%	662	1.13%	695	1.02%
Insurance	1,200	3.00%	1,260	2.55%	1,323	2.25%	1,389	2.04%
Hardware	8,000	20.00%	500	1.01%	500	0.85%	500	0.74%
Software	3,000	7.50%	1,000	2.02%	1,000	1.70%	1,000	1.47%
<b>Total Expenses</b>	<u>\$ 68,973</u>	<u>172.43%</u>	<u>\$ 41,557</u>	<u>83.95%</u>	<u>\$ 43,235</u>	<u>73.59%</u>	<u>\$ 45,947</u>	<u>67.57%</u>
<b>Net Profit/(Loss)</b>	(28,973)		7,943		15,515		22,053	
DISCOUNT RATE	15%							
NPV	\$4,166.61							
IRR	22%							

## 2.2 Business Reports

The following reports were used to help our group plan for where the Bar Directory is right now and where it will be in the future.

- **Cost Allocation:**  
This report was designed to help us figure out real life costs of building and maintaining the Bar Directory application.
- **Task Schedule:**  
The task schedule report was put together so group members would know when each module would be completed. This allows members to plan when they needed to get their modules completed.
- **Gantt Chart:**  
This report allowed our group to visually track our progress and where we needed to be at a given date.
- **Salary Report:**  
The salary report was designed to layout the low cost the Bar Directory requires to start off.
- **Cash Flow:**  
The cash flow chart breaks down the costs needed by date to build the Bar Directory.
- **Network Diagram:**  
Shows the flow of the modules and describes the start and end dates.

## 2.3 Cost Allocation

## 2.4 Task Schedule



## 2.5 Gantt Chart

## 2.6 Salary Report (Initial Development)

## 2.7 Cash Flow

## 2.8 Network Diagram



## 2.9 Advertising



## 3.0 Technical Specifications

### 3.1 Development Infrastructure

We will be using ASP.NET and C# to implement our web application and mobile application. Since .NET provides built in support for mobile applications, we will be able to leverage this power to develop a robust, scalable, maintainable, and secure wireless application. ASP.NET Mobile Technology will also automatically detect different wireless devices such as a Palm, Dell PDA, or cell phone and will alter the wml generated to fit each specific device, with no programming interaction required.

### 3.2 Software

- Project Planning:
  - Microsoft Project, Microsoft Excel, Microsoft Visio
- Project Design:
  - Microsoft Excel
- Coding:
  - C#
  - SQL
  - WML: Visual Studio .NET for our programming IDE
  - ASP.NET: Visual Studio .NET for our programming IDE
  - HTTP: Dreamweaver MX and Notepad for coding and maintaining of the website.
- Graphics Design:  
(Logos, web applications, flyers, documentation)
  - Photoshop
  - Illustrator
  - Director
- Presentations:
  - Microsoft Office XP Pro PowerPoint
- Documentation:
  - Illustrator
  - Photoshop
  - Microsoft Office XP Pro Microsoft Word

### 3.3 Hardware

- **Mobile Phone or PDA Device:** Our application will run on most mobile phones or a PDA that has an Internet connection. ASP.NET will automatically detect the different types of wireless applications.
- **Database:** Microsoft Access
- **Primary Server:** Windows 2000 and IIS will be used for our web server
  - **Web:**  
<http://www.philipfalkenberg.etowns.net/bardirectory/web/>
  - **Administration:**  
<http://www.philipfalkenberg.etowns.net/bardirectory/admin>
  - **Wap:**  
<http://www.philipfalkenberg.etowns.net/bardirectory/>
- **Secondary Server:** Windows 2000 and IIS will be used for our web server
  - **Web:**  
<http://140.192.183.231/bardirectory/web/Default.aspx>
  - **Administration:**  
<http://140.192.183.231/bardirectory/admin/Default.aspx>
  - **Wap:**  
<http://140.192.183.231/bardirectory/Default.aspx>

### 3.4 Backup

- Our web applications and WML pages will be hosted on multiply servers as backups. These servers are maintained and run by reliable sources such as DePaul University's School of CTI on <http://ectweb.cs.depaul.edu>

### 3.5 Security

- Security for our web and wireless application will be handle by session variables stored in the ASP.NET server process. Sessions will be set to timeout after one hour, which will then prompt the user or administrator to login again.
- Security is also provided for bar owners who wish to use our online feature to update their bars information. Here they will need a unique username and password.

## 3.6 End User Requirements

- For our web application the end user will be required to have connection to the Internet and one of the following supported browsers: IE, Netscape, Mozilla, or AOL.
- For our wireless application, we will only support users using the OpenWave standard v.4.0 or greater wireless browser. Although our wireless application may run on other mobile devices aside from OpenWave, we do not ensure their efficacy or accuracy since we will not be doing testing on these devices.

## 3.7 Maintenance

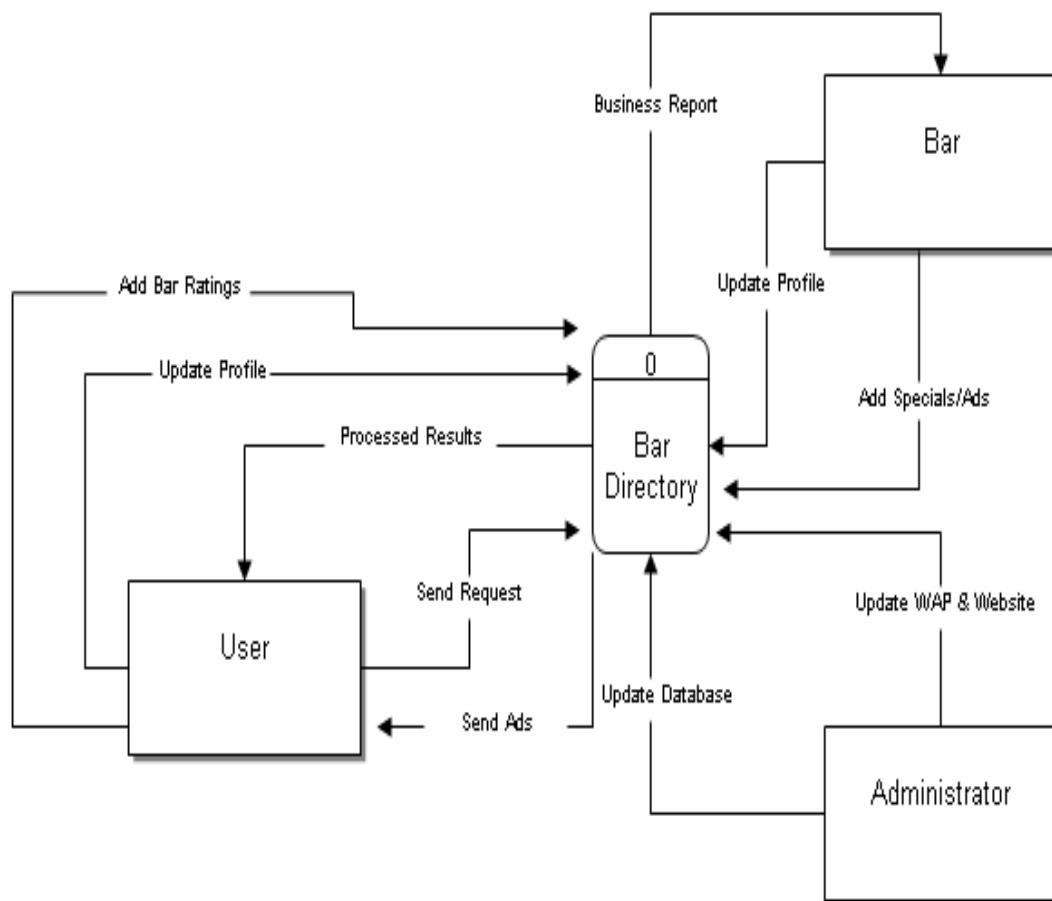
- Code Maintenance:
  - One person can maintain the code if plans are made to expand the current application.
- Database Maintenance:
  - The Bar Directory database can be maintained by directly inputting data such as new bars and new administration into the Microsoft Access database. We have however implemented an update feature for bar administrators to update their business hours, location, phone and specials menu. Through accessing their personal bar information online by inputting their unique username and password, the administrators can do these changes. These features allow for less work for the database maintainer. The feature also prevents errors such as miss spelling of bar information, wrong hour and drink special input.



## 4.0 Database

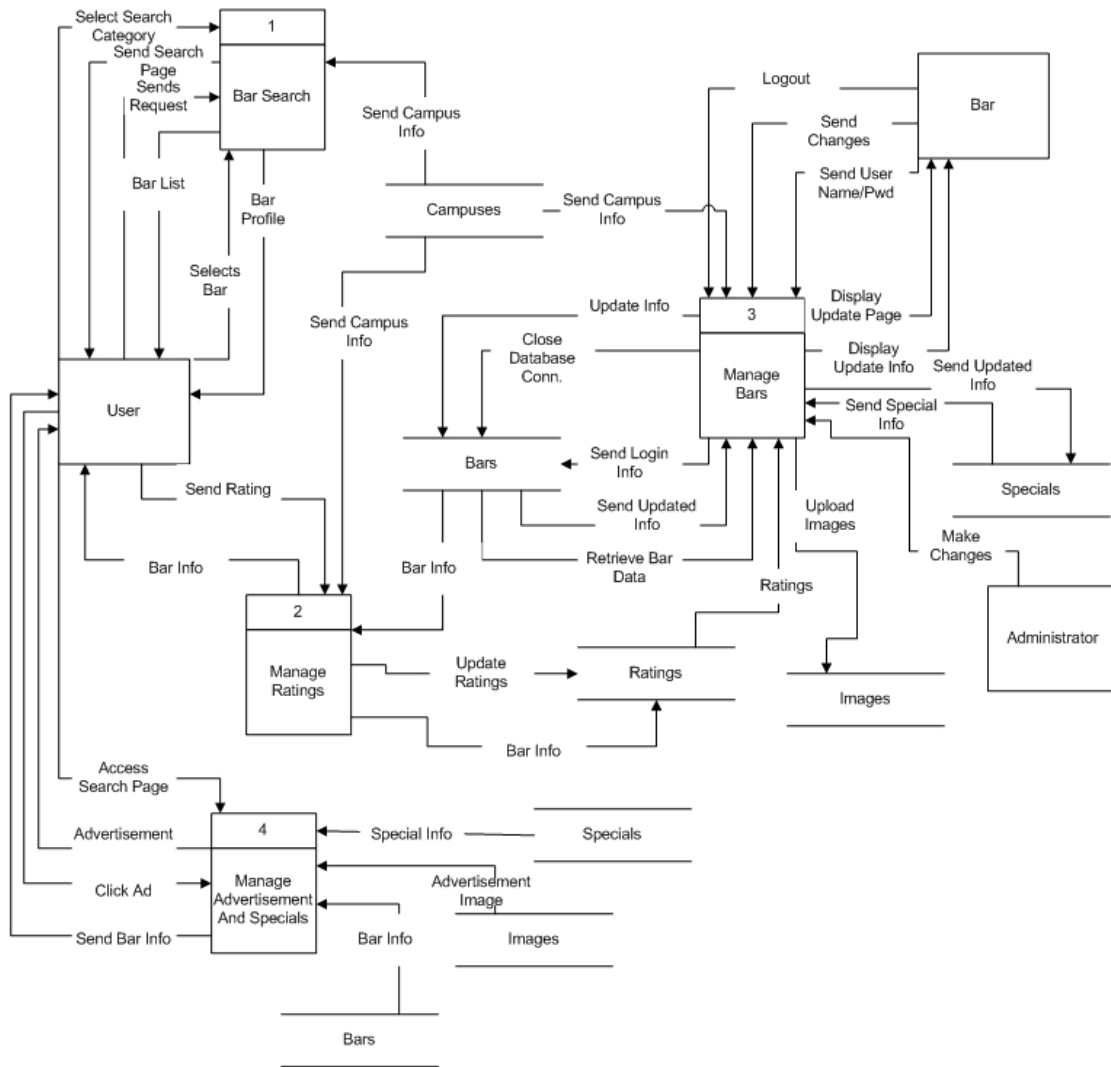
### 4.1 Data Flow Diagrams

#### a) Context Diagram

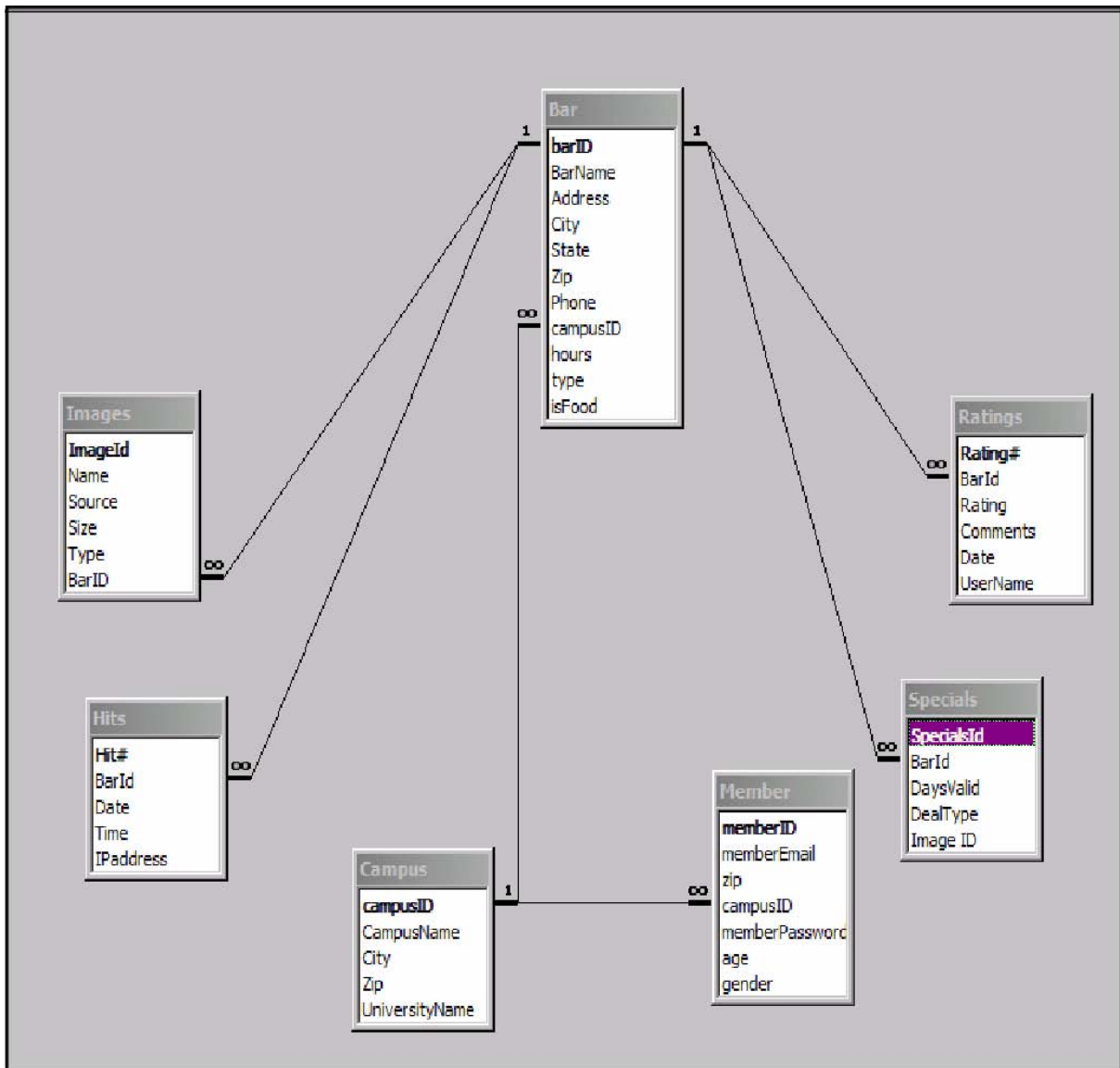


# 4.1 Data Flow Diagrams

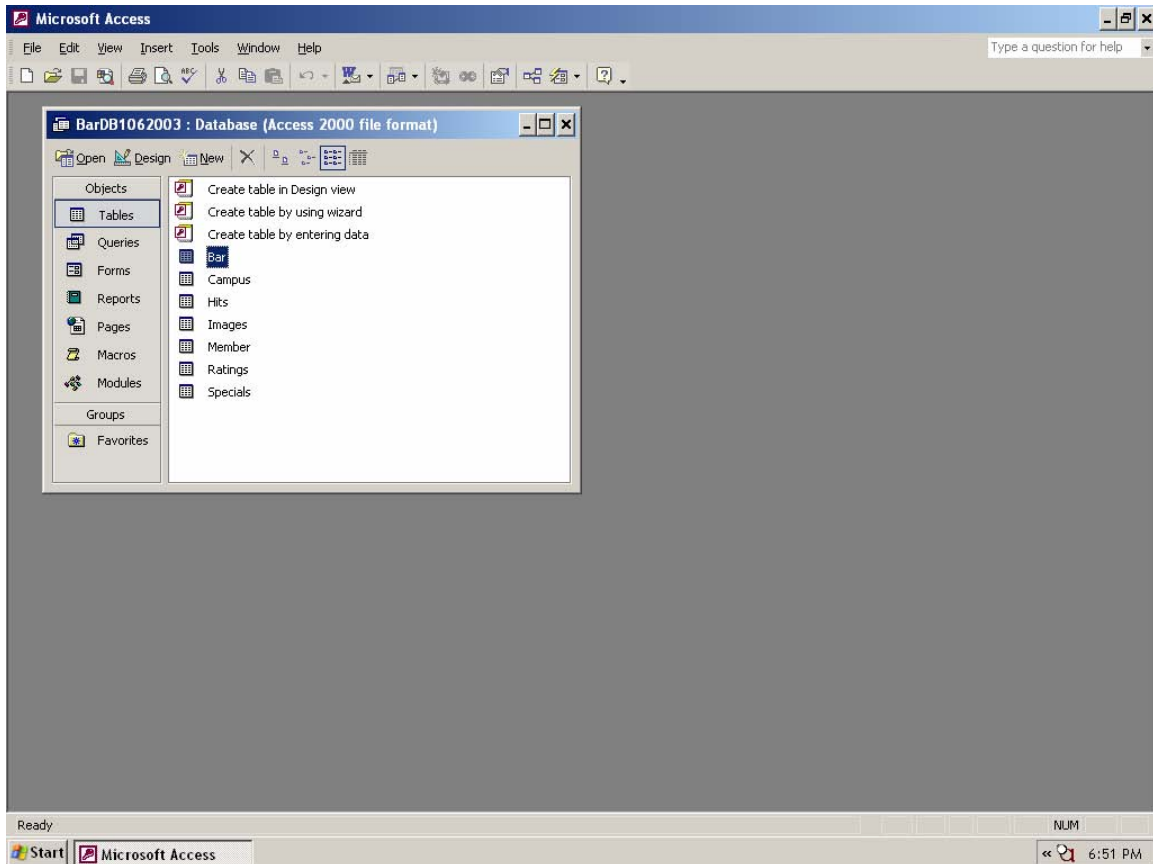
## b) Level 0 Diagram



## 4.2 Entity Relationship Diagram



## 4.3 Database Tables



## 4.3 Database Tables

### a) Bars

barID	BarName	Address	City	State	Zip	Phone	campusID	hours	type	isFood
0					0	0	0			<input type="checkbox"/>
1	Hogs and Honeys	1555 N. Sheffield Ave.	Chicago	IL	60614	3123771733	0		College	<input type="checkbox"/>
2	Sauce	1750 N. Clark St.	Chicago	IL	60614	3129321750	0		College	<input type="checkbox"/>
3	John Barleycorn (Lincoln Park)	658 W. Belden Ave.	Chicago	IL	60614	7733488899	0		Pub	<input type="checkbox"/>
4	Lincoln Station	2432 N. Lincoln Ave.	Chicago	IL	60614	7734728100	0		College	<input type="checkbox"/>
5	Kingston Mines	2548 N. Halsted St.	Chicago	IL	60614	7734774646	0		Blues	<input type="checkbox"/>
6	Good Bar	2512 N. Halsted St.	Chicago	IL	60614	7732969700	0		Pub	<input type="checkbox"/>
7	B.L.U.E.S.	2519 N. Halsted St.	Chicago	IL	60614	7735281012	0		Blues	<input type="checkbox"/>
8	Buddy Guy's Legends	754 S. Wabash Ave.	Chicago	IL	60604	3124270333	1		Blues	<input type="checkbox"/>
9	Alumni Club	150 N. Michigan Ave.	Chicago	IL	60604	3123451400	1		College	<input type="checkbox"/>
10	Manhattan's	415 S. Dearborn St.	Chicago	IL	60604	3129570460	1			<input type="checkbox"/>
11	Monk's Pub	203 W. Lake St.	Chicago	IL	60604	3123576665	1			<input type="checkbox"/>
12	Whiskey Blue	172 W. Adams St.	Chicago	IL	60604	3127824933	1			<input type="checkbox"/>
13	Fat Bean Coffeehouse & Bistro	2959 Artesian Rd.	Naperville	IL	60540	6309229821	2			<input type="checkbox"/>
14	Lantern	8 W. Chicago Ave.	Naperville	IL	60540	6303557099	2			<input type="checkbox"/>
15	Miss Kittys Saloon	634 E. Ogden Ave.	Naperville	IL	60540	6303572420	2			<input type="checkbox"/>
16	Orazio Pub	333 N. Center St.	Naperville	IL	60540	6303574350	2			<input type="checkbox"/>
17	White Tavern	423 E. Ogden Ave.	Naperville	IL	60540	6303571890	2			<input type="checkbox"/>
18	The Gaslight Club	O'Hare Hilton Hotel	O'Hare	IL	66142	7736860200	3			<input type="checkbox"/>
19	Sports Edition Bar	O'Hare Hilton Hotel	O'Hare	IL	66142	7736868000	3			<input type="checkbox"/>
20	Cindy's Pub	5230 159th St.	Oak Forest	IL	60452	7086876918	4		Pub	<input type="checkbox"/>
21	Gaelic Park and The Carraig	6119 W. 147th St	Oak Forest	IL	60452	7086879323	4			<input type="checkbox"/>
22	La Hacienda Mexican Restaurant & Lounge	15426 S. Cicero Ave.	Oak Forest	IL	60452	7085353600	4			<input type="checkbox"/>
23	Murphy's Pub	15427 Cicero Ave.	Oak Forest	IL	60452	7085356374	4		Pub	<input type="checkbox"/>
24	The Wild Olive	5200 W. 159th St.	Oak Forest	IL	60452	7085352005	4			<input type="checkbox"/>
25	MCGEES BAR & GRILL	3425 KIRCHOFF RD	Rolling Meadows	IL	60008	8475772171	5			<input type="checkbox"/>
26	AMF Rolling Meadows Lanes	3245 Kirchoff Rd	Rolling Meadows	IL	60008	8472594400	5			<input type="checkbox"/>
27	Hunter's Lounge	324 Green Bay Rd.	Lake Forest	IL	60045	8474328473	6			<input type="checkbox"/>
28	Silver Dollar Tavern	336 Green Bay Rd.	Lake Forest	IL	60045	8474336360	6			<input type="checkbox"/>
29	Teddy O' Brian's	432 Sheridan Rd.	Lake Forest	IL	60045	8479264475	6			<input type="checkbox"/>
30	The Wooden Nickel	327 Waukegan Ave.	Lake Forest	IL	60045	8472660550	6			<input type="checkbox"/>
31	Anywhere But Out	10358 S. Michigan Ave.	Chicago	IL	60615	7738211079	7			<input type="checkbox"/>
32	Bob's Lounge	10701 S. State St.	Chicago	IL	60615	7737855676	7		Lounge	<input type="checkbox"/>
33	Fortenberry's Roseland Lounge	38 E. 111th St.	Chicago	IL	60615	7738211999	7			<input type="checkbox"/>

## 4.3 Database Tables

### a) Bars (continued)

barID	BarName	Address	City	State	Zip	Phone	campusID	hours	type	isFood
+	34	Heartbeat Lounge	137 W. 115th St.	Chicago	IL	60615	7735685906	7	Lounge	<input type="checkbox"/>
+	35	Ralph's Lounge	34 E. 113th St.	Chicago	IL	60615	7739957783	7	Lounge	<input type="checkbox"/>
+	36	Bruno and Tim's Lounge and Liquor Store	6562 N. Sheridan Rd.	Chicago	IL	60626	7737647900	8		<input type="checkbox"/>
+	37	Checkered Flag	2800 W. Touhy Ave.	Chicago	IL	60626	7732628221	8		<input type="checkbox"/>
+	38	Emerald Isle	2537 W. Peterson Ave.	Chicago	IL	60626	7735616674	8		<input type="checkbox"/>
+	39	M. Officina Bar	7358 N. Clark St.	Chicago	IL	60626	7733380994	8		<input type="checkbox"/>
+	40	No Exit Cafe	6970 N. Glenwood Ave.	Chicago	IL	60626	7737433355	8		<input type="checkbox"/>
+	41	Bobby McGee's Bar & Grill	1237 S. State St.	Chicago	IL	60603	3129871189	9		<input type="checkbox"/>
+	42	Halsted Bowl	12345 S. Halsted St.	Chicago	IL	60603	7739288181	9		<input type="checkbox"/>
+	43	Jesse Liver More's	401 S. La Salle St.	Chicago	IL	60603	3127865272	9		<input type="checkbox"/>
+	44	La Masta	311 E. Kensington St.	Chicago	IL	60603	7732648729	9		<input type="checkbox"/>
+	45	Sky-Ride Cocktail Lounge	105 W. Van Buren St.	Chicago	IL	60603	3129393340	9		<input type="checkbox"/>
+	46	Speedway Lounge	331 E. Kensington St.	Chicago	IL	60603	0	9		<input type="checkbox"/>
+	47	Cunneen's	1424 W. Devon Ave.	Chicago	IL	60626		8		<input type="checkbox"/>
+	48	D J's Ranch	6962 N. Glenwood Ave.	Chicago	IL	60626	7737613555	8		<input type="checkbox"/>
+	49	Duke's Hideaway	6920 N. Glenwood Ave.	Chicago	IL	60626	7737642826	8		<input type="checkbox"/>
+	50	Gallhers	1770 W. Greenleaf Ave.	Chicago	IL	60626	7733384366	8		<input type="checkbox"/>
+	51	Gateway Bar & Grill	7545 N. Clark St.	Chicago	IL	60626	7732625767	8	Jazz	<input checked="" type="checkbox"/>
+	52	Glenway Inn	1401 W. Devon Ave.	Chicago	IL	60626	7732627838	8		<input type="checkbox"/>
+	53	J J's Inc.	6406 N. Clark St.	Chicago	IL	60626	7737435772	8		<input type="checkbox"/>
+	54	Jarheads	6973 N. Clark St.	Chicago	IL	60626	7739731907	8	Latino	<input type="checkbox"/>
+	55	Jarvis Liquors Inc.	1508 W. Jarvis Ave.	Chicago	IL	60626	7732625800	8		<input type="checkbox"/>
+	56	Lamp Post Ltd	7126 N. Ridge Rd.	Chicago	IL	60626	7734659571	8		<input type="checkbox"/>
+	57	Lighthouse Lounge	7301 N. Sheridan Rd.	Chicago	IL	60626	7737649414	8		<input type="checkbox"/>
+	58	McKellin's	2800 W. Touhy Ave.	Chicago	IL	60626	0	8		<input type="checkbox"/>
+	59	Mycroft's Pub	5911 N. Lincoln Ave.	Chicago	IL	60626	7738781527	8		<input type="checkbox"/>
+	60	Norshore Lounge	7100 N. Clark St.	Chicago	IL	60626	7737434345	8		<input type="checkbox"/>
+	61	Oasis	6809 N. Sheridan Rd.	Chicago	IL	60626	7739737788	8	Sports	<input type="checkbox"/>
+	62	P & W. Liquor	6733 N. Clark St.	Chicago	IL	60626	7737611906	8		<input type="checkbox"/>
+	63	R L Lounge	7049 N. Clark St.	Chicago	IL	60626	7739737637	8		<input type="checkbox"/>
+	64	Stars Inn Lounge	7030 N. Clark St.	Chicago	IL	60626	7734658678	8	Lounge	<input type="checkbox"/>
+	65	Sturch's Old Tavern	2535 W. Peterson Ave.	Chicago	IL	60626	7735616674	8	Sports	<input type="checkbox"/>
+	66	Tally Ho Pub	1951 W. Howard St.	Chicago	IL	60626	7737615332	8	Sports	<input type="checkbox"/>
+	67	Top Hat Lounge	1414 W. Morse Ave.	Chicago	IL	60626	7734658255	8		<input type="checkbox"/>

## 4.3 Database Tables

### a) Bars (continued)

barID	BarName	Address	City	State	Zip	Phone	campusID	hours	type	isFood
* 68	Touche	6412 N. Clark St.	Chicago	IL	60626	7734657400	8			<input type="checkbox"/>
* 69	Bill's Blues Bar	1029 Davis St.	Evanston	IL	60201	8474249800	10		Blues	<input type="checkbox"/>
* 70	Bluestone	1932 Central St.	Evanston	IL	60201	8474240420	10		Sports	<input checked="" type="checkbox"/>
* 71	Merle's Barbecue	1727 Benson Ave.	Evanston	IL	60201	8474757766	10		Pub	<input type="checkbox"/>
* 72	Tommy Nevin's Pub/Nevin's Live	1450 Sherman Ave.	Evanston	IL	60201	8478690450	10		Pub	<input type="checkbox"/>
* 73	Screenz Digital Universe	1730 Sherman Ave.	Evanston	IL	60201	8473321900	10			<input type="checkbox"/>
* 74	Ada Tap	1330 W. Madison St.	Chicago	IL	60607	3122268758	13			<input type="checkbox"/>
* 75	Bar Louie	1321 W. Taylor St.	Chicago	IL	60607	3126339393	13		Pub	<input checked="" type="checkbox"/>
* 76	Beviamo Wine Bar	1358 W. Taylor St.	Chicago	IL	60607	3124558255	13		Wine	<input type="checkbox"/>
* 77	Hawkeye's Bar and Grill Chicago	1458 W. Taylor St.	Chicago	IL	60607	3122263951	13		Sports	<input type="checkbox"/>
* 78	Illinois Bar & Grill	1421 W. Taylor St.	Chicago	IL	60607	3126666666	13			<input checked="" type="checkbox"/>
* 79	Post One	520 W. Harrison St.	Chicago	IL	60607	3129220958	13			<input type="checkbox"/>
* 80	Tufano's Vernon Park Tap	1073 W. Vernon Park Pl.	Chicago	IL	60607	3127333393	13			<input type="checkbox"/>
* 81	Bar Louie	5500 South Shore Dr.	Chicago	IL	60637	7733635300	11	11am-2	Pub	<input checked="" type="checkbox"/>
* 82	The Cove	1750 E. 55th St.	Chicago	IL	60637	7736841013	11	10am-2	Pub	<input type="checkbox"/>
* 83	Emergency Room	5040 S. Dr. Martin L King	Chicago	IL	60637	7733735122	11		Lounge	<input type="checkbox"/>
* 84	Len's 48 Club	4847 S. Indiana Ave.	Chicago	IL	60637	7735481777	11		Lounge	<input type="checkbox"/>
* 85	Pacs Lounge	5114 S. Prairie Ave.	Chicago	IL	60637	7735362500	11		Lounge	<input type="checkbox"/>
* 86	Ramada Inn Lake Shore Cafe and Lounge	4900 S. Lake Shore Drive	Chicago	IL	60637	7732885800	11	12pm-	Lounge	<input checked="" type="checkbox"/>
* 87	The Lucky Strike	1055 E. 55th St.	Chicago	IL	60637	7733472695	11	11:30a	Lounge	<input checked="" type="checkbox"/>
* 88	Jimmy's Woodlawn Tap	1172 E. 55th St.	Chicago	IL	60637	7736435516	11	10:30a	College	<input checked="" type="checkbox"/>
* 89	BIG Bar/Hyatt Regency Chicago	151 E. Wacker Dr.	Chicago	IL	60604	3125651234	1	11am-	Cigar	<input checked="" type="checkbox"/>
* 90	Green Room	130 S. Green St.	Chicago	IL	60604	3126669813	1	10pm-	Lounge	<input checked="" type="checkbox"/>
* 91	Opera	1301 S. Wabash Ave.	Chicago	IL	60604	3124610161	1	5pm-10	Asian	<input checked="" type="checkbox"/>
* 92	Alcock's	411 S. Wells St.	Chicago	IL	60604	3129221778	1	10am-	Games	<input type="checkbox"/>
* 93	Aria	200 N. Columbus Dr.	Chicago	IL	60604	3124449494	1		Wine	<input checked="" type="checkbox"/>
* 94	Bar Louie	47 W. Polk St.	Chicago	IL	60604	3123470000	1	11am-2	Pub	<input checked="" type="checkbox"/>
* 95	Berghoff Restaurant	17 W. Adams St.	Chicago	IL	60604	3124273170	1	11am-5	German	<input checked="" type="checkbox"/>
* 96	The Big Downtown/Palmer House Hotel	124 S. Wabash Ave.	Chicago	IL	60604	3129177399	1	11am-	Theme	<input checked="" type="checkbox"/>
* 97	Billy Goat II	309 W. Washington St.	Chicago	IL	60604	3128991873	1	7am-10	Pub	<input checked="" type="checkbox"/>
* 98	Buckingham's/Chicago Hilton and Towers	720 S. Michigan Ave.	Chicago	IL	60604	3129224400	1	5:30pm	Lounge	<input checked="" type="checkbox"/>
* 99	Cactus	404 S. Wells St.	Chicago	IL	60604	3129223830	1	11am-	Games	<input checked="" type="checkbox"/>
* 100	Caffe Baci	225 W. Wacker Dr.	Chicago	IL	60604	3122510135	1	6:30am	Microbre	<input checked="" type="checkbox"/>
* 101	Cardozo's Pub	170 West Washington St	Chicago	IL	60604	3122361573	1		Sports	<input checked="" type="checkbox"/>

## 4.3 Database Tables

### a) Bars (continued)

barID	BarName	Address	City	State	Zip	Phone	campusID	hours	type	isFood
+ 102	Catch 35	35 W. Wacker Drive	Chicago	IL	60604	3123463500	1	Bar Op	Piano Bar	<input checked="" type="checkbox"/>
+ 103	Cavanaugh's	53 W. Jackson Blvd.	Chicago	IL	60604	3129393125	1	Bar Op	Microbre	<input checked="" type="checkbox"/>
+ 104	Coogan's	180 N. Wacker Drive	Chicago	IL	60604	3129011703	1	Call	Pub	<input checked="" type="checkbox"/>
+ 105	Crocodile Lounge	221 W. Van Buren St.	Chicago	IL	60604	3124279290	1		Lounge	<input type="checkbox"/>
+ 106	Dragonfly Mandarin Restaurant & Lounge	1206 N. State Parkway	Chicago	IL	60604	3127877600	1	11am-4	Asian	<input checked="" type="checkbox"/>
+ 107	Encore	171 W. Randolph St.	Chicago	IL	60604	3123383788	1	3pm-1a	Lounge	<input checked="" type="checkbox"/>
+ 108	Gourmand	728 S. Dearborn St.	Chicago	IL	60604	3124272610	1	7am-1a	Microbre	<input checked="" type="checkbox"/>
+ 109	Govnor's Pub	207 N. State St.	Chicago	IL	60604	3122363696	1	11am-2	Pub	<input checked="" type="checkbox"/>
+ 110	Hackney's Printers Row	733 S. Dearborn St.	Chicago	IL	60604	3124611116	1	10:30a	Pub	<input checked="" type="checkbox"/>
+ 111	HotHouse	31 E. Balbo Drive	Chicago	IL	60604	3123629707	1	6pm-1a	Concert	<input type="checkbox"/>
+ 112	Houlihan's	111 E. Wacker Dr.	Chicago	IL	60604	3126163663	1	7am-1a	Sports	<input checked="" type="checkbox"/>
+ 113	Jefferson Tap	325 N. Jefferson St.	Chicago	IL	60604	3126480100	1	11am-4	Sports	<input checked="" type="checkbox"/>
+ 114	Kamehachi	320 N. Dearborn St.	Chicago	IL	60604	3127441900	1	4pm-10	Lounge	<input checked="" type="checkbox"/>
+ 115	Kasey's Tavern	701 S. Dearborn St.	Chicago	IL	60604	3124277992	1	11am-2	Pub	<input checked="" type="checkbox"/>
+ 116	Kitty O'Shea's	720 S. Michigan Ave.	Chicago	IL	60604	3129224400	1	11am-	Irish Pub	<input checked="" type="checkbox"/>
+ 117	La Strada Ristorante	155 N. Michigan Ave.	Chicago	IL	60604	3125652200	1	11:30a	Piano	<input checked="" type="checkbox"/>
+ 118	Lexi's	1330 W. Madison St.	Chicago	IL	60604	3128294600	1	11am-	Pub	<input checked="" type="checkbox"/>
+ 119	Lloyd's Chicago	200 W. Madison St.	Chicago	IL	60604	3124076900	1	7:30am	Microbre	<input checked="" type="checkbox"/>
+ 120	Lobby Court	1 W. Wacker Dr.	Chicago	IL	60604	3123727200	1	3pm-1a	Concert	<input checked="" type="checkbox"/>
+ 121	Mercury	221 W. Van Buren St.	Chicago	IL	60604	3124271774	1	Open u	Concert	<input checked="" type="checkbox"/>
+ 122	Miller's Pub	134 S. Wabash Ave.	Chicago	IL	60604	3126455377	1	Open u	Pub	<input checked="" type="checkbox"/>
+ 123	Superlounge	209 W. Lake St.	Chicago	IL	60604	3122239232	1		Lounge	<input type="checkbox"/>
+ 124	Tantrum	1023 S. State St.	Chicago	IL	60604	3129399160	1	5pm-2a	Lounge	<input type="checkbox"/>
+ 125	Tavern Tap/Congress Plaza Hotel	520 S. Michigan Ave.	Chicago	IL	60604	3124273800	1	11am-	Sports	<input checked="" type="checkbox"/>
+ 126	Trader Vic's	17 E. Monroe St.	Chicago	IL	60604	3129177317	1	4pm-1a	Pub	<input checked="" type="checkbox"/>
+ 127	West Gate Coffee House	924 W. Madison Ave.	Chicago	IL	60604	3128299378	1		Coffee	<input checked="" type="checkbox"/>
0					0	0	0			<input type="checkbox"/>



## 4.3 Database

### b) University Campuses

campusID	CampusName	City	Zip	UniversityName
0	Lincoln Park	Chicago	60657	DePaul
1	Loop	Chicago	60604	DePaul
2	Naperville	Naperville	60653	DePaul
3	O'Hare	Chicago	66142	DePaul
4	Oak Forest	Oak Forest	60452	DePaul
5	Rolling Meadows	Rolling Meadows	60008	DePaul
6	Lake Forest	Lake Forest	60045	DePaul
7	Washington Heights	Chicago	60615	Chicago State University
8	Rogers Park	Chicago	60626	Loyola
9	Grant Park	Chicago	60603	The School of the Art Institute of Chicago
10	Evanston	Evanston	60201	Northwestern
11	Hyde Park	Chicago	60637	University of Chicago
12	Loop	Chicago	60605	Roosevelt
13	Little Italy, Near west side	Chicago	60607	University of Illinois at Chicago
0			0	

### c) Hits

Hit#	BarId	Date	Time	IPaddress
{AutoNumber}	0			0

### d) Images

ImageId	Name	Source	Size	Type	BarID
0			0		0

## 4.3 Database (continued)

### e) Members

memberID	memberEmail	zip	campusID	memberPassword	age	gender
1	pfalken@uic.edu	60612	0	phil		
2	pfalken@uic.edu	60202	0	p		
4	pfalkenEDIT@ui	0	0			
5	fdsa@uic.edu	0	0	fdsafdsa		
6	new@new.new	60202	0	fdsafdsa		
7	new@new.new1	60202	1	fdsafsdafdsafdsa		
8	pfalken@shrike.	60202	3	phil		
9	p@p.edu	60202	1	phil		
10	m@m.m	60202	1	fdsafs		
11	phil@phil.edu	60202	0	phil		
12	phil@phil.edu1	60604	4	phil		
13	p@1.edu	60202	4	phil		
14	phil@phil.edu2	60202	2	phil		
(AutoNumber)		0	0		0	

### f) Ratings

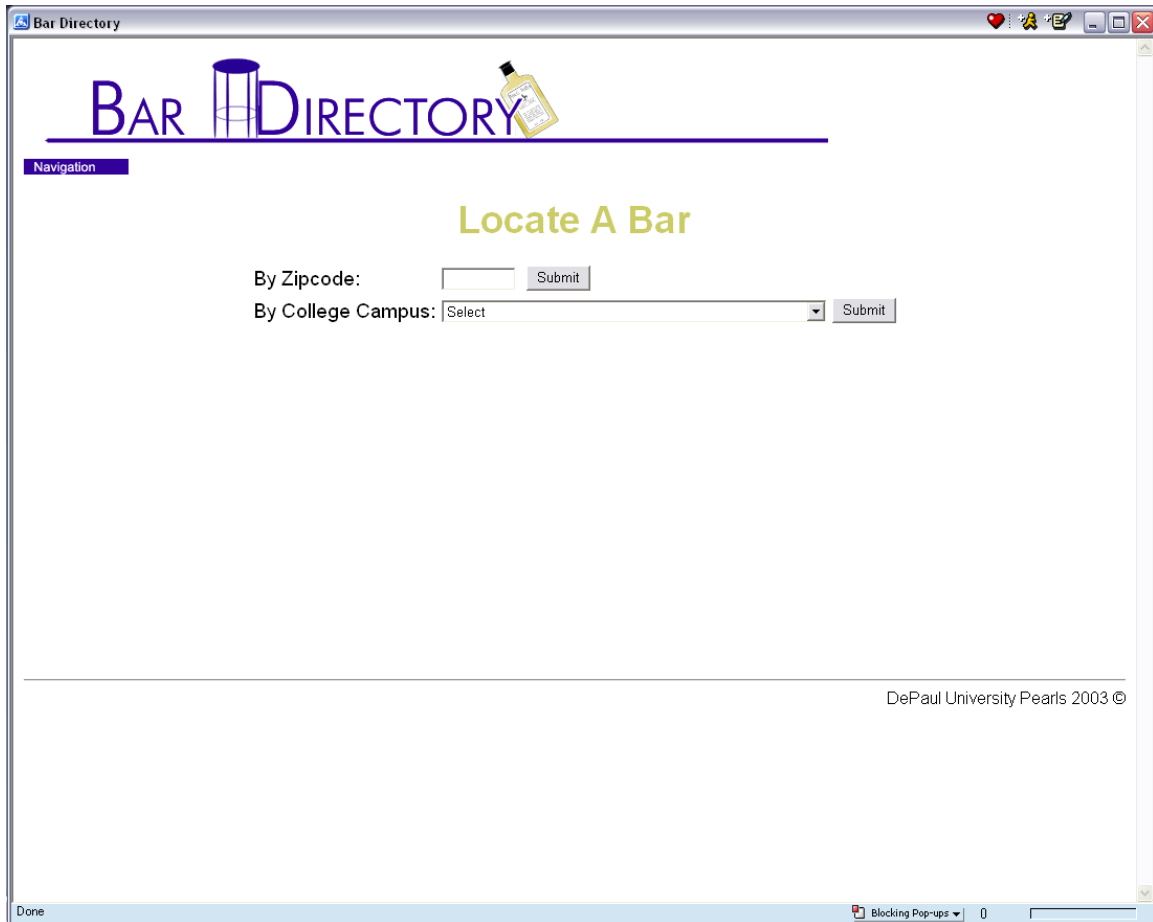
Rating#	BarId	Rating	Comments	Date	UserName
(AutoNumber)	0	0			

### g) Specials

SpecialsId	BarId	DaysValid	DealType	Image ID
0	0	0		0

## 5.0 Static Web Application

### a) Home



This page is the first thing a users sees when logging on to the Bar Directory. It does however have dynamic components on it. For more information on the dynamic portion of the Bar Directory application, please refer to the next section in this booklet. (7.0)  
<http://www.philipfalkenberg.etowns.net/bardirectory/web/>

## 5.0 Static Web Application

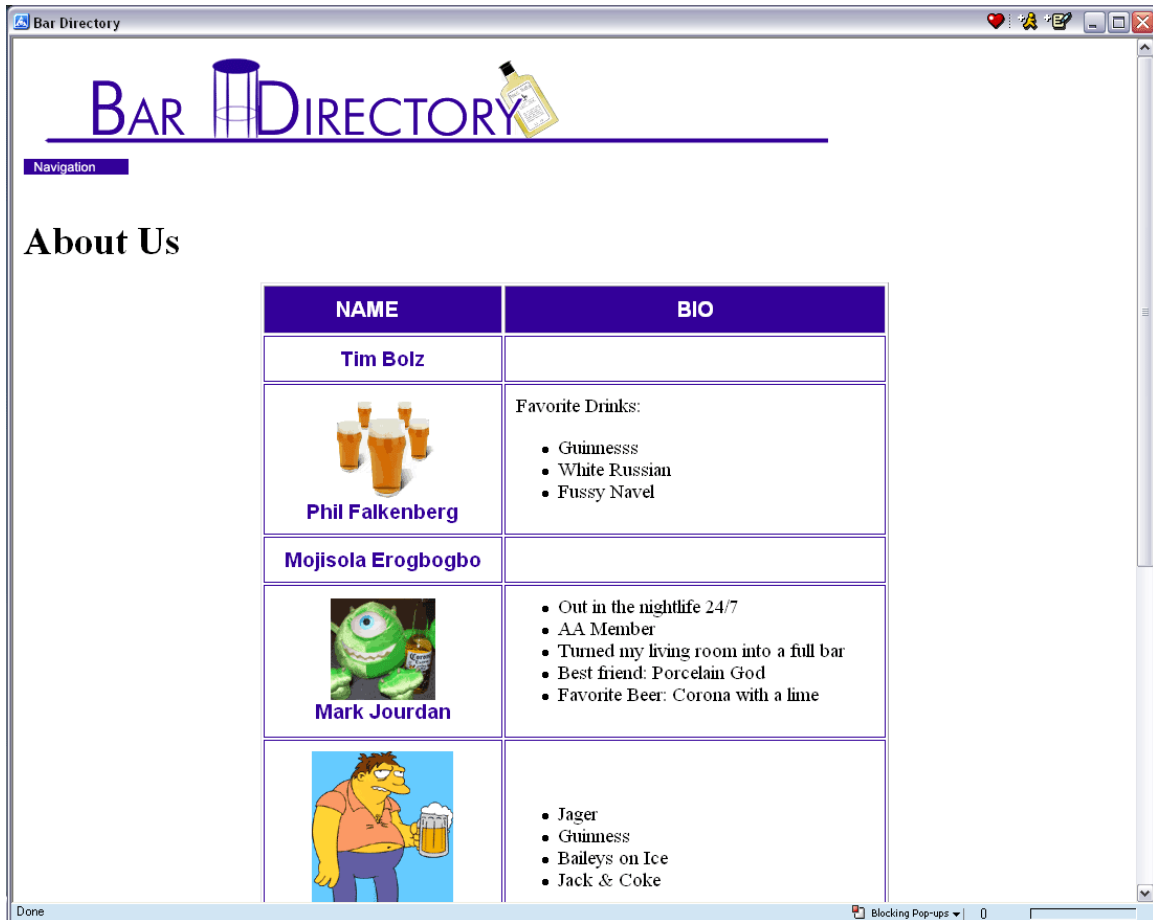
### b) Navigation



Clean, easy to use navigation allows the users to go anywhere in our site while keeping the Bar Directory site clean and clear of clutter.

## 5.0 Static Web Application

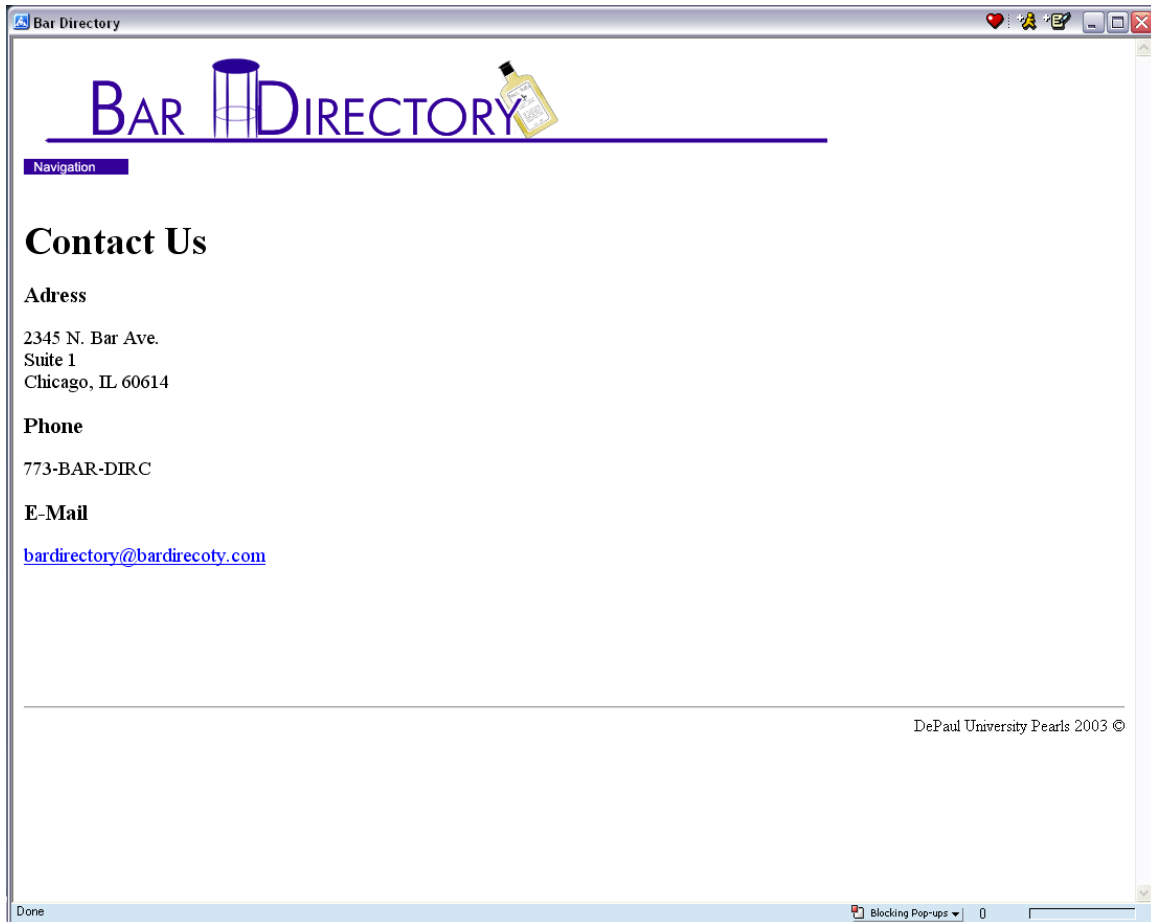
### c) About Us



Here the user can find out a little on the Bar Directory developers.  
<http://www.philipfalkenberg.etowns.net/bardirectory/web/aboutus>

## 5.0 Static Web Application

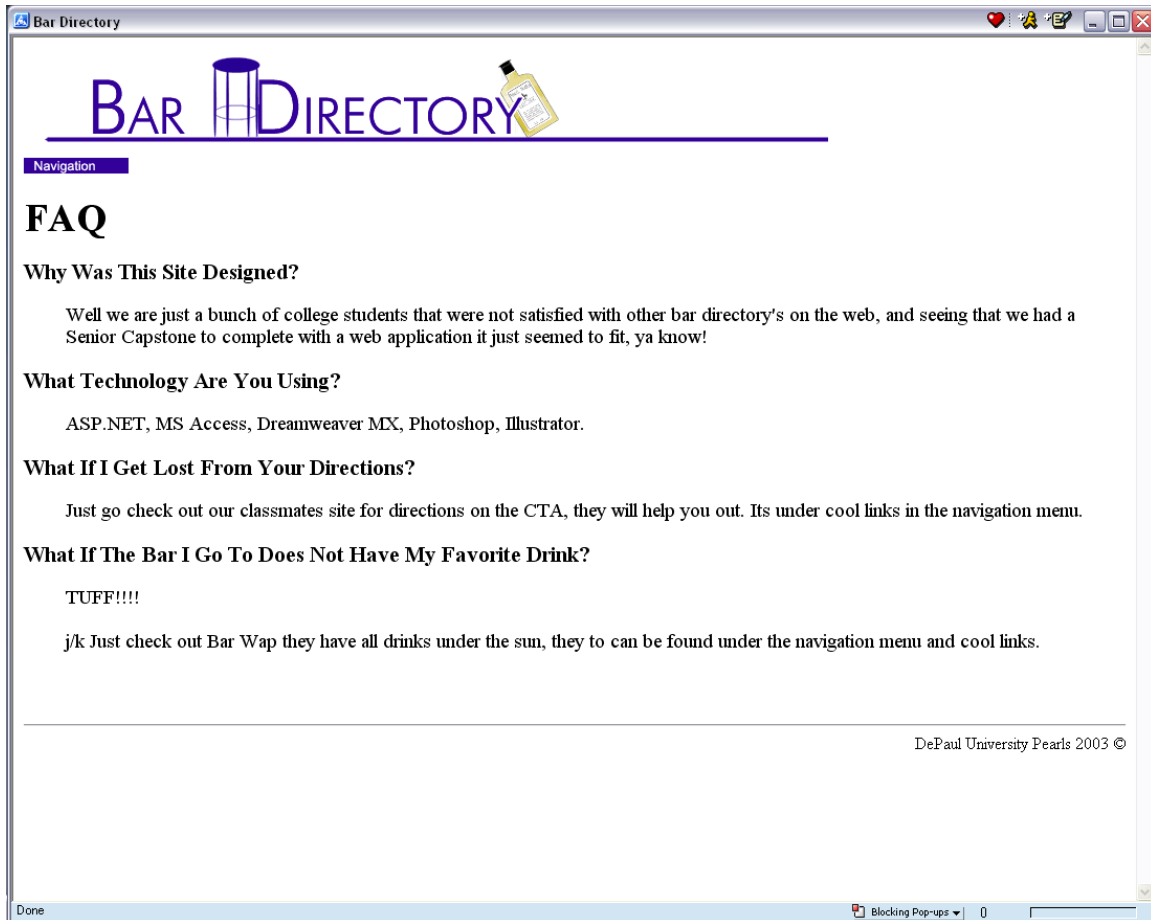
### d) Contact Us



Any information regarding the Bar Directory application can be directed here.  
<http://www.philipfalkenberg.etowns.net/bardirectory/web/contact>

## 5.0 Static Web Application

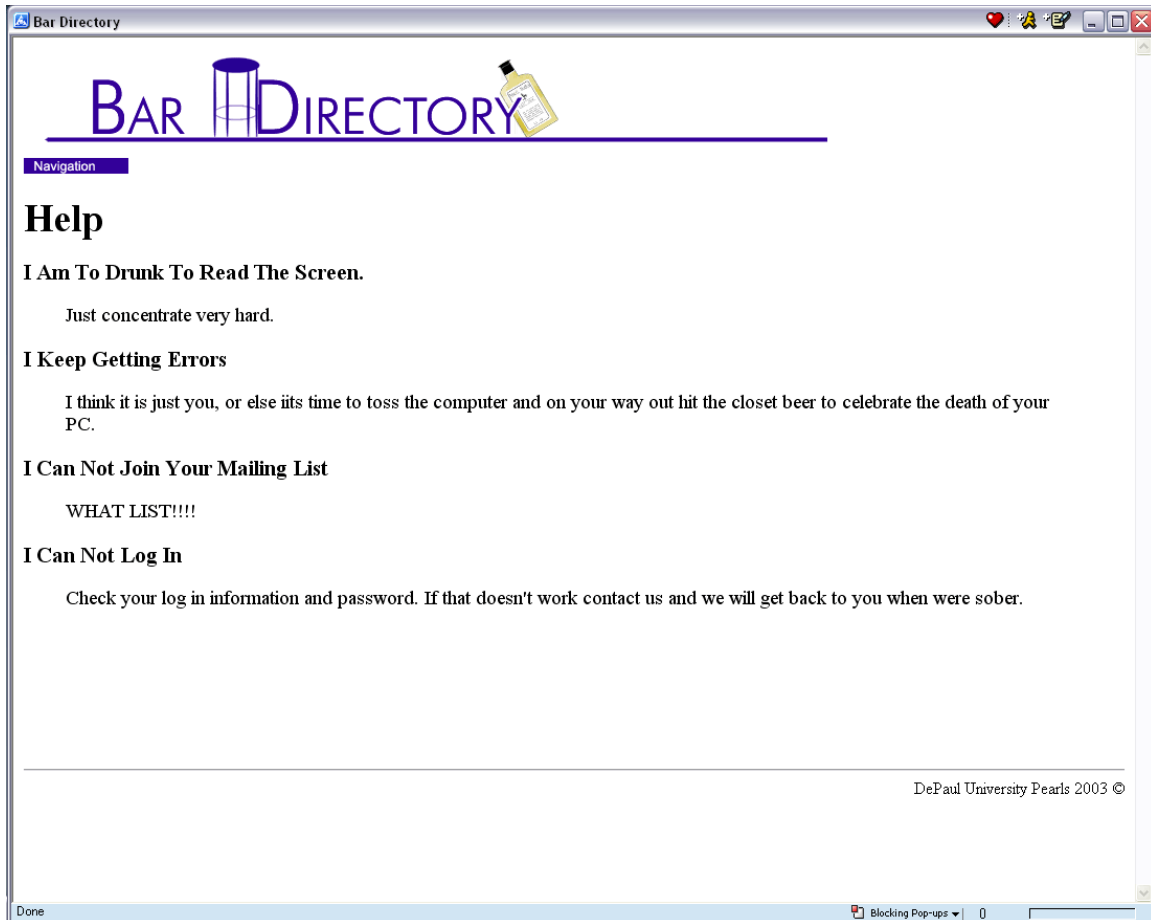
### e) FAQ



The FAQ page is designed to inform users and administrators about the technology that the Bar Directory uses, as well as other information.  
<http://www.philipfalkenberg.etowns.net/bardirectory/web/faq>

## 5.0 Static Web Application

### f) Help



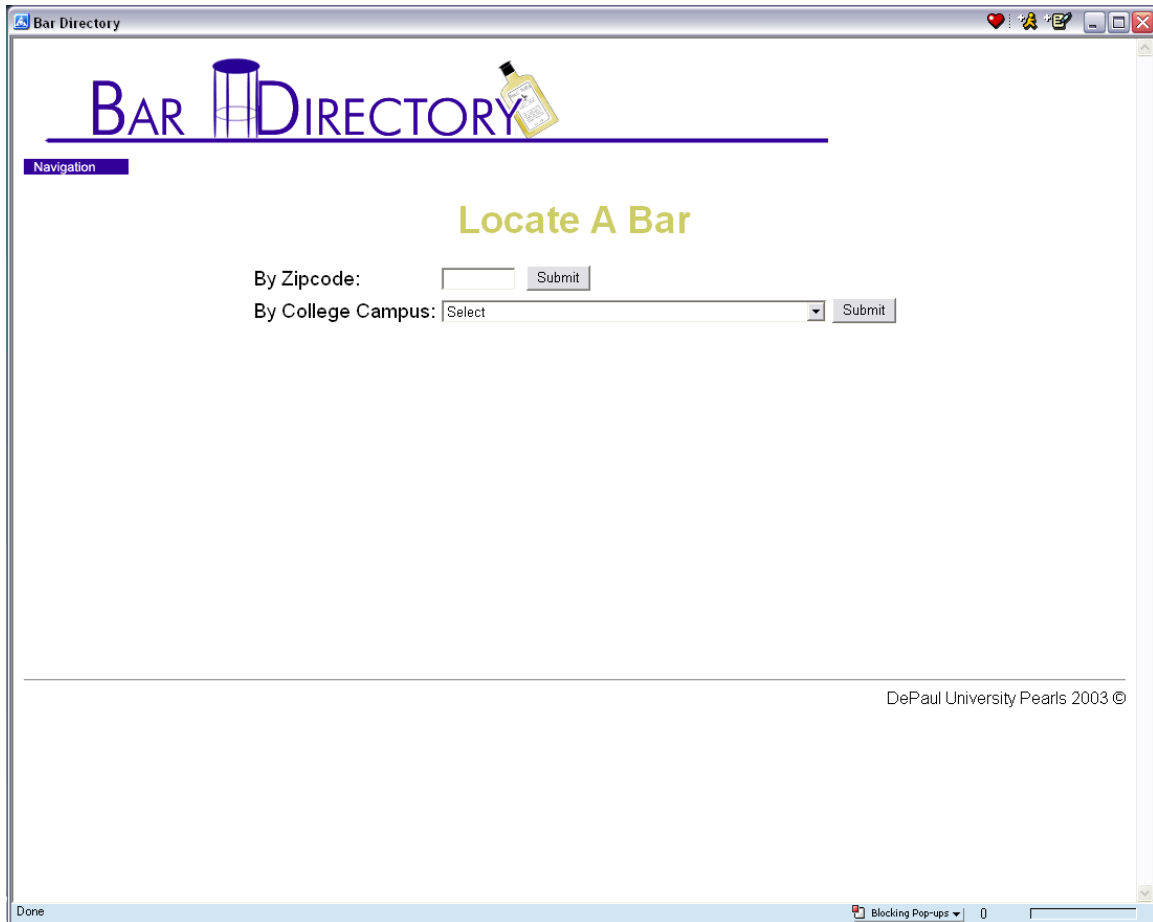
Jokes added into the Help page let the users know that this application was developed for people who like to have a little fun.

<http://www.philipfalkenberg.etowns.net/bardirectory/web/help>



## 6.0 Dynamic Web Application

### a) Home



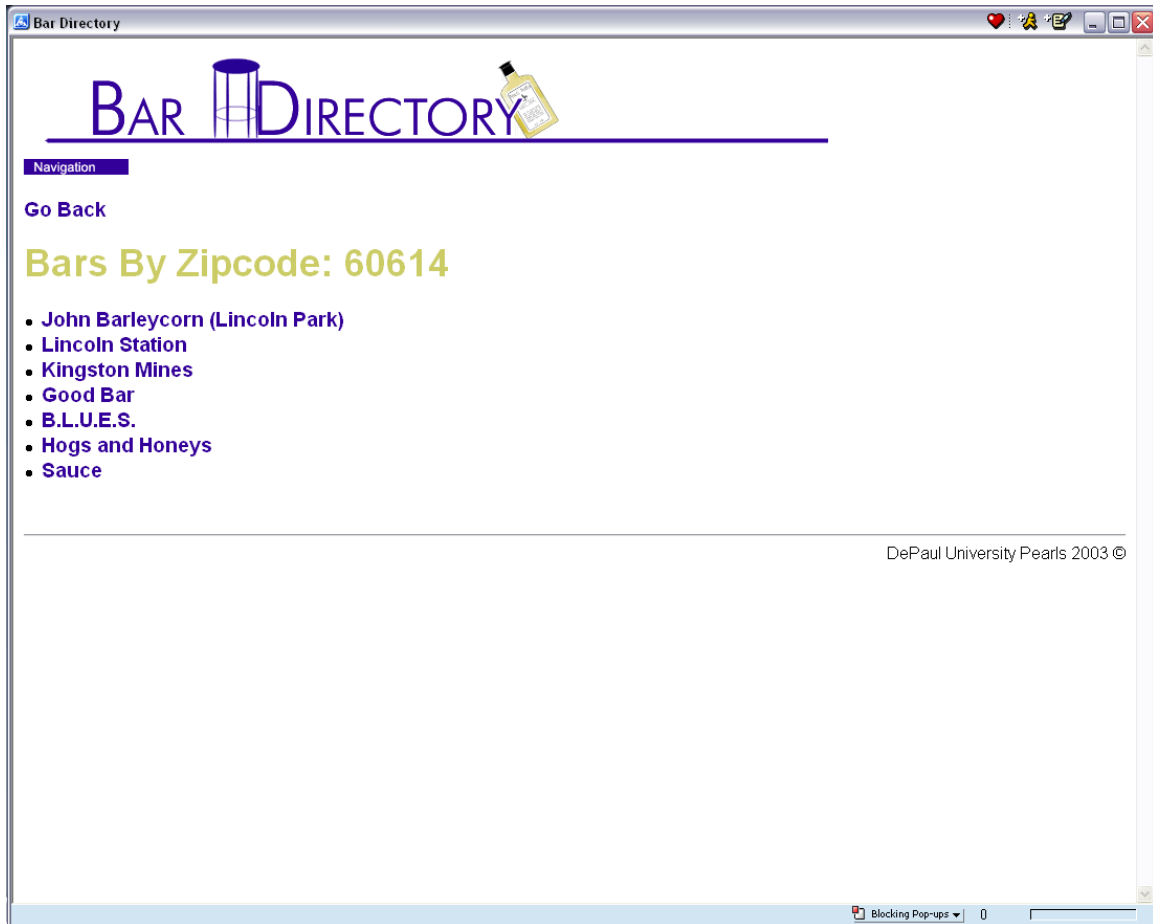
This page is the first thing a users sees when logging on to the Bar Directory. This page is what links to the search features, which is the dynamic portion of the Bar Directory application.

<http://www.philipfalkenberg.etowns.net/bardirectory/web/>



## 6.0 Dynamic Web Application

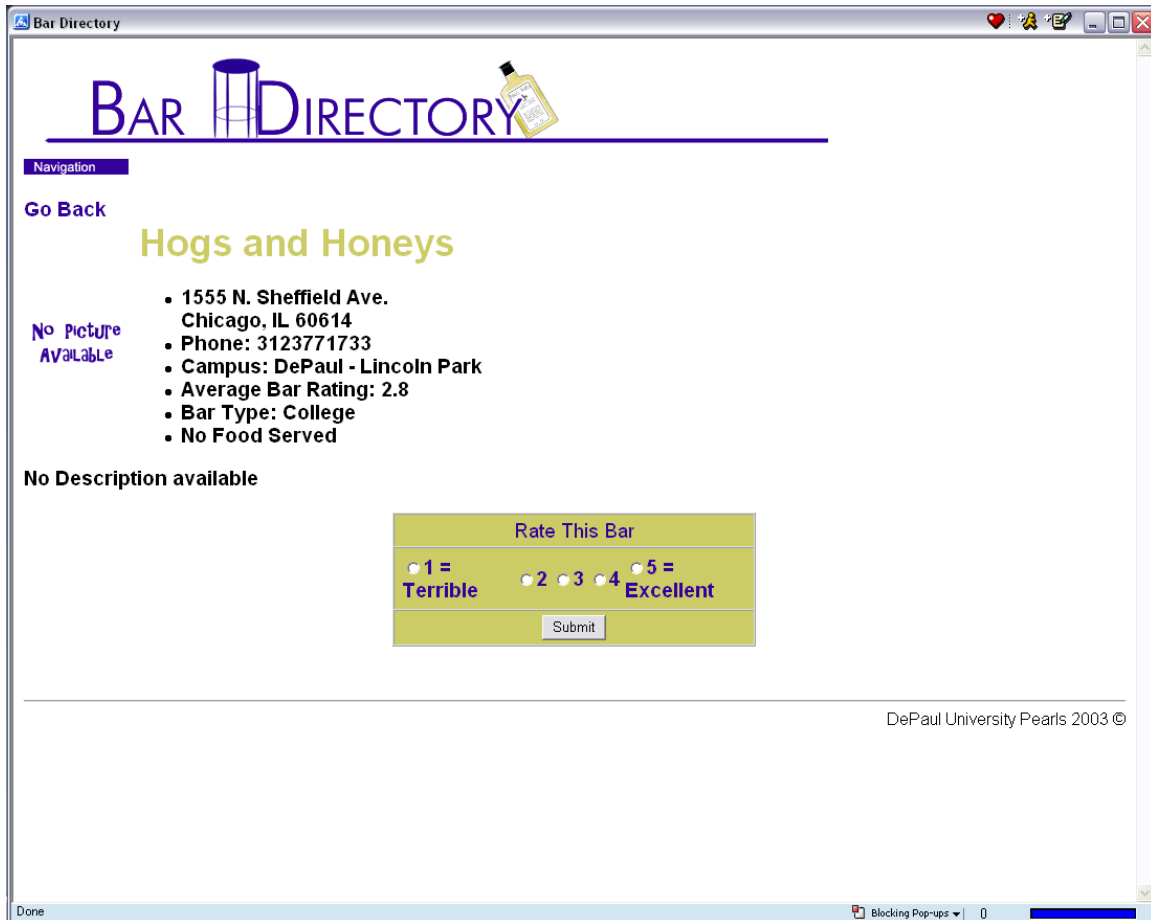
### b) Search by Zip Code



After entering in a zip code for the location in which you would like to find a bar, this is the next page that you see. As you can see, the zip code that you entered is above the list of the bars found in the database.

## 6.0 Dynamic Web Application

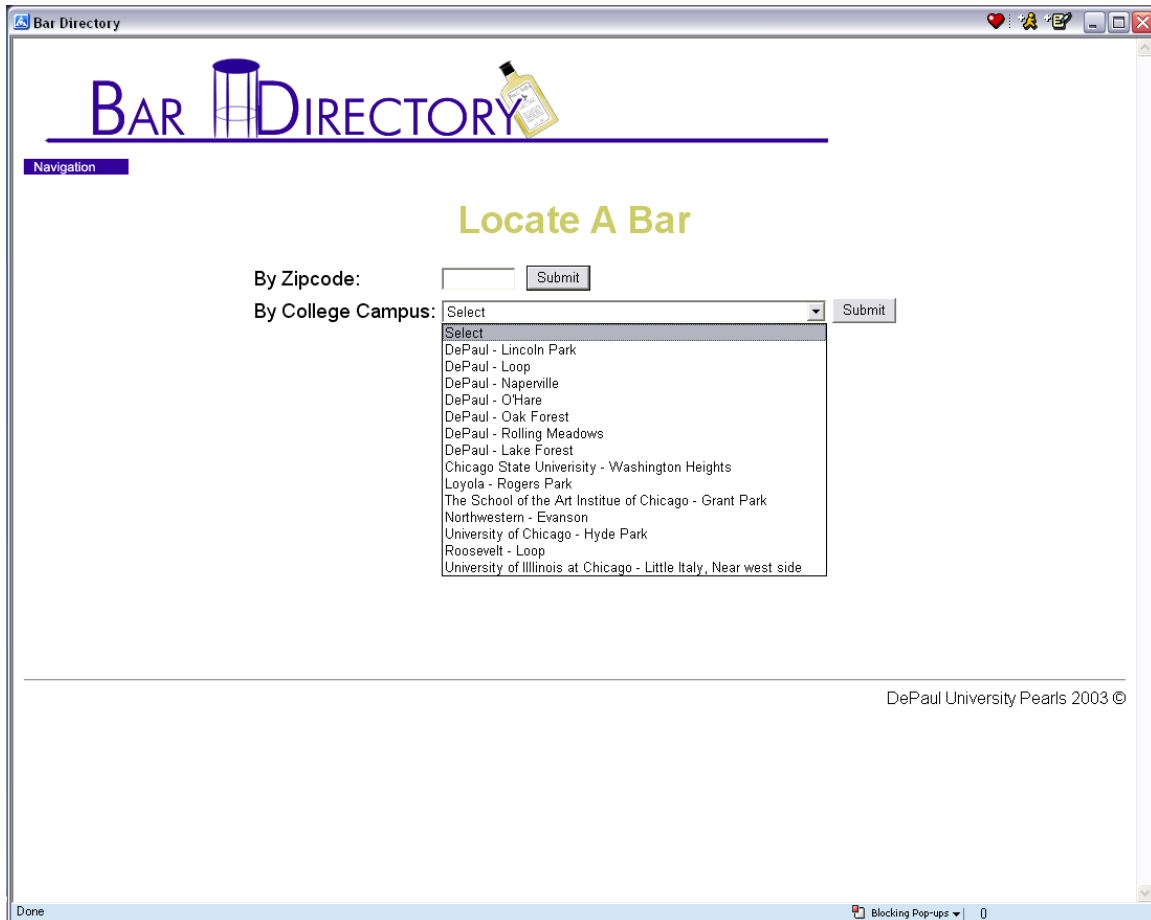
### c) Bar Pages



When the user clicks on the bar he or she is interested in, the site takes them to that bar's corresponding page. Here the user receives information about the bar; including the address, phone number, closest university campus, the bar's average rating (rated by users online and on the phone application), the type of bar, hours open, and if the bar serves food. At the bottom section of the page, users are able to rate the bar.

## 6.0 Dynamic Web Application

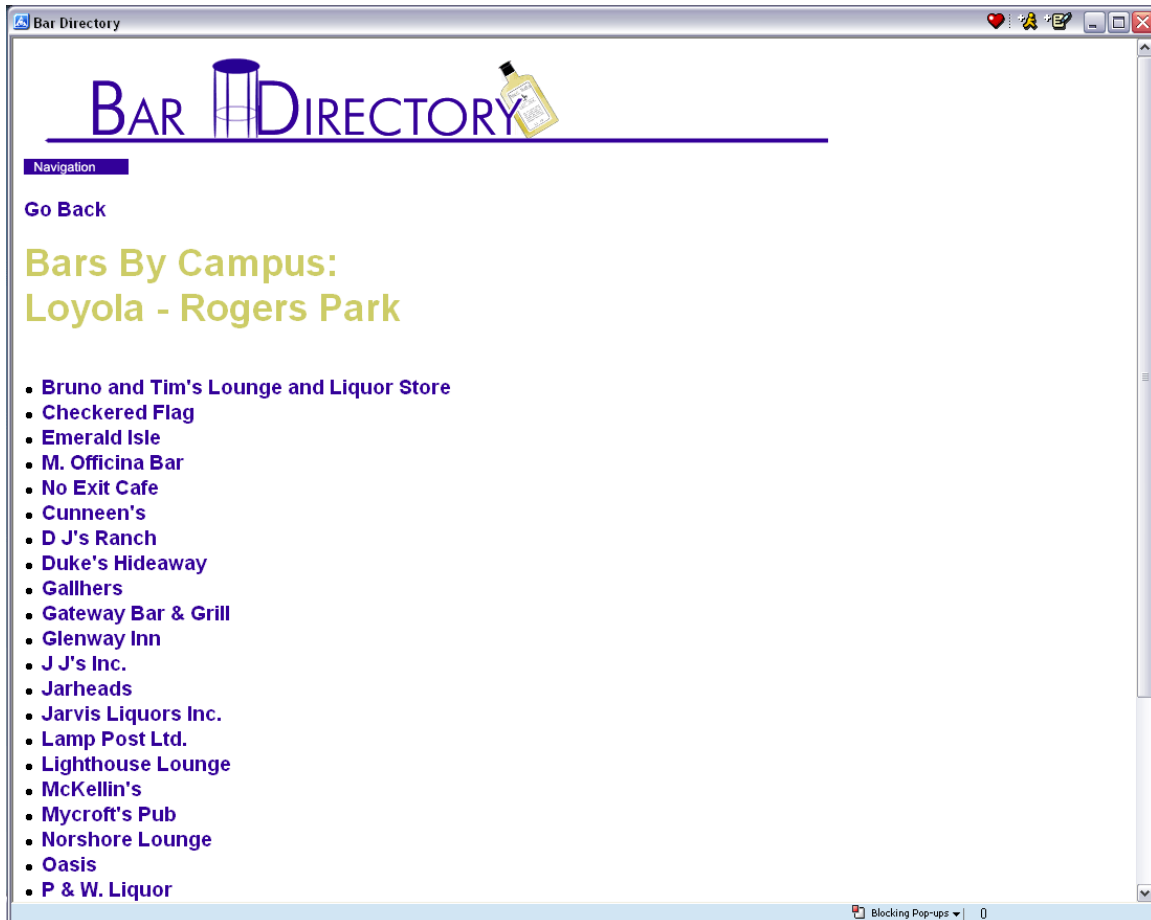
### d) Search by University Campus



Located at the Home page, users may choose to search for a bar by the university campus they are located in. The user clicks on the appropriate school by means of a drop down menu.

## 6.0 Dynamic Web Application

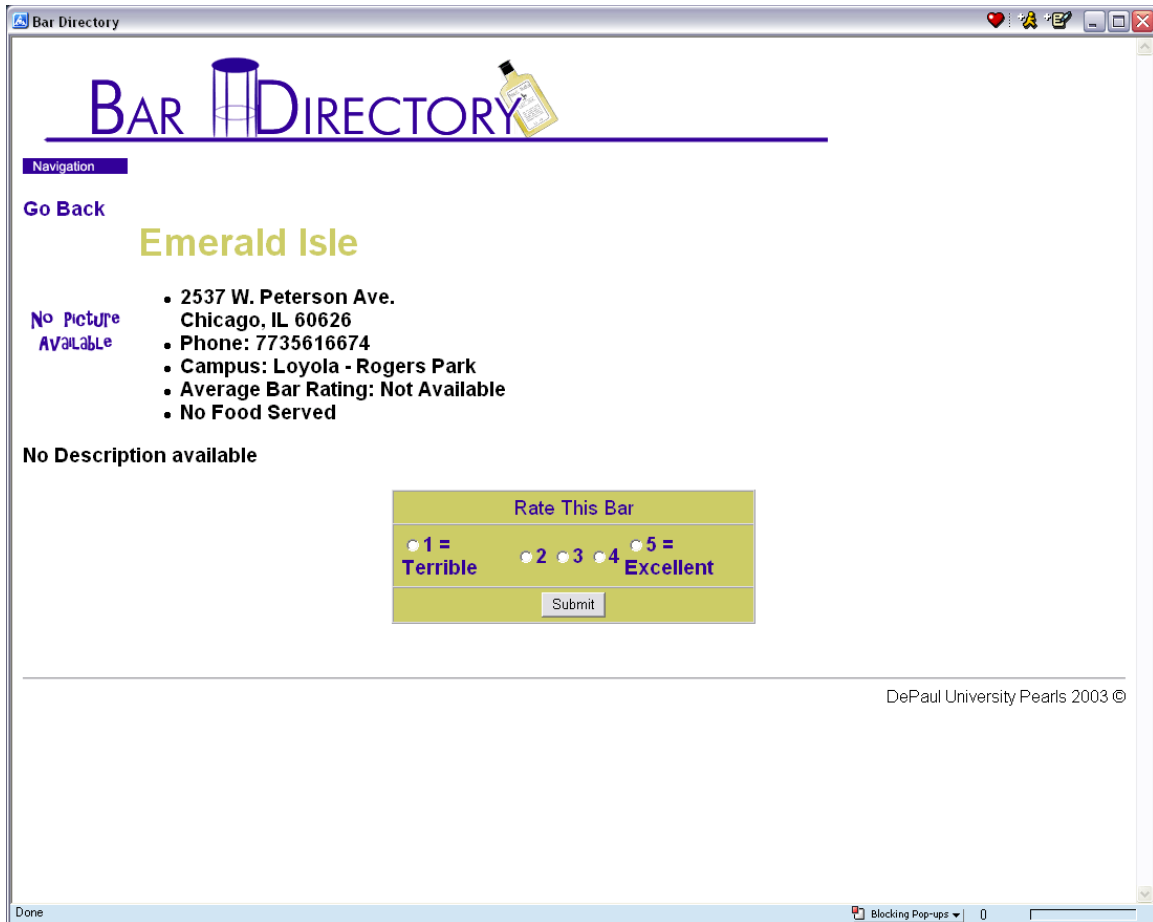
### e) Search by University Campus (continued)



Here the user chooses Loyola, and as you can see a list of all the bars located near the Loyola campus appears. This page also will notify you of the appropriate neighborhood or city the school is in.

## 6.0 Dynamic Web Application

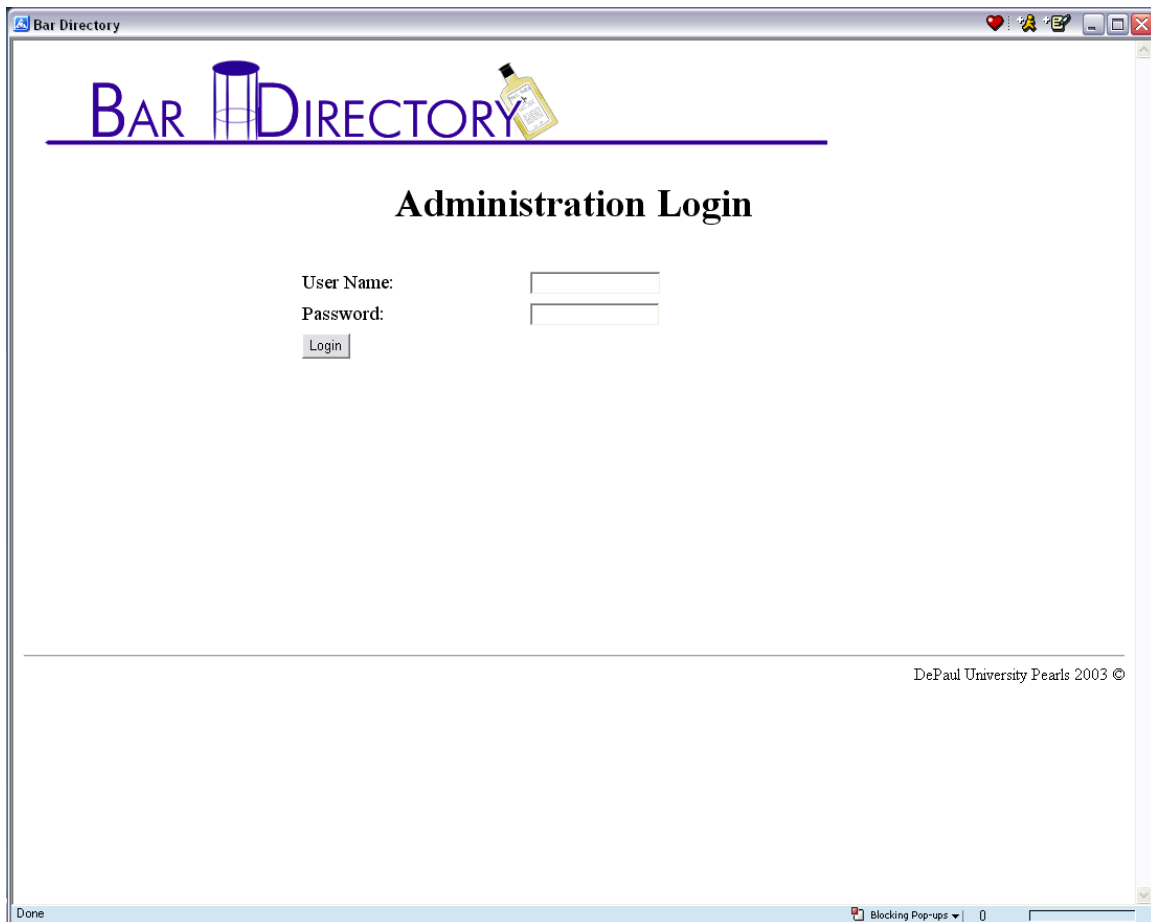
### f) Search by University Campus (continued)



Again we see the chosen bar's information.

## 7.0 Administration

### a) Login

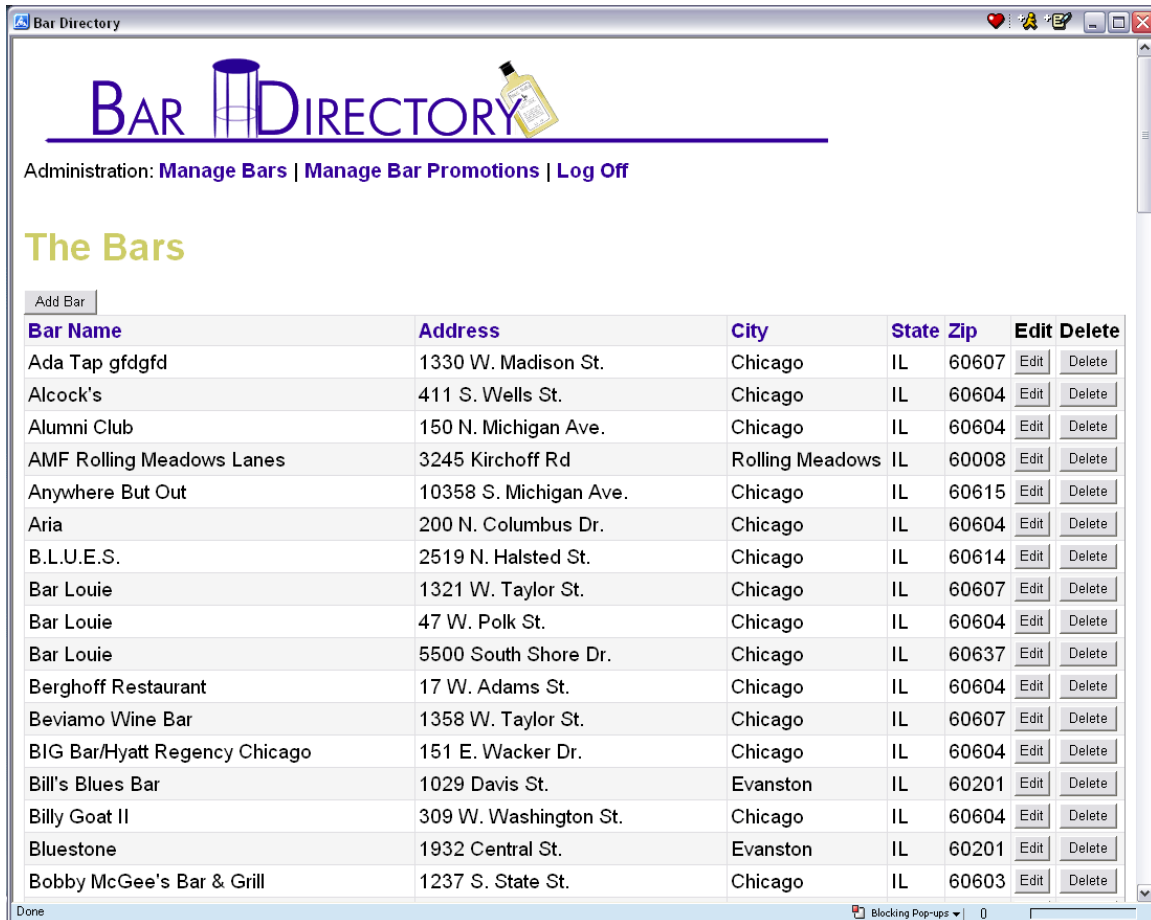


The screenshot shows a web browser window titled "Bar Directory". The page features the "BAR DIRECTORY" logo at the top, which includes a stylized bar glass and a bottle. Below the logo is a horizontal line, and underneath that is the heading "Administration Login". The login form consists of two input fields: "User Name:" and "Password:", each followed by a text box. Below these fields is a "Login" button. At the bottom right of the page, there is a copyright notice: "DePaul University Pearls 2003 ©". The browser's status bar at the bottom shows "Done" and "Blocking Pop-ups | 0".

The administration site allows Bar Directory to maintain bar information and promotions.

## 7.0 Administration

### b) The Bars



The screenshot shows the 'Bar Directory' web application interface. At the top, there is a navigation bar with the title 'BAR DIRECTORY' and a logo featuring a bar glass and a bottle. Below the title, there are links for 'Administration: Manage Bars | Manage Bar Promotions | Log Off'. The main content area is titled 'The Bars' and contains a table listing various bars. Each row in the table includes the bar's name, address, city, state, and zip code, along with 'Edit' and 'Delete' buttons for administrative actions.

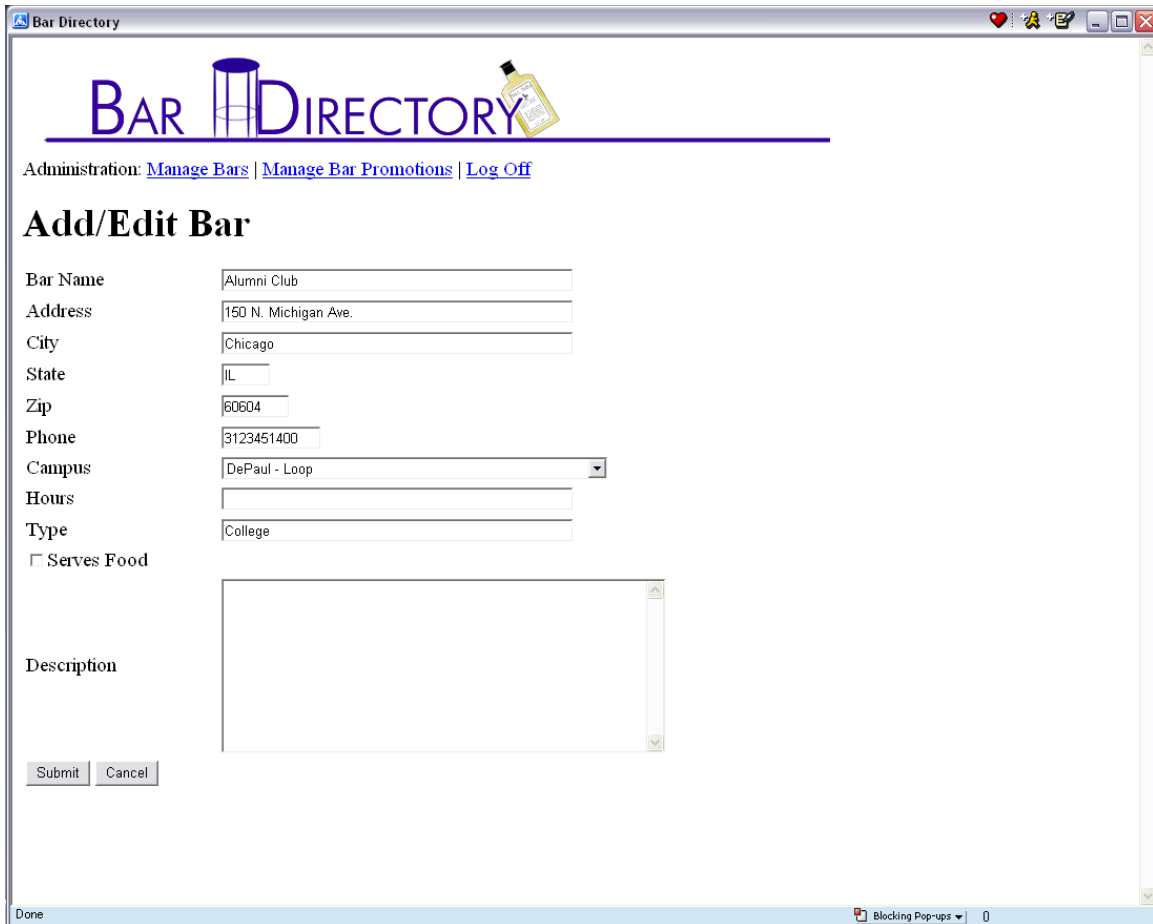
Bar Name	Address	City	State	Zip	Edit	Delete
Ada Tap gfdgfd	1330 W. Madison St.	Chicago	IL	60607	Edit	Delete
Alcock's	411 S. Wells St.	Chicago	IL	60604	Edit	Delete
Alumni Club	150 N. Michigan Ave.	Chicago	IL	60604	Edit	Delete
AMF Rolling Meadows Lanes	3245 Kirchoff Rd	Rolling Meadows	IL	60008	Edit	Delete
Anywhere But Out	10358 S. Michigan Ave.	Chicago	IL	60615	Edit	Delete
Aria	200 N. Columbus Dr.	Chicago	IL	60604	Edit	Delete
B.L.U.E.S.	2519 N. Halsted St.	Chicago	IL	60614	Edit	Delete
Bar Louie	1321 W. Taylor St.	Chicago	IL	60607	Edit	Delete
Bar Louie	47 W. Polk St.	Chicago	IL	60604	Edit	Delete
Bar Louie	5500 South Shore Dr.	Chicago	IL	60637	Edit	Delete
Berghoff Restaurant	17 W. Adams St.	Chicago	IL	60604	Edit	Delete
Beviamo Wine Bar	1358 W. Taylor St.	Chicago	IL	60607	Edit	Delete
BIG Bar/Hyatt Regency Chicago	151 E. Wacker Dr.	Chicago	IL	60604	Edit	Delete
Bill's Blues Bar	1029 Davis St.	Evanston	IL	60201	Edit	Delete
Billy Goat II	309 W. Washington St.	Chicago	IL	60604	Edit	Delete
Bluestone	1932 Central St.	Evanston	IL	60201	Edit	Delete
Bobby McGee's Bar & Grill	1237 S. State St.	Chicago	IL	60603	Edit	Delete

Once logged in, an administrator is able to edit or delete bars.



## 7.0 Administration

### c) Add/Edit Bars



The screenshot shows a web browser window titled "Bar Directory". The page features a logo with a bar glass and a bottle, and navigation links for "Administration: Manage Bars | Manage Bar Promotions | Log Off". The main heading is "Add/Edit Bar". The form contains the following fields:

Bar Name	Alumni Club
Address	150 N. Michigan Ave.
City	Chicago
State	IL
Zip	60604
Phone	3123451400
Campus	DePaul - Loop
Hours	
Type	College

There is a checkbox for "Serves Food" which is currently unchecked. Below the form is a large text area for "Description". At the bottom left of the form are "Submit" and "Cancel" buttons. The browser's status bar at the bottom shows "Done" and "Blocking Pop-ups 0".

Within seconds bar information can be added or changed.

## 7.0 Administration

### d) Bar Promotions



The screenshot shows the 'Bar Directory' administration interface. At the top, there is a navigation bar with links for 'Manage Bars', 'Manage Bar Promotions', and 'Log Off'. Below this is the 'Bar Promotions' section, which includes a table of active promotions. Each row in the table has 'Edit' and 'Delete' buttons. The table contains four entries:


Subject	Body	Edit	Delete
Special \$1 beers all night long!!	At Buddy Guy's Legends, every tuesday night. Address: 1234 State St Chicago, IL 60604 708-343-2322	Edit	Delete
Party all night long !!!	At the Party Club!!! No cover for the ladies. Address: 3434 Main Chicago, IL 60604 708-343-3443	Edit	Delete
Halloween Hangover!	Open bar on halloween night at Buddy Guy's	Edit	Delete
FREE BEER AT PHIL'S HOUSE	SEE SUBJECT YOU DRUNK	Edit	Delete

Below the table, it says 'Total: 4'. The interface also includes a status bar at the bottom with 'Done' and 'Blocking Pop-ups' indicators.

Here the Bar Directory administrator can edit or delete promotions.

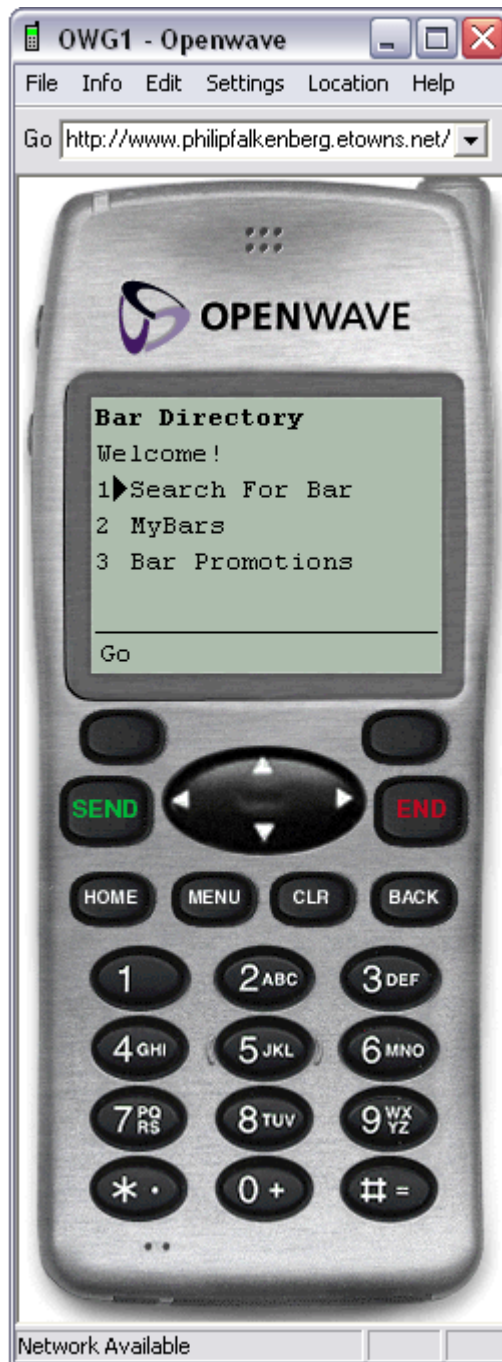
## 7.0 Administration

### e) Add/Edit Promotions



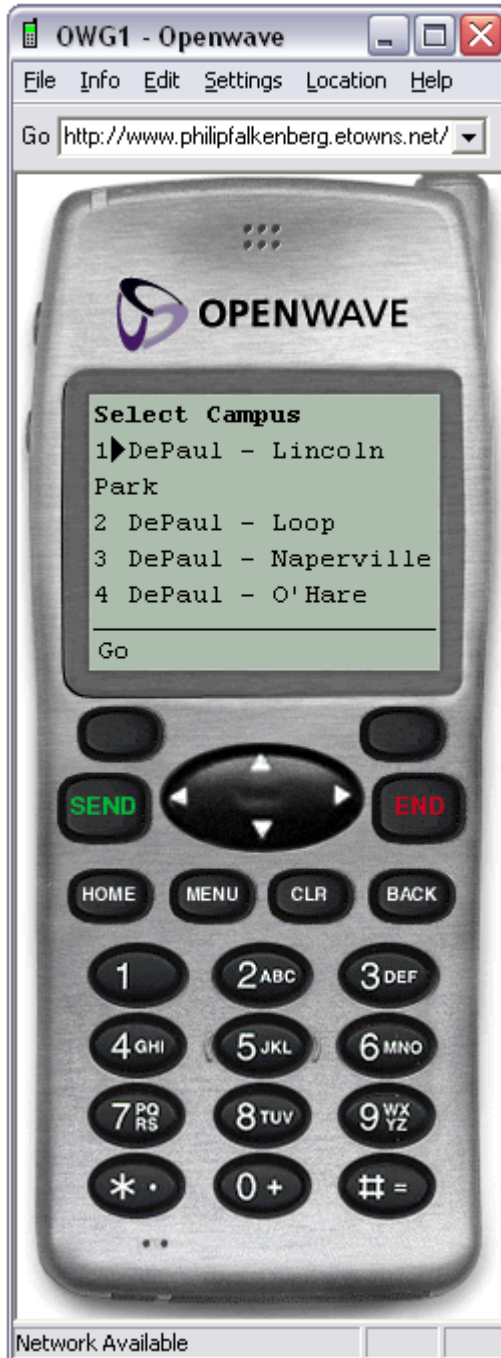
The screenshot shows a web browser window titled "Bar Directory". The page features a logo with the text "BAR DIRECTORY" and an illustration of a bar shaker. Below the logo, there is a navigation menu with links for "Administration: Manage Bars", "Manage Bar Promotions", and "Log Off". The main heading is "Add/Edit Bar Promotion". The form consists of a "Subject" text input field and a "Body" text area. At the bottom of the form are "Submit" and "Cancel" buttons. The browser's status bar at the bottom shows "Done" and "Blocking Pop-ups" with a count of 0.

## 8.0 wml



## 8.0 wml

### a) Search by Campus



#### Search For Bar

Here the user is able to choose which campus he or she is looking for a bar near.

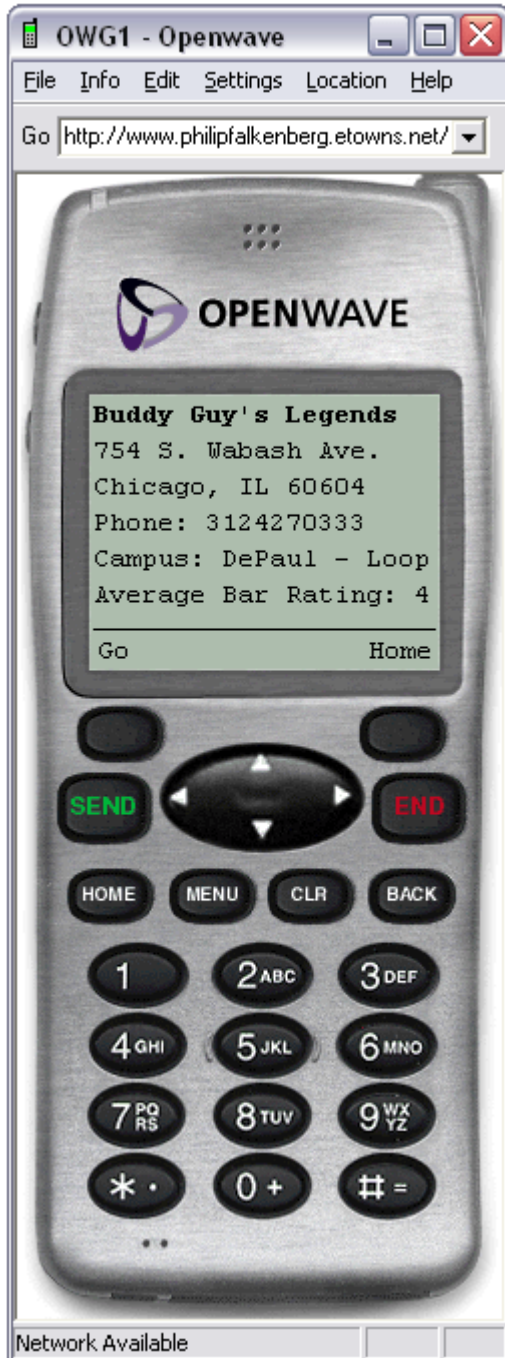


#### DePaul - Loop

This screen shows the list of all the bars in the Loop near the DePaul campus.

## 8.0 wml

### a) Search by Campus (continued)



#### Buddy Guy's Legends

Once the desired bar has been chosen, the user receives the above information.

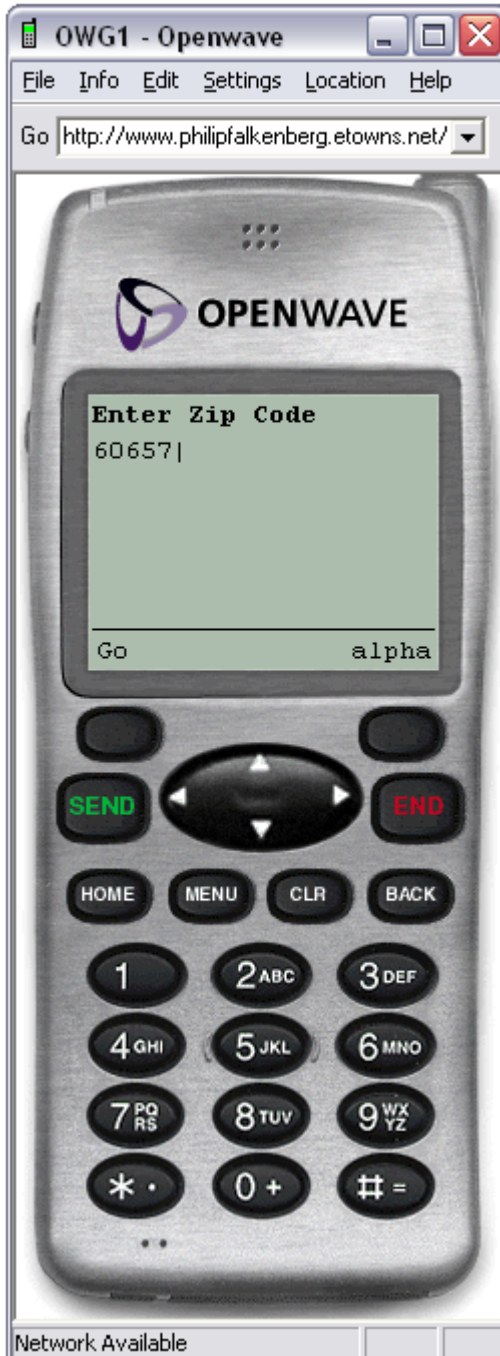


#### Rate the Bar

Here the user is able to give the bar a rating according to how much the bar was liked.

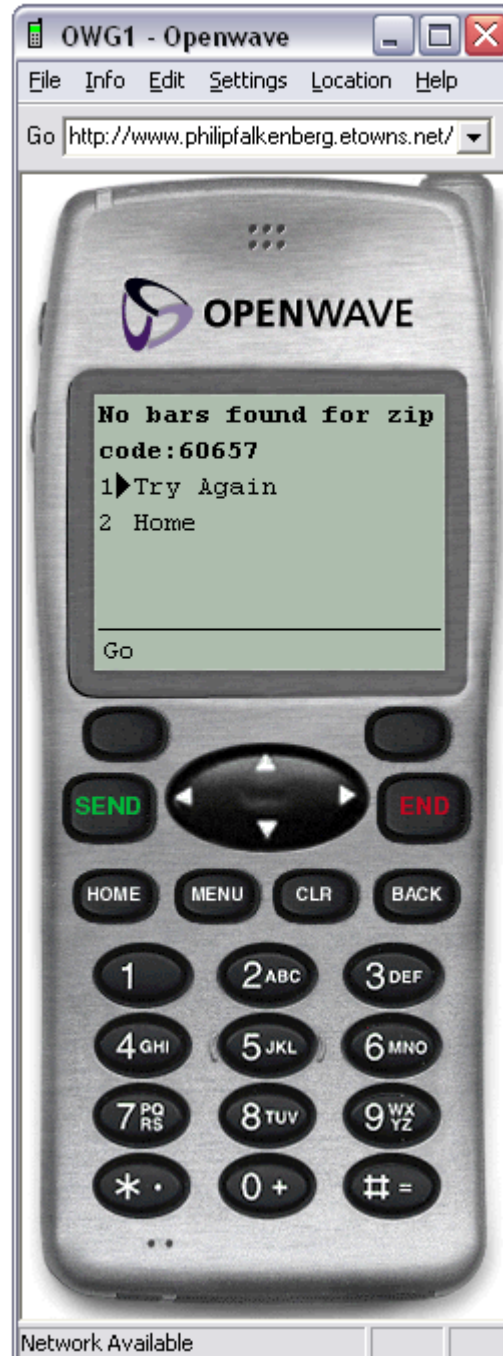
## 8.0 wml

### b) Search by Zip Code (Error)



Enter your Zip Code

Enter the zip code of the area you are looking for a bar in.



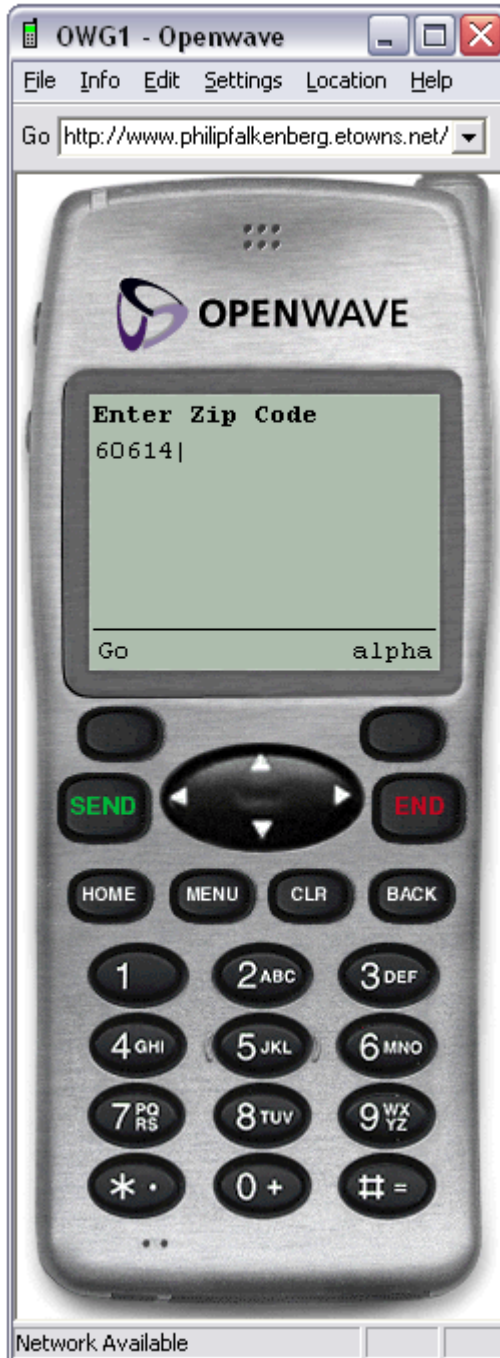
Invalid Zip Code Error

Error message appears when you enter a zip code that is not supported.



## 8.0 wml

### c) Search by Zip Code



#### Search For Bar

Here the user is able to enter the zip code he or she is looking for a bar near.



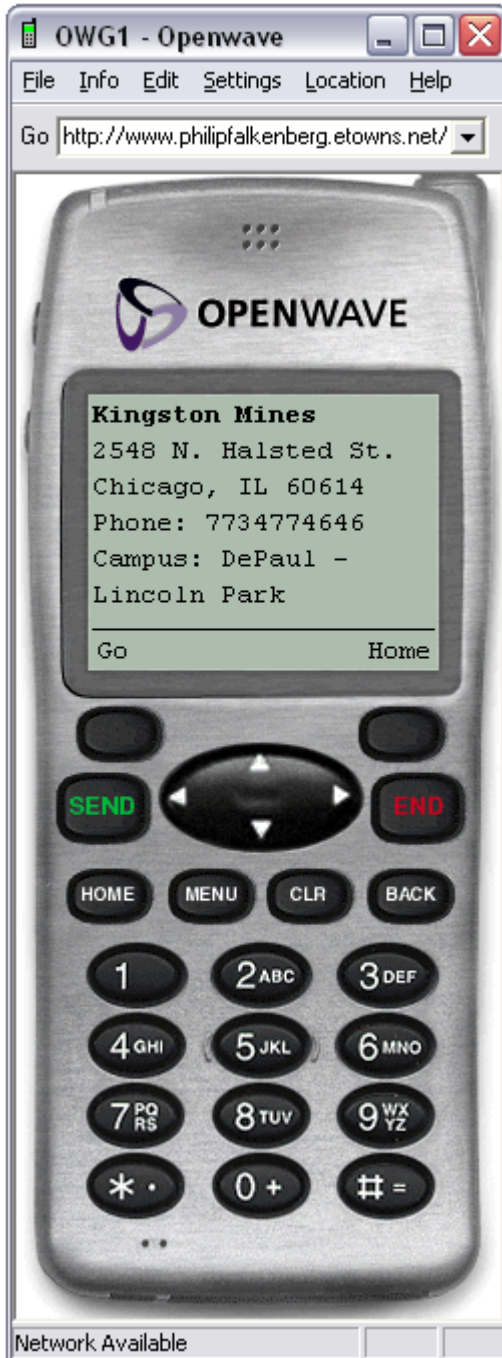
#### DePaul – Lincoln Park

This screen shows the list of all the bars in Lincoln Park near the DePaul campus.



## 8.0 wml

### c) Search by Zip Code (continued)



#### Kingston Mines

Once the desired bar has been chosen, the user receives the above information.

## 8.0 wml

### d) Search by Name



Search For Bar

Here the user is able to enter the name of a bar to find its location.



Enter Name

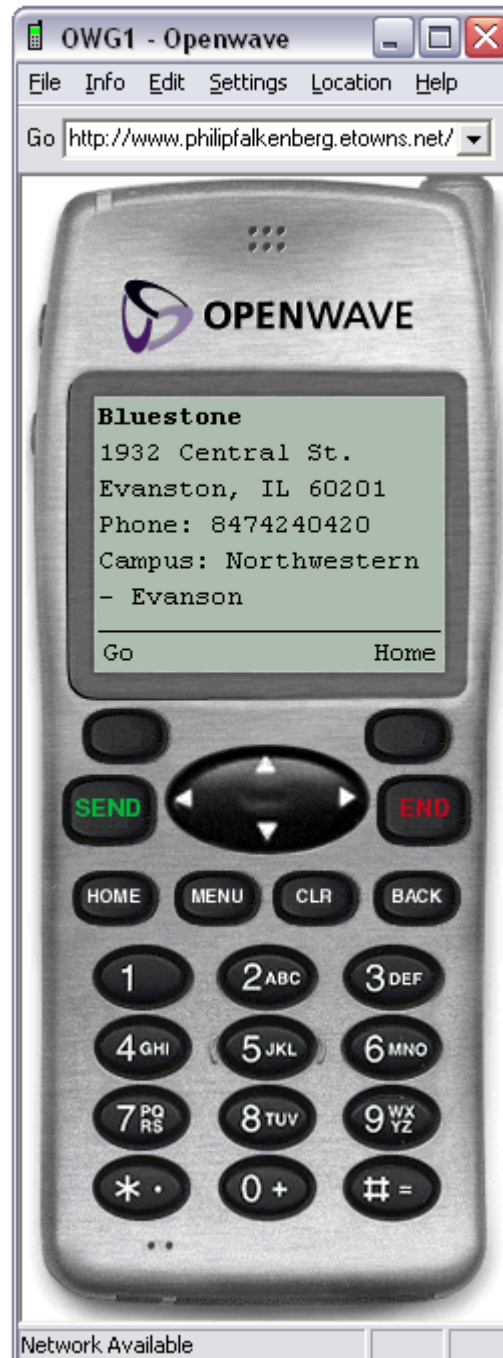
You don't need to know the whole name; part of the name will narrow the search.

## 8.0 wml

### d) Search by Name (continued)



Bars that have Blues in them  
The search found two bars that y can  
choose from.



Bluestone  
Once the desired bar has been chosen, the  
user receives the above information.

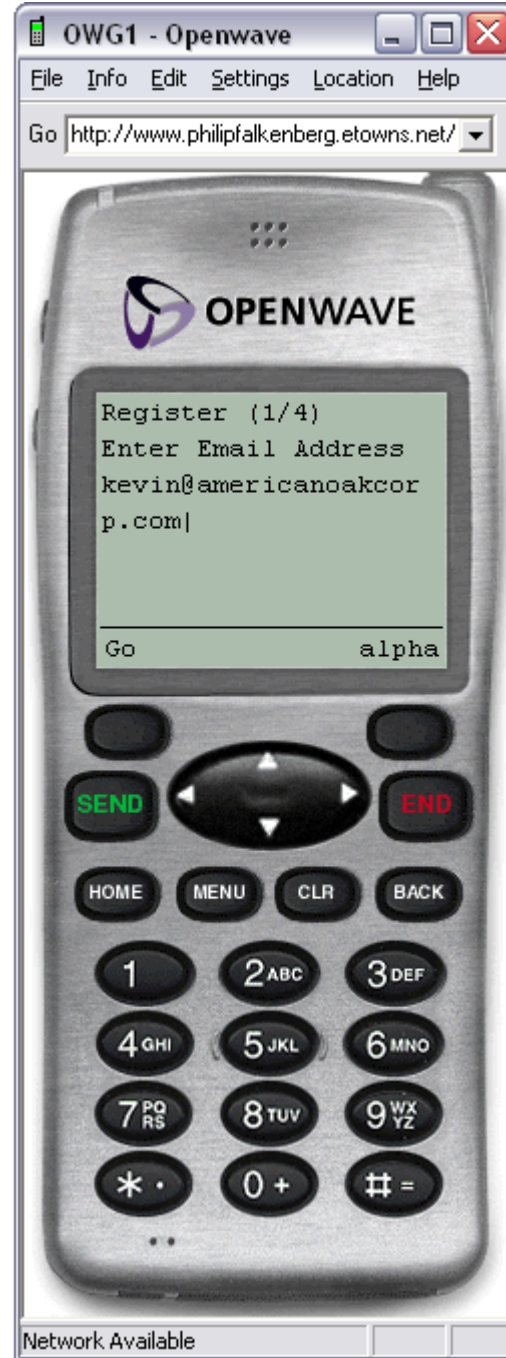
## 8.0 wml

### e) MyBars Register



Register

To quick find your favorite bars, you must first register.

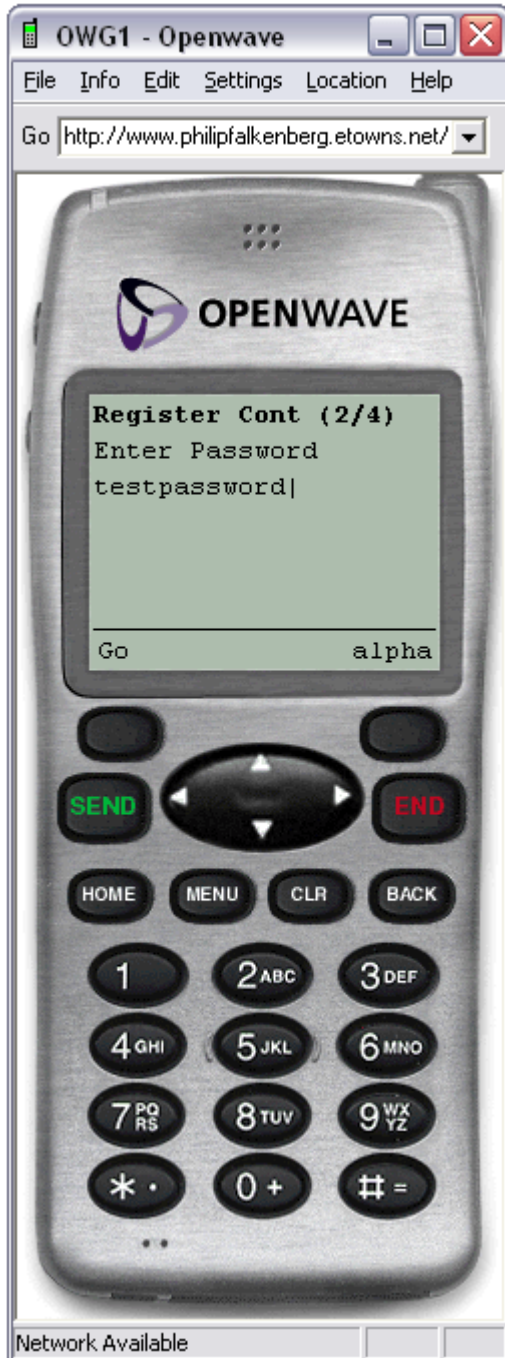


Email

There are only four simple steps to register; the first is by entering your email.

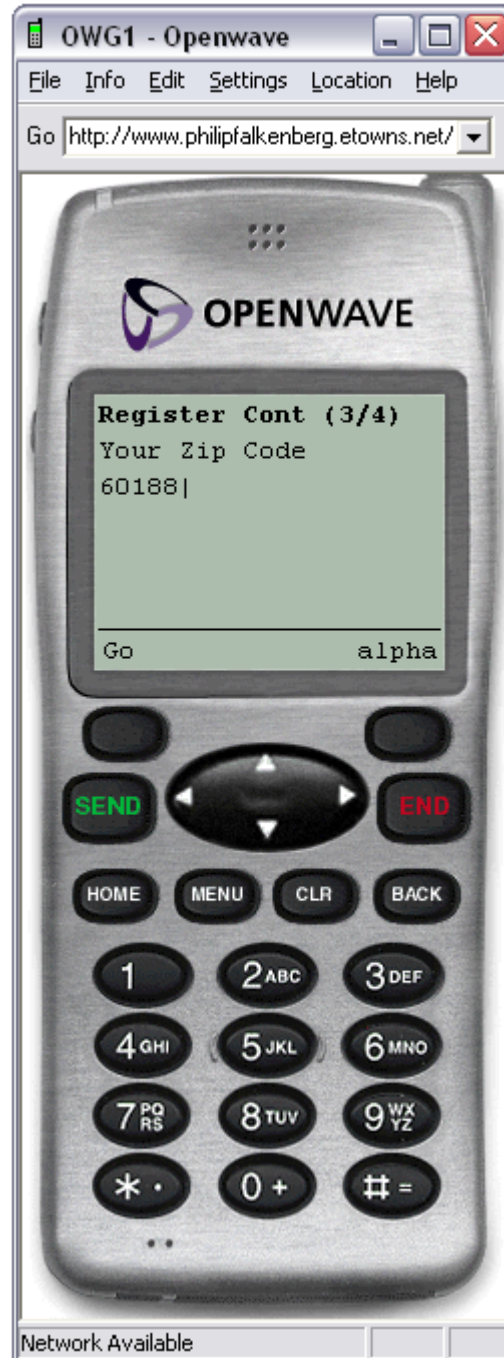
## 8.0 wml

### e) MyBars Register (continued)



Password

You will need this password when logging in to the Bar Directory.



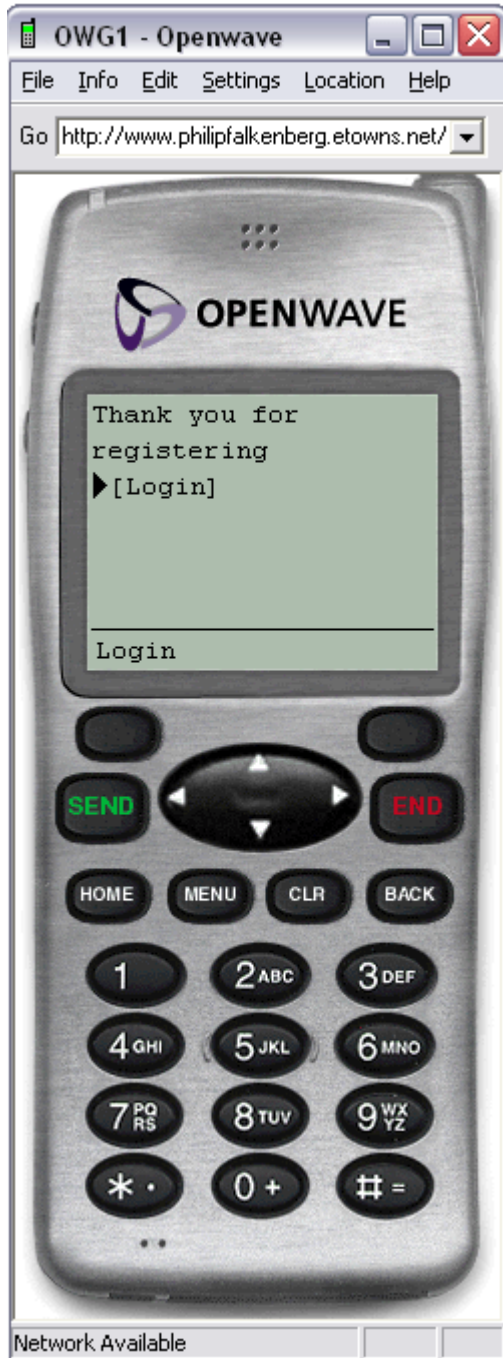
Zip Code

This tells the Bar Directory which bars are closest to your home.



## 8.0 wml

### e) MyBars Register (continued)

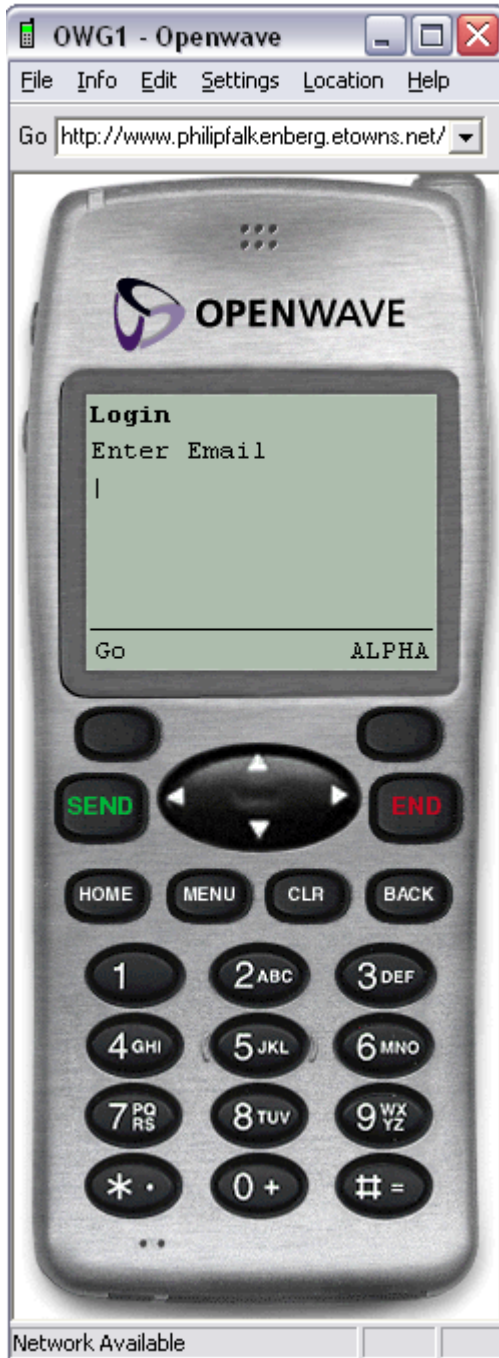


Thank you

You have completed registering; you may now login here or under MyBars.

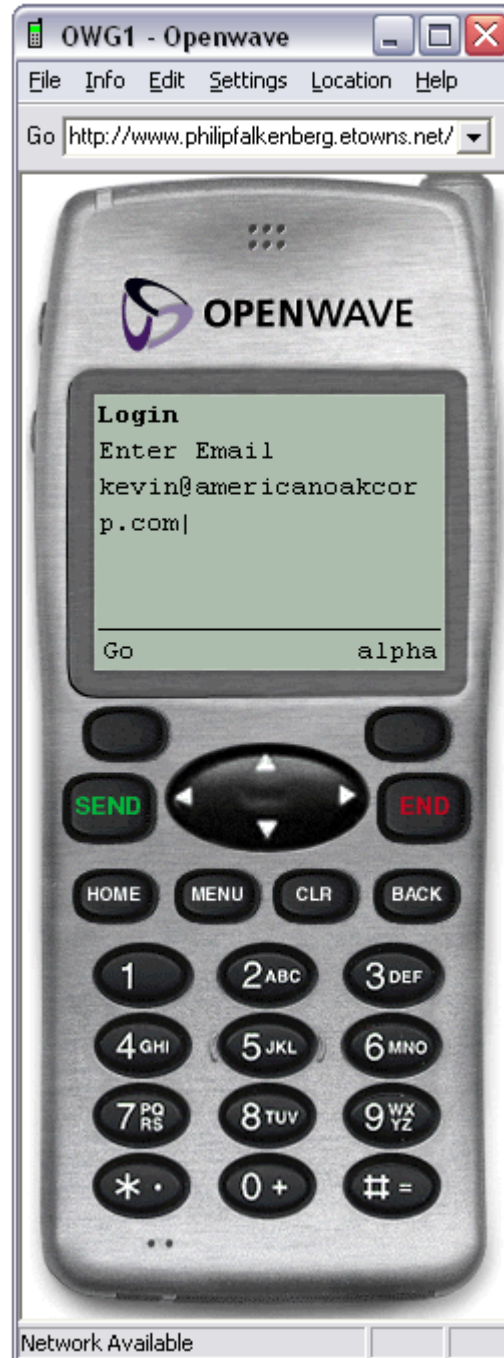
## 8.0 wml

### f) Login



#### Login

Here is where you can access MyBars.



#### Enter Email

Enter the same email address you registered with.

## 8.0 wml

### f) Login (continued)



#### Enter Password

Enter the same password you registered with.



#### MyBars

Here is a list of all of your bars in your primary campus, along with other info.



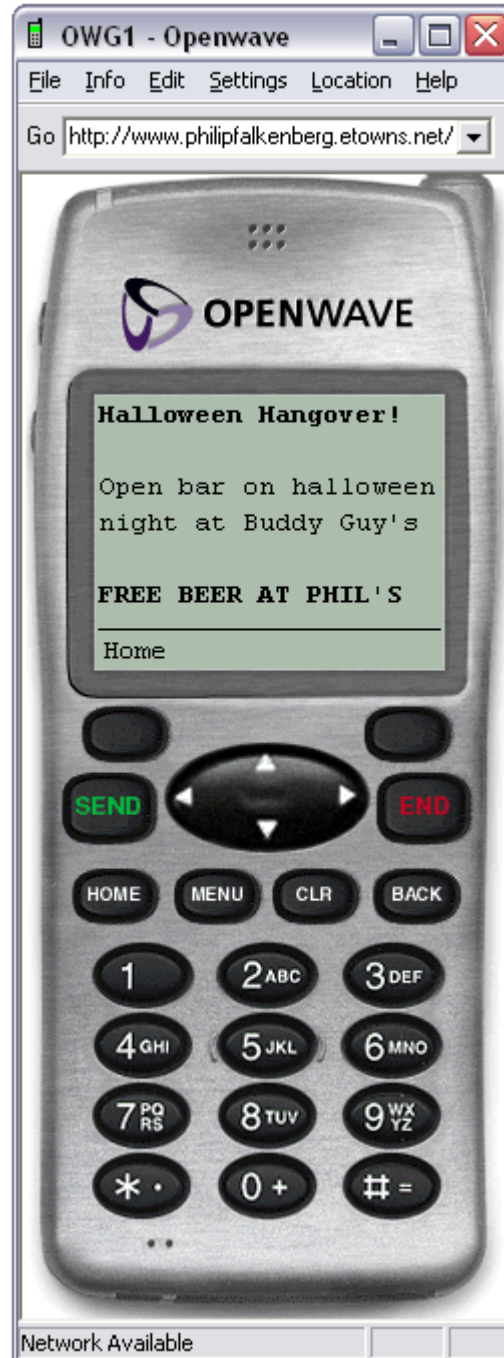
## 8.0 wml

### g) Promotions



#### Promotions

Sample promotions and ads that a bar would buy space for.



#### Promotions

Sample promotions and ads that a bar would buy space for.

## 9.0 Testing

### 9.1 Testing Plan

- Goal of Testing Plan:

To prove that the application doesn't meet the design specifications agreed on, based on what problem we are trying to solve for our client. Also, to prove that the code is flawed in a way that produces errors or causes the system to halt or crash. This way we can fix all errors and will be able to produce an error free application.

- Design Specification Check

- Thoroughly read through the design requirements decided upon by the group.
- Ran application over and over to see all features available.
- Recorded design requirements not reached.
- Recorded extra features that are not needed and taking up space.
- Discussed findings with team and look for ways to implement missing parts and what to do with extra features.

- Code Check

- Use a wide variety of test cases.
- Tested with flawed and flawless input and as many combinations of the two as possible.
- Checked the output generated by the program very carefully.
- Tried to detect all errors; from spelling mistakes to system crashing mistakes.

## 9.2 Heuristic Evaluation

### Usability Heuristics Evaluation of Interface Design:

(Steps taken from Jakob Nielsen's "Ten Usability Heuristics")

#### Visibility of system status:

For most cell phone applications, there isn't applicable room for objects such as an hourglass or a status bar to keep track of loading times. The last line on the screen however, does show you where your cursor is pointing to. When you go into the specific location of the city in which you want to find bars, the top of the screen will always remind you where you are. Next to the location there is a fractional display that lets you know how many bars are in the corresponding area, and the number you are currently viewing.

#### Match between system and the real world:

There is a little confusion when you cannot physically see a button, for example, at the bottom of the screen there always are two options you can chose from. To enter these options, you must click on the button just below them; this task is very easy to learn, but small arrows would help. The [Home] button is a nice feature that will allow the user to always go back to the beginning of the site.

#### User control and freedom:

The Bar Finder application exhibits good safety controls such as a [Prev], [Next] and [Home] buttons. Exits are easily found in this application.

#### Consistency and standards:

As a user, there shouldn't be any problems with the word choices used in this application. It is kept clear and strait forward. Two or more words are not used when one is sufficient enough.

#### Error prevention:

This is a well planned out design that prevents many errors from ever occurring. As stated before, clear directions and safety buttons to get the user back are used.

#### Recognition rather than recall:

The layout and design permit for easy recognition of previous items and locations.

## 9.2 Heuristic Evaluation (continued)

### Flexibility and efficiency of use:

There is a MyBars feature that allows users to explore the bars that are close to their “home” area. Once logged in, the user can customize these features. A ratings system has also been put into place, which allow for easier decisions when choosing a bar.

### Aesthetic and minimalist design:

This has to be a minimalist design, because of the application used. There is no room for extras, just short to the point directions...which this application already supports.

### Help users recognize, diagnose, and recover from errors:

A simple touch of the [Back] button will solve almost every error in this current state.

### Help and documentation:

Help is provided throughout this manual, but can also be received online at the Bar Directory web site.

## 10.0 Bar Directory Group Information

### The Pearls Group

Member	Job	Email
Tim Boltz	Testing Manager	<a href="mailto:timboltz@hotmail.com">timboltz@hotmail.com</a>
Philip Falkenberg	Chief Implementer, Presentation Manager	<a href="mailto:pfalkenb@students.depaul.edu">pfalkenb@students.depaul.edu</a>
Mojisola Erogbogbo	Manager	<a href="mailto:Mojisola17@hotmail.com">Mojisola17@hotmail.com</a>
Mark Jourdan	Web Master	<a href="mailto:mjourdan@students.depaul.edu">mjourdan@students.depaul.edu</a>
Kevin Osburn	Documentation Manager	<a href="mailto:Kevin@americanoakcorp.com">Kevin@americanoakcorp.com</a>
Tariq Puthawala	Chief Designer	<a href="mailto:Trickstar3082@yahoo.com">Trickstar3082@yahoo.com</a>
Rane Yahya	Planner	<a href="mailto:raneyahya@aol.com">raneyahya@aol.com</a>

(The Time Logs on the next few pages have been left in the original format. Putting them in a table was the only change made.)

## 10.0 Group Time Logs

Tim Boltz

Date	Hours	Task
9/10	1.5	Discussed with members ideas for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses. Discussed our roles for the group.
9/15	2	Tested code for concept demo, and talked with Philip on how to expand demo to meet required page lengths.
9/22	1.5	Set up Access database for Kevin to load bar data.
9/28	2	Tested code for application at midway point and talked to Philip.
10/20	2	Documented test plan and began testing of final bar application.
10/21	3	Tested final bar application thoroughly and submitted bio and time log.
10/28	2	Created flow charts of processes in application.

Total: 14 Hours

## 10.0 Group Time Logs

### Philip Falkenberg

Date	Hours	Task
9/10	1	Discussed with members ideas for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses. Discussed our roles for the group.
9/12	2	Read UPSimulator documentation. Learned how to run phone simulator and setup webserver to serve wml files. Also read the wml documentation. Experimented with wml tags and creating some test wml pages.
9/13	2	Did planning and design concepts for bar directory application. Created pages where user can select a campus and view bars for that campus.
9/16	2	Redesigned navigation for site. Added "next" and "previous" buttons to each bar page so the user can easily navigate to another bar and not have to go back to main page. Did testing of entire wireless application.
9/16	2	Designed and implemented companion html website for wireless application.
9/20	4	Learned how to use .NET to build mobile applications. Read quick start tutorial on basics of mobile applications including: forms, using mobile controls such as textbox and select box, session state, validation of user input, and reading and writing to a database.
9/27	4	Developed Search Modules of Bar Directory mobile application. Created a select box control on mobile form to select between searching for bar by campus, zip code or name. Developed class which encapsulates accessing and updating data in the Access database.
9/28	4	Developed Registration, Login, and Bar Promotions modules of mobile application. Added textbox controls to the registration form so a user may enter their email, primary campus, username and password. Binded validation controls to textbox controls to check user input.
9/29	4	Started PowerPoint Prototype, Design, Plan slides. Created the first four slides which included the overview of the project, problem statement, proposed solution, and demo of prototype. Wrote the Software, Hardware, Security, Supported Environments and Programming Languages sections of the design documents.

10/4	4	Started development of final Bar Directory wireless application. Coded Bar Promotions Module. Connected web application to wireless application. Developed administration page that allows admin to add a bar promotion which is viewable on mobile application.
10/18	8	Developed dynamic ASP.NET website for bar directory application. Allows user to search for bar by zip code, campus, view bar information, and rate a bar. Developed administration pages to Manage Bars, and Bar Promotions.
10/19	4	Added features to wireless bar directory application including viewing bar promotions, details and description of bars, and rating a bar.
10/27	1	Compiled a text file of sample code with comments for project booklet.

Total: 42 Hours



## 10.0 Group Time Logs

Mojisola Erogbogbo

Date	Hours	Task
9/10	1.5	Discussed with members ideas for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses. Discussed our roles for the group.
9/15	0.5	Group presentations. Took notes on points and weaknesses of the presentation, which were; no business plan, no code was shown, not looking at the class while giving the presentation, and that it is quite risky for one person to give demos (co-ordination). Sent Tim an e-mail to give him an update on the demo because he wasn't in class.
9/22	3.0	Listened to class lecture on "Design Demo". Decided what task to participate in during group discussion. Attended Managers meeting with the Professor. Met with Tariq to figure out the design layout for this project. Started on the DFD diagrams. Sent e-mail to group members about attendance and also asking everyone to send e-mails to Rane on what their tasks are and when (time and date) they are going to carry them out, to help him with the plan demo. Took note that Kevin and Tariq would not be at the class so I can account for them. E-mailed group members to have them send me an e-mail if they know they are not going to be at any class meeting.
9/24	0.5	Attended class lecture, took notes on handler programs and logical reasoning. Discussed with group members about changing the project and decided not to by the end of class.
9/29	1.5	Class discussion on Prototype, Design and Plan Demo. Talked to members about updating their time logs. Continued Level 0 diagram with Tariq. Took notes on cultural time, expected value and sunk cost.
9/30	1.0	Worked on Plan Demo with Rane. Helped figure out how to use Microsoft Project to edit the implemented Gantt chart. Scheduled a meeting with Rane and Tariq for 10/1
10/01	2.5	Met with Rane and Tariq. Worked on Gantt chart. Edited, Gantt chart,

		indenting, adding tasks and allocating group members to the different tasks. E-mailed group members the final power point presentation demo and discussed Implementation Plan presentation. Presented Plan demo, took notes on areas we needed to work on and worked out the assignment of the remaining tasks with the rest of the group. Talked with group members about adding more stuff to the project like a budget, business plan, administrative bar and documentation.
10/06	1.5	Took more notes on sunk cost, satisficing vs. satisfying and more valid midterm questions with answers. Discussed with group members on assigning tasks for the preview demo which was coming up on the 22 <sup>nd</sup> of October. Decided to work on business plan and budget.
10/08	4.0	Figured the difference between plan and design from class lecture. Worked on revising Business Plan and researching our budget for the project in various areas. The time duration of the project, our source of revenue, our expenditure, taxes and fees, our progress at this point, how much our workers and consultants are going to be paid and cost for equipment, supplies and maintenance. E-mailed members my work and made changes where necessary as they suggested.
10/13	0.5	Took notes on central organizing principle, the two types of criticism and their effects, and the handler program.
10/15	0.25	Sent an e-mail to the Cubic Zirconium group (as assigned to us by the teacher) from the evening class regarding our up coming maintenance demo. Requested that they please send us their design modules and the zipped file of their project so we can start making plans on extending it.
10/20	1.75	Didn't get a reply from the Cubic Zirconium group on the e-mail sent to them for the maintenance demo. Informed the teacher about this and asked him to please let them know that we are trying to reach them for our maintenance demo. He recommended sending another e-mail so I e-mailed them once again asking for the zipped file of their project. Worked with Tariq and Kevin on searching for power point templates, clip arts and music for preview demo.
10/22	1.5	Listened to lecture on midterm review. Acted as back-up for the groups preview demo. Noted the importance of dress code for our final demo the following week. Decided that 3 people are going to be working on the maintenance demo.
10/27	1.5	Took notes on continuation of midterm review, and more calculations of sunk cost. Received 2 replies from Cubic Zirconium group and found out that it wasn't quite clear on how the maintenance demo is supposed to work. Some people thought we were supposed to work on each others project. Straightened this out with teacher and sent them an e-mail that they could extend our project and we are going to be doing Ruby Red's

		project from class. E-mailed everyone a reminder of dress code for the final demo, especially those that weren't in class.
--	--	--

Total: 21.5 Hours

# 10.0 Group Time Logs

## Mark Jourdan

Date	Hours	Task
9/10	1.5	Discussed with members ideas for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses. Discussed our roles for the group.
9/10	1	Worked on the web site - Did the basic layout and added the .CSS template
9/11	.5	Worked on the web site - Worked on Time Sheets and adding members
9/12	2	Worked on the web site - Worked on updating time sheets. Did some work in Photoshop to work with some graphics
9/15	.5	Meet as a group and talked about the website and some changes I needed to make
9/17	2	Changed the web site completely around getting rid of a lot of customization
9/20	1	Worked on the clean logo for the top of the web site. Did it in Photoshop & Illustrator.
9/22	1	Talked about my logo some and decided which one I was going to go with. We also met as a group to talk about future presentations.
9/24	3	Worked on getting the new bar directory up on the website. It is the basic clean layout we were looking for.
9/28	2	Worked on the website a bit more putting a little information up about the bars and cleaning up the layout for the individual bar pages. Also created the template for those pages. I also worked in Photoshop to create a button and a logo for rating the individual bars.
9/29	.5	Met as a group in class to work on the project
9/30	1	Finished putting everything up on the back up server, corrected times, updated the address and bar pages. Made sure all servers were up and running properly.
10/6	.5	Met as a group to discuss what was next and to plan what we needed to get done for the next presentation. We also decided what we were going to turn in for budget.

10/8	3	Worked on creating a navigation for the site, created an about us page, a help/FAQ, and contact page. All static pages seeing they do not need to be updated often and will only be in control by webmaster.
10/10	.5	Added my own bio and picture up on the website.
10/11	1	Worked on getting ECT web up and running, also created a small ASP.NET program to test on the server to make sure it worked.
10/13	.5	Met as a group and planed what we needed to get done for the next presentation. We also decided what we were going to turn in for budget.
10/15	1	Updated everyone's time logs and added Kevin's bio and picture.
10/17	.5	Added a few more bios, and FAQ parts to the website.
10/21	.5	Looked at the final presentation and prepared my speech
10/22	.5	Gave my part of the presentation in class.
10/24	1	Set up ASP.NET on my computer for another backup server
10/25	1	Fixed some errors on my computer for the server so that ASP.NET could work
10/27	1	E-mailed a lot of information over the listserv and between groups. Worked on the server with Phillip to make sure its completely up for Wed. presentation. Also worked on time logs and making sure everything is up to date.
10/29	.5	Presented final presentation
11/2	.5	Updated time logs for everyone, also added stuff to my time log.

Total: 27 Hours

## 10.0 Group Time Logs

Kevin Osburn

Date	Hours	Tasks
9/10	1.5	We discussed ideas for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses.
9/10	.5	The group members discussed the rolls they wanted; I am currently the Documentation Manager. We also discussed more ideas that we could add to our directory. These included listing the bars location, hours open, the type of bar it is and if they served food.
9/12	1	I located a list of bars for the DePaul Loop and Lincoln Park Campuses. I then recorded the addresses and phone numbers and sent them to the group to review them.
9/17	2	I reviewed the interface design and wrote up Usability Heuristics Evaluation to help out with the testing end of the project. For this documentation, I referred to the 10 heuristics of design.
9/22	3.5	Our group discussed ways to expand our current project. We decided to expand the current "Bar Directory" into including all major universities in the Chicago land area. We also thought of adding in a bar rating system where users could rate the bars online or the use of their phone. I researched and recorded the addresses and phone numbers for additional bars.
9/24	1	I researched the locations of all the bars in all seven DePaul campus areas. As I found bars, I entered the addresses and phone numbers for all of the DePaul area bars into the Microsoft Access database. I received the database from Tim, who put together the bar and campus tables.
9/28	1.5	As a group we decided to add more then just DePaul bars to the database. After discussing this, I researched all of the major universities in Chicago. I then searched the bars that were near these universities. Entered in the addresses and phone numbers for more Chicago University bars into the database.
9/29	1	I added the Specials, Ratings, Images, and Hits tables to the database. These new tables will help expand our current project and make it more complex. I then sent the database to Phillip so he could add to the code.
10/01	1.5	I updated the Database with bars for other Chicago Universities.

		(Roosevelt, UIC, IAI, Northwestern, UofC and Loyola) Once updated, I emailed Phil to notify him of the new database.
10/03	2	I researched more information on the bars already put into the database. Then added the type of bar, hours open, and food available to bars in the database.
10/10	1	Today I started to create the layout of the final documentation. I gathered all the files that were complete off of our yahoo groups web site. These files were then organized and placed into a folder created to house all the files I would later need.
10/13	1	After class I talked to everyone to see if they could get me all the information they were working on, so I can continue gathering files. I then went to the lab for about an hour to help Tariq and Mojisola format the preview presentation using Microsoft Power Point.
10/15	1.5	I put together parts of the final documentation by collecting and organizing data. I then started to come up with the index page to help separate the many different parts of the documentation. I also created the cover page we will be using in the final version of the documentation packet.
10/22	3	I took screen shots of all the wireless, administration, and web pages. I then cropped the images and started to add them to pages for the documentation. I also added comments to explain how the application was layed out.
10/27	1.5	I finished up the index page and started putting the documentation together. I added the intro and business plan and added additional information.
10/29	1	I took screen shots of the all the database tables and added them. I then reformatted all the diagrams and images to fit the documentation.
11/2	1	I added in the time logs, additional charts, and some last details to the documentation.
11/4	2	I completed the documentation and brought it to Kinko's for copying. I made 8 books for everyone in the group and our teacher.

Total: 27.5 Hours

# 10.0 Group Time Logs

## Tariq Puthawala

Date	Hours	Tasks
9/10	1.5	get into groups, decide briefly about project to undertake. Listen to lecture in class about backups and some wml syntax.
9/14	.75	inspect initial version of our bar browser. study wml reference guide, lookup syntax and attributes of the wml tags. add another "do" tag in the bar browser to make browsing easier (home label for quick exit back to the homepage).
9/15	1.5	listen to lecture in the class. get into groups and discuss the status of the code. inform phillip about possible design changes to the concept demo.
9/16	.75	check out week one & two weekly.html files to ensure we are in compliance with all required work.
9/17	1.5	listen to lecture in class about presentations and their nuances. watch the three presentations given by the groups. get briefly into groups and discuss the roles each person will be undertaking.
9/20	2	create list of database tables with fields and primary/foreign keys. determine major modules/processes needed for the project along with the entities. look over design requirements and view sample design documents.
9/22	2.5	further discussion in class regarding processes and modules. discuss requirement for the prototype demo. later, meet up with mojisola and work on microsoft visio level 0 diagram.
9/27	3.25	work on design document which include feasibility of our application, reasons behind its importance, listing of modules and their function. later in the day, worked on drawing the context diagram and level 0 diagram. Begin working on data dictionary and finish documenting all tables and their respective field names.
9/29	3	meet in groups and discuss the presentation on wednesday. Select presenters. later show Rane how to use Microsoft Project and Microsoft Visio. work with Moji to complete level 0 diagram and also set relationships to the database and print ERD diagram.
9/30	1.5	revise powerpoint done by phil. add all design slides and restructure presentation for aesthetic reasons. talk to phil on the phone about the procedure of the presentation and talk to rane about his planning documents.



10/01	4.5	meet with rane and mojisola and help them put together the planning documents. do rough sketch of planning schedule and then print out and format the reports. put together preliminary documentation booklet and add planning slides to powerpoint. talk to mojisola about what slides she has to present. then during class do the presentation along with phil and mojisola. upon completion of presentation, discuss with the group about what's next and compile a to-do list.
10/06	1.5	class discussion, then briefly meet in groups to discuss who is to do what. assign tasks needed to be done by next monday to members.
10/08	3	class discussion, meet in group, go over agenda. then after class redo the microsoft project planning document and print out various reports including gantt chart and task schedule.
10/11	2.5	look over mojisola business plan and make changes. add other relevant business plan material including cash flow analysis, internal rate of return, and net present value. redo entity relationship diagram.
10/20	1	work with mojisola and kevin in lab to generate ideas for preview demo powerpoint. download templates, music, pictures, etc.
10/21	1.5	create powerpoint for preview demo. add animation, music and all pertinent slides. talk with phil regarding the preview demo, including the structure of the presentation.
10/22	.25	give presentation in class for preview demo along with phil and mark.
10/29	1	compile data dictionary from microsoft access using the documenter feature. convert to word doc and post to yahoo groups for documentation manager. later in the day, give final presentation with mark and phil.

Total: 33.5 Hours

## 10.0 Group Time Logs

Rane Yahya

Date	Hours	Tasks
9/29	1.5	Discussed with members for wireless application. We came up with the idea of a bar directory for DePaul campuses. The application will give a listing of bars next to each of DePaul's seven campuses and also in the Chicago city area. We also discussed our roles for the group.
9/18	2.5	started reviewing plan from previous projects, started preparing and gathering information I need to get started, reviewed and read planning information which was posted on the web.
9/21	4	Wrote up business plan, and diagram for our planning, breakdown on each member's task.
9/22	5.5	worked on time log table, planned and worked on problem statement, technical specifications, backup methods, and code maintenance.
10/01	3	Started working on the Ghent chart and using Microsoft project, meet with tariq and mojisola and went over the planning documents with mojaisola for presentation purposes, worked mojaisolo and Traiq and the slides.

Total: 16.5 Hours

## Appendix A Sample Code:

// Page: bardirectory/bar/Default.aspx  
// Description: This page displays bar information including name, address, phone, and rating.  
// Precondition: query string variable 'barID' is passed to this page.

```
<% @ Register TagPrefix="mobile" Namespace="System.Web.UI.MobileControls"
Assembly="System.Web.Mobile" %>
<% @ Page language="c#" Codebehind="Default.aspx.cs"
Inherits="bardirectory.bar._Default" AutoEventWireup="false" %>
<HEAD>
    <meta name="GENERATOR" content="Microsoft Visual Studio .NET 7.1">
        <meta name="CODE_LANGUAGE" content="C#">
    <meta name="vs_targetSchema" content="http://schemas.microsoft.com/Mobile/Page">
</HEAD>
<body Xmlns:mobile="http://schemas.microsoft.com/Mobile/WebForm">
    <mobile:Form id="frmBar" runat="server">
        <mobile:Label id="lblBarName" runat="server" Font-Bold="True"></mobile:Label>
        <mobile:Label id="lblBarAddress" runat="server"></mobile:Label>
        <mobile:Label id="lblBarPhone" runat="server"></mobile:Label>
        <mobile:Label id="lblUniversityCampus" runat="server"></mobile:Label>
        <mobile:Label id="lblBarRating" runat="server"></mobile:Label>
        <mobile:Label id="lblHours" runat="server"></mobile:Label>
        <mobile:Label id="lblType" runat="server"></mobile:Label>
        <mobile:Label id="lblFood" runat="server"></mobile:Label>
        <mobile:Label id="lblDescription" runat="server"></mobile:Label>
        <mobile:Command id="cmdRate" runat="server">Rate This Bar</mobile:Command>
        <mobile:Label id="lblThankYou" runat="server" Visible="False">Thank
You!</mobile:Label>
        <mobile:Link id="Link1" runat="server"
NavigateUrl="/bardirectory/Default.aspx" SoftkeyLabel="Home">Home</mobile:Link>
    </mobile:Form>
    <mobile:Form id="frmRate" runat="server">
        <mobile:Label id="lblRateBarName" runat="server" Font-
Bold="True"></mobile:Label>
    <BR>
    <mobile:SelectionList id="ddRate" runat="server">
    <Item Value="1" Text="1 = Terrible"></Item>
    <Item Value="2" Text="2 = Bad"></Item>
    <Item Value="3" Text="3 = Ok" Selected="True"></Item>
    <Item Value="4" Text="4 = Good"></Item>
    <Item Value="5" Text="5 = Excellent"></Item>
    </mobile:SelectionList>
        <mobile:Command id="cmdSubmit" runat="server">Submit</mobile:Command>
    </mobile:Form>
</body>
```

//Page : bardirectory/bar/Default.aspx.cs  
//Description: Code behind file

```
using System;
using System.Collections;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Web;
using System.Web.Mobile;
using System.Web.SessionState;
using System.Web.UI;
using System.Web.UI.MobileControls;
using System.Web.UI.WebControls;
using System.Web.UI.HtmlControls;
using System.Data.OleDb;
using pearls.library.classes;

namespace bardirectory.bar
{
    /// <summary>
    /// Summary description for _Default.
    /// </summary>
    public class _Default : System.Web.UI.MobileControls.MobilePage
    {

        protected DataHelper data = new DataHelper();
        protected System.Web.UI.MobileControls.Label lblBarName;
        protected System.Web.UI.MobileControls.Label lblBarAddress;
        protected System.Web.UI.MobileControls.Label lblBarPhone;
        protected System.Web.UI.MobileControls.Link Link1;
        protected System.Web.UI.MobileControls.Label lblDescription;
        protected System.Web.UI.MobileControls.Label lblUniversityCampus;
        protected System.Web.UI.MobileControls.Label lblBarRating;
        protected OleDbCommand cmd;
        protected System.Web.UI.MobileControls.Command cmdRate;
        protected System.Web.UI.MobileControls.Label lblRateBarName;
        protected System.Web.UI.MobileControls.SelectionList ddRate;
        protected System.Web.UI.MobileControls.Command cmdSubmit;
        protected System.Web.UI.MobileControls.Label lblHours;
        protected System.Web.UI.MobileControls.Label lblType;
        protected System.Web.UI.MobileControls.Label lblFood;
        protected System.Web.UI.MobileControls.Form frmBar;
        protected System.Web.UI.MobileControls.Form frmRate;
        protected System.Web.UI.MobileControls.Label lblThankYou;
        protected String barID = null;
```

```

protected DataTable dt;

private void Page_Load(object sender, System.EventArgs e)
{
//Make sure barID variable is set and is valid
if(Request.QueryString["barID"] == null ||
!DataHelper.IsInteger(Request.QueryString["barID"].ToString()))
this.RedirectToMobilePage("/bardirectory/Default.aspx");

//get the ID
barID = Request.QueryString["barID"].ToString();

//Create command to find the bar with the specified barID
cmd = new OleDbCommand("select * from qryBar where barID="+
DataHelper.InvalidIntToZero(barID));

//fill the data table with the matching bar
DataTable dtBar = data.getDataTable(cmd,"bar");

//only one row should be returned
if(dtBar.Rows.Count == 1)
{
//get the first row of the data table
DataRow dr = dtBar.Rows[0];

lblBarName.Text = dr["barName"].ToString();
lblRateBarName.Text = dr["barName"].ToString();

lblBarAddress.Text = dr["address"].ToString()+" "+
dr["city"].ToString()+" "+dr["state"].ToString()+" "+
dr["zip"].ToString();

lblBarPhone.Text = "Phone: "+dr["phone"].ToString();

lblUniversityCampus.Text = "Campus: "+dr["universityCampus"].ToString();

if(!dr["hours"].ToString().Equals(String.Empty))
lblHours.Text = "Hours: "+dr["hours"].ToString();
else
lblHours.Visible = false;

if(!dr["type"].ToString().Equals(String.Empty))
lblType.Text = "Bar Type: "+dr["type"].ToString();
else
lblType.Visible = false;
}
}

```

```

if(dr["isFood"].ToString().Equals("True"))
lblFood.Text = "Serves Food";
else
lblFood.Text = "No Food Served";

if(!dr["description"].ToString().Equals(String.Empty))
lblDescription.Text = dr["description"].ToString();
else
lblDescription.Text = "No Description available";

}

CalculateBarRating();

}

private void CalculateBarRating()
{
if(barID != null && DataHelper.IsInteger(barID))
{
cmd = new OleDbCommand("select avgRating from qryRating where
barID="+DataHelper.InvalidIntToZero(barID));
dt = data.getDataTable(cmd,"rating");

if(dt.Rows.Count == 1)
{
lblBarRating.Visible = true;
lblBarRating.Text = "Average Bar Rating: "+dt.Rows[0]["avgRating"].ToString();
}
else
lblBarRating.Visible = false;
}
}

#region Web Form Designer generated code
override protected void OnInit(EventArgs e)
{
//
// CODEGEN: This call is required by the ASP.NET Web Form Designer.
//
InitializeComponent();
base.OnInit(e);
}
/// <summary>
/// Required method for Designer support - do not modify
/// the contents of this method with the code editor.

```

```

/// </summary>
private void InitializeComponent()
{
    this.cmdRate.Click += new System.EventHandler(this.cmdRate_Click);
    this.cmdSubmit.Click += new System.EventHandler(this.cmdSubmit_Click);
    this.Load += new System.EventHandler(this.Page_Load);
}
#endregion
//Event triggered when user clicks to rate a bar
private void cmdRate_Click(object sender, System.EventArgs e)
{
    //Activates from to rate bar
    ActiveForm = this.frmRate;
}

//Event triggered when user submits rating
private void cmdSubmit_Click(object sender, System.EventArgs e)
{
    if(barID != null && DataHelper.IsInteger(barID))
    {
        cmd = new OleDbCommand("Insert into Ratings (barID,rating)" +
            " values (" +DataHelper.InvalidIntToZero(barID)+"," +
            DataHelper.InvalidIntToZero(ddRate.Items[ddRate.SelectedIndex].Value)+")");
        data.ExecuteNonQuery(cmd,"");

        cmdRate.Visible = false;
        lblThankYou.Visible = true;
    }

    CalculateBarRating();
    ActiveForm = this.frmBar;
}
}
}

//Page: bardirectory/search/zipCode/Default.aspx
//Description: Page that allows user to enter zipcode and search for all matching bars

```

```

<% @ Page language="c#" Codebehind="Default.aspx.cs"
Inherits="bardirectory.search.zipCode._Default" AutoEventWireup="false" %>
<% @ Register TagPrefix="mobile" Namespace="System.Web.UI.MobileControls"
Assembly="System.Web.Mobile" %>
<HEAD>
<meta name="GENERATOR" content="Microsoft Visual Studio .NET 7.1">
<meta name="CODE_LANGUAGE" content="C#">
<meta name="vs_targetSchema" content="http://schemas.microsoft.com/Mobile/Page">

```



```

</HEAD>
<body Xmlns:mobile="http://schemas.microsoft.com/Mobile/WebForm">
<mobile:Form id="frmZipcode" runat="server">
<B>Enter Zip Code</B>
<mobile:TextBox id="txtZip" runat="server"></mobile:TextBox>
<mobile:RequiredFieldValidator id="RequiredFieldValidator1" runat="server"
ControlToValidate="txtZip">Required</mobile:RequiredFieldValidator>
<mobile:RegularExpressionValidator id="RegularExpressionValidator1" runat="server"
ControlToValidate="txtZip" ValidationExpression="\d{5}(-\d{4})?">Invalid
zipcode</mobile:RegularExpressionValidator>
<mobile:Command id="cmdGo" runat="server"
SoftkeyLabel="Go">Go</mobile:Command>
</mobile:Form>
<mobile:Form id="frmSelectBar" runat="server">
<mobile:Label id="lblZip" runat="server" Font-Bold="True"></mobile:Label>
<mobile:SelectionList id="slBar" runat="server"></mobile:SelectionList>
<mobile:Command id="cmdGoBar" runat="server"
SoftkeyLabel="Go">Go</mobile:Command>
</mobile:Form>
<mobile:Form id="frmNoResults" runat="server" Font-Bold="True">
<mobile:Label id="lblNoBars" runat="server">No bars found for zip code:
</mobile:Label>
<mobile:Link id="Link2" runat="server"
NavigateUrl="/bardirectory/search/zipCode/Default.aspx">Try Again</mobile:Link>
<mobile:Link id="Link1" runat="server"
NavigateUrl="/bardirectory/Default.aspx">Home</mobile:Link>
</mobile:Form>
</body>

```

//Page: bardirectory/search/zipCode/Default.aspx.cs

//Description: Code behind file

```

using System;
using System.Collections;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Web;
using System.Web.Mobile;
using System.Web.SessionState;
using System.Web.UI;
using System.Web.UI.MobileControls;
using System.Web.UI.WebControls;
using System.Web.UI.HtmlControls;
using System.Data.OleDb;
using pearls.library.classes;

```



```

namespace bardirectory.search.zipCode
{
    /// <summary>
    /// Summary description for _Default.
    /// </summary>
    public class _Default : System.Web.UI.MobileControls.MobilePage
    {

        protected System.Web.UI.MobileControls.TextBox txtZip;
        protected System.Web.UI.MobileControls.Command cmdGo;
        protected System.Web.UI.MobileControls.Command cmdGoBar;
        protected System.Web.UI.MobileControls.Label lblNoBars;
        protected System.Web.UI.MobileControls.Link Link1;

        protected OleDbCommand cmd;
        protected System.Web.UI.MobileControls.RequiredFieldValidator
        RequiredFieldValidator1;
        protected System.Web.UI.MobileControls.Label lblZip;
        protected System.Web.UI.MobileControls.Link Link2;
        protected System.Web.UI.MobileControls.RegularExpressionValidator
        RegularExpressionValidator1;
        protected System.Web.UI.MobileControls.Form frmZipcode;
        protected System.Web.UI.MobileControls.Form frmSelectBar;
        protected System.Web.UI.MobileControls.Form frmNoResults;
        protected System.Web.UI.MobileControls.SelectionList slBar;
        protected DataHelper data = new DataHelper();

        private void Page_Load(object sender, System.EventArgs e)
        {
            // Put user code to initialize the page here
        }

        #region Web Form Designer generated code
        override protected void OnInit(EventArgs e)
        {
            //
            // CODEGEN: This call is required by the ASP.NET Web Form Designer.
            //
            InitializeComponent();
            base.OnInit(e);
        }
        /// <summary>
        /// Required method for Designer support - do not modify
        /// the contents of this method with the code editor.
        /// </summary>
        private void InitializeComponent()

```

```

{
this.cmdGo.Click += new System.EventHandler(this.cmdGo_Click);
this.cmdGoBar.Click += new System.EventHandler(this.cmdGoBar_Click);
this.Load += new System.EventHandler(this.Page_Load);

}
#endregion

//Executed when user enters a zipcode and hits enter
private void cmdGo_Click(object sender, System.EventArgs e)
{
//If validation controls do not return an error than page is valid
if(Page.IsValid)
{
//Creates a command for the select statement to return all bars with
//matching zipcode
cmd = new OleDbCommand("Select barID, barName from Bar where zip="+
DataHelper.InvalidIntToZero(txtZip.Text));

//Executes command and returns a data table containg matching bars.
DataTable dtBar = data.getDataTable(cmd,"bar");

if(dtBar.Rows.Count > 0)
{
//Bind the data table of bars to a select box
slBar.DataSource = dtBar;
slBar.DataTextField = "barName";
slBar.DataValueField = "barID";
slBar.DataBind();
lblZip.Text = dtBar.Rows.Count+" bars found for zip "+txtZip.Text;
//show form with select box
ActiveForm = this.frmSelectBar;
}
else
{
ActiveForm = this.frmNoResults;
lblNoBars.Text += txtZip.Text;
}
}
}

private void cmdGoBar_Click(object sender, System.EventArgs e)
{
this.RedirectToMobilePage("/bardirectory/bar/Default.aspx?barID="+
slBar.Items[slBar.SelectedIndex].Value);
}

```

## Appendix B: Data Dictionary

Software used: Microsoft Access  
 File name: BarDirectory.mdb  
 # of tables: 7  
 Backup file: BarDirectoryBackup.mdb

Tables:

- Campuses (stores campus information of university where particular bars are located)
- Members (stores information given by user)
- Bars (stores the profile of the bars)
- Specials (stores offerings by bars such as \$5 beer buckets on Mondays)
- Ratings (stores ratings and comments by users given to bars)
- Images (stores images used in advertising—banner ads)
- Hits (stores information on how many times a bar has been visited by a user)

Fields:

	<b>Campuses</b>	<b>Members</b>	<b>Bars</b>	<b>Specials</b>	<b>Ratings</b>	<b>Images</b>	<b>Hits</b>
<b>Primary</b>	Campus Id	User Id	Bar Id	Specials Id	Bar Id	Image Id	Bar Id
	Name	Name	Name	Bar Id	Rating	Name	Date
	City	Age	Address	Days Valid	Comments	Source	Time
	Zip Code	Sex	City	Deal Type		Size	IP Address
	University Name	Ethnicity	State			Type	
			Zip Code				
			Ph#				
			Campus Id				
			Hours				
			Type				
			Food Served				

**Properties**

DateCreated:	9/23/2003 3:03:51 PM	DefaultView:	Datasheet
GUID:	{guid {4381E281-7399-403D-B6A7-08E2F8E4CD5F}}	LastUpdated:	10/11/2003 11:27:29 AM
NameMap:	Long binary data	OrderBy:	Bar.barID
OrderByOn:	True	Orientation:	Left-to-Right
RecordCount:	128	Updatable:	True

**Columns**

Name	Type	Size
barID	Long Integer	4
AllowZeroLength: False Attributes: Fixed Size CollatingOrder: General ColumnHidden: False ColumnOrder: 1 ColumnWidth: Default DataUpdatable: False DecimalPlaces: Auto Description: Unique bar identifier DisplayControl: Text Box GUID: {guid {1E29E433-6780-4FF8-A0A6-84AAE58A1E6F}} OrdinalPosition: 0 Required: False SourceField: barID SourceTable: Bar		
BarName	Text	50
AllowZeroLength: False Attributes: Variable Length CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: 3915 DataUpdatable: False Description: Bar's Name DisplayControl: Text Box GUID: {guid {46A89249-8EFC-4A08-B9B6-0B1B0288BAE0}} IMEMode: 0 IMESentenceMode: 3 OrdinalPosition: 1 Required: False SourceField: BarName SourceTable: Bar UnicodeCompression: True		
Address	Text	50
AllowZeroLength: False Attributes: Variable Length CollatingOrder: General ColumnHidden: False ColumnOrder: Default		

	ColumnWidth:	2355		
	DataUpdatable:	False		
	Description:	Bar's Address		
	DisplayControl:	Text Box		
	GUID:	{guid {41CFD9B9-261E-485A-9060-D2E8BBF3F7B9}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	2		
	Required:	False		
	SourceField:	Address		
	SourceTable:	Bar		
	UnicodeCompression:	False		
City			Text	50
	AllowZeroLength:	False		
	Attributes:	Variable Length		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	2820		
	DataUpdatable:	False		
	Description:	City of Bar		
	DisplayControl:	Text Box		
	GUID:	{guid {A3EC56B9-CFD4-4BEB-8E06-0D75230A5A10}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	3		
	Required:	False		
	SourceField:	City		
	SourceTable:	Bar		
	UnicodeCompression:	True		
State			Text	50
	AllowZeroLength:	False		
	Attributes:	Variable Length		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	645		
	DataUpdatable:	False		
	Description:	Bar's State		
	DisplayControl:	Text Box		
	GUID:	{guid {D1428CBB-A0C8-4A7E-8BBE-3E0F090F6D6E}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	4		
	Required:	False		
	SourceField:	State		
	SourceTable:	Bar		
	UnicodeCompression:	True		
Zip			Long Integer	4
	AllowZeroLength:	False		
	Attributes:	Fixed Size		
	CollatingOrder:	General		
	ColumnHidden:	False		

	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	DecimalPlaces:	Auto	
	Description:	Zip code	
	DisplayControl:	Text Box	
	GUID:	{guid {95F06CAB-41F2-4979-B305-7EDA5AD50121}}	
	OrdinalPosition:	5	
	Required:	False	
	SourceField:	Zip	
	SourceTable:	Bar	
Phone			Decimal 16
	AllowZeroLength:	False	
	Attributes:	Variable Length	
	CollatingOrder:	18	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	DecimalPlaces:	Auto	
	Description:	Bar's Phone Number	
	DisplayControl:	Text Box	
	GUID:	{guid {20D1E91E-B132-4022-870B-A4BD1626FB36}}	
	OrdinalPosition:	6	
	Required:	False	
	SourceField:	Phone	
	SourceTable:	Bar	
campusID			Long Integer 4
	AllowZeroLength:	False	
	Attributes:	Fixed Size	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	DecimalPlaces:	Auto	
	Description:	Campus bar is near	
	DisplayControl:	Text Box	
	GUID:	{guid {24EE38ED-0216-488A-999D-9B18F1BCD16A}}	
	OrdinalPosition:	7	
	Required:	False	
	SourceField:	campusID	
	SourceTable:	Bar	
hours			Text 100
	AllowZeroLength:	False	
	Attributes:	Variable Length	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	Description:	Bars hours	
	DisplayControl:	Text Box	



	GUID:	{guid {34504A93-E416-42C6-ACA5-546D22D0EA57}}	
	IMEMode:	0	
	IMESentenceMode:	3	
	OrdinalPosition:	8	
	Required:	False	
	SourceField:	hours	
	SourceTable:	Bar	
	UnicodeCompression:	True	
type			50
	AllowZeroLength:	False	
	Attributes:	Variable Length	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	Description:	Bar Style	
	DisplayControl:	Text Box	
	GUID:	{guid {C11FE3C3-886F-48C1-BF45-F4F4B84D2058}}	
	IMEMode:	0	
	IMESentenceMode:	3	
	OrdinalPosition:	9	
	Required:	False	
	SourceField:	type	
	SourceTable:	Bar	
	UnicodeCompression:	True	
isFood			1
	AllowZeroLength:	False	
	Attributes:	Fixed Size	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	Default	
	DataUpdatable:	False	
	Description:	Does bar serve food	
	DisplayControl:	106	
	Format:	Yes/No	
	GUID:	{guid {8877E167-F140-4D70-BD1D-D8DB4237FCDC}}	
	OrdinalPosition:	10	
	Required:	False	
	SourceField:	isFood	
	SourceTable:	Bar	

**Relationships**

**BarHits**

	<b>Bar</b>			<b>Hits</b>
	barID	1	BarId	
Attributes:			Enforced	
RelationshipType:			One-To-Many	

**BarImages**

	<b>Bar</b>			<b>Images</b>
	barID	1	BarID	
Attributes:			Enforced	
RelationshipType:			One-To-Many	

**BarRatings**

	<b>Bar</b>			<b>Ratings</b>
	barID	1	BarId	
Attributes:			Enforced	
RelationshipType:			One-To-Many	

**BarSpecials**

	<b>Bar</b>			<b>Specials</b>
	barID	1	BarId	
Attributes:			Enforced	
RelationshipType:			One-To-Many	

**CampusBar**

	<b>Campus</b>			<b>Bar</b>
	campusID	1	campusID	
Attributes:			Enforced	
RelationshipType:			One-To-Many	

**Table Indexes**

Name	Number of Fields
BarcampusID	1



	Clustered:	False
	DistinctCount:	13
	Foreign:	False
	IgnoreNulls:	False
	Name:	BarcampusID
	Primary:	False
	Required:	False
	Unique:	False
	Fields:	
	campusID	Ascending
CampusBar		1
	Clustered:	False
	DistinctCount:	13
	Foreign:	True
	IgnoreNulls:	False
	Name:	CampusBar
	Primary:	False
	Required:	False
	Unique:	False
	Fields:	
	campusID	Ascending
PrimaryKey		1
	Clustered:	False
	DistinctCount:	161
	Foreign:	False
	IgnoreNulls:	False
	Name:	PrimaryKey
	Primary:	True
	Required:	True
	Unique:	True
	Fields:	
	barID	Ascending

**User Permissions**

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
-------	--

**Group Permissions**

Admins	
Users	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data



**Properties**

DateCreated:	9/23/2003 2:37:47 PM	DefaultView:	Datasheet
GUID:	{guid {D97C89C4-9C2F-4CD0-8857-504AB66341EC}}	LastUpdated:	10/11/2003 11:26:58 AM
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	14
Updatable:	True		

**Columns**

Name	Type	Size
campusID	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	1	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
Description:	Unique Campus Identifier	
DisplayControl:	Text Box	
GUID:	{guid {A8D5AD5A-6E36-4018-BA96-0D0CF3DCDC5F}}	
OrdinalPosition:	0	
Required:	False	
SourceField:	campusID	
SourceTable:	Campus	
CampusName	Text	50
AllowZeroLength:	False	
Attributes:	Variable Length	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	2430	
DataUpdatable:	False	
Description:	Name of Campus	
DisplayControl:	Text Box	
GUID:	{guid {A1BDD7B2-7051-4EC1-A86F-400DEA25E777}}	
IMEMode:	0	
IMESentenceMode:	3	
OrdinalPosition:	1	
Required:	False	
SourceField:	CampusName	
SourceTable:	Campus	
UnicodeCompression:	True	
City	Text	50
AllowZeroLength:	False	
Attributes:	Variable Length	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	

	ColumnWidth:	1620	
	DataUpdatable:	False	
	Description:	Campus location	
	DisplayControl:	Text Box	
	GUID:	{guid {885D774C-E0A5-47F0-961E-FDAD5C3177B5}}	
	IMEMode:	0	
	IMESentenceMode:	3	
	OrdinalPosition:	2	
	Required:	False	
	SourceField:	City	
	SourceTable:	Campus	
	UnicodeCompression:	True	
Zip			Long Integer 4
	AllowZeroLength:	False	
	Attributes:	Fixed Size	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	705	
	DataUpdatable:	False	
	DecimalPlaces:	Auto	
	Description:	Zip code of campus	
	DisplayControl:	Text Box	
	GUID:	{guid {D87CC129-2503-459F-9CC0-6EB6B8329719}}	
	OrdinalPosition:	3	
	Required:	False	
	SourceField:	Zip	
	SourceTable:	Campus	
UniversityName			Text 50
	AllowZeroLength:	True	
	Attributes:	Variable Length	
	CollatingOrder:	General	
	ColumnHidden:	False	
	ColumnOrder:	Default	
	ColumnWidth:	3675	
	DataUpdatable:	False	
	Description:	Name of University	
	DisplayControl:	Text Box	
	GUID:	{guid {B65829FA-4BEF-41FC-BA11-B1BF862EB35A}}	
	IMEMode:	0	
	IMESentenceMode:	3	
	OrdinalPosition:	4	
	Required:	False	
	SourceField:	UniversityName	
	SourceTable:	Campus	
	UnicodeCompression:	True	

**Relationships**

**CampusBar**

	<b>Campus</b>		<b>Bar</b>
	campusID	1	campusID
Attributes:			Enforced
RelationshipType:			One-To-Many

**CampusMember**

	<b>Campus</b>		<b>Member</b>
	campusID	1	campusID
Attributes:			Enforced
RelationshipType:			One-To-Many

**Table Indexes**

Name	Number of Fields
PrimaryKey	1
Clustered:	False
DistinctCount:	23
Foreign:	False
IgnoreNulls:	False
Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
campusID	Ascending

**User Permissions**

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
-------	--

**Group Permissions**

Admins	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
Users	

**Properties**

DateCreated:	9/29/2003 3:24:27 PM	DefaultView:	Datasheet
GUID:	{guid {D58805F2-6DE4-4944-87BF-3DD49CE6EB21}}	LastUpdated:	
10/15/2003 6:13:53 PM			
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	0
Updatable:	True		

**Columns**

Name	Type	Size
Hit#	Long Integer	4
AllowZeroLength: False Attributes: Fixed Size, Auto-Increment CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: Default DataUpdatable: False GUID: {guid {547FA869-03C9-47DC-9CC2-B497852F5B4D}} OrdinalPosition: 0 Required: False SourceField: Hit# SourceTable: Hits		
BarId	Long Integer	4
AllowZeroLength: False Attributes: Fixed Size CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: Default DataUpdatable: False DecimalPlaces: Auto Description: Bar Id number DisplayControl: Text Box GUID: {guid {9E81479A-473D-45A3-832C-26DEE5A06A10}} OrdinalPosition: 1 Required: False SourceField: BarId SourceTable: Hits		
Date	Date/Time	8
AllowZeroLength: False Attributes: Fixed Size CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: Default DataUpdatable: False Description: Date the site was accessed GUID: {guid {D84ABC0D-39F4-4D4A-A52F-0C85523AF486}} IMEMode: 0		



	IMESentenceMode:	3		
	OrdinalPosition:	2		
	Required:	False		
	SourceField:	Date		
	SourceTable:	Hits		
Time			Date/Time	8
	AllowZeroLength:	False		
	Attributes:	Fixed Size		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	Default		
	DataUpdatable:	False		
	Description:	Time the site was accessed		
	GUID:	{guid {E4C5C300-C164-49D5-A5E6-C80D43924BDC}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	3		
	Required:	False		
	SourceField:	Time		
	SourceTable:	Hits		
IPaddress			Long Integer	4
	AllowZeroLength:	False		
	Attributes:	Fixed Size		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	Default		
	DataUpdatable:	False		
	DecimalPlaces:	Auto		
	Description:	The IP Address of the user		
	DisplayControl:	Text Box		
	GUID:	{guid {09EA173F-7461-4EDF-8FFD-7E95904D3043}}		
	OrdinalPosition:	4		
	Required:	False		
	SourceField:	IPaddress		
	SourceTable:	Hits		

**Relationships**

**BarHits**

	<b>Bar</b>		<b>Hits</b>
	barID	1	BarId
Attributes:	Enforced		
RelationshipType:	One-To-Many		

**Table Indexes**

Name	Number of Fields
------	------------------





BarHits	1
Clustered:	False
DistinctCount:	0
Foreign:	True
IgnoreNulls:	False
Name:	BarHits
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
BarId	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	BarId
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
PrimaryKey	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
Hit#	Ascending

**User Permissions**

admin Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data

**Group Permissions**

Admins  
 Users Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data



**Properties**

DateCreated:	9/29/2003 3:22:42 PM	DefaultView:	Datasheet
GUID:	{guid {F35B05A3-2CCD-4613-933C-856FB9BC9020}}	LastUpdated:	10/15/2003 6:13:57 PM
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	0
Updatable:	True		

**Columns**

Name	Type	Size
ImageId	Long Integer	4
AllowZeroLength: False Attributes: Fixed Size CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: Default DataUpdatable: False DecimalPlaces: Auto Description: The Id number given to each image DisplayControl: Text Box GUID: {guid {9D494CF8-7E42-48BB-8214-9AD3E4F107EA}} OrdinalPosition: 0 Required: False SourceField: ImageId SourceTable: Images		
Name	Text	50
AllowZeroLength: True Attributes: Variable Length CollatingOrder: General ColumnHidden: False ColumnOrder: Default ColumnWidth: Default DataUpdatable: False Description: Name of the image DisplayControl: Text Box GUID: {guid {3BF10E12-50EA-449D-B8EA-3C8FA53BD498}} IMEMode: 0 IMESentenceMode: 3 OrdinalPosition: 1 Required: False SourceField: Name SourceTable: Images UnicodeCompression: True		
Source	Text	50
AllowZeroLength: True Attributes: Variable Length CollatingOrder: General ColumnHidden: False ColumnOrder: Default		

	ColumnWidth:	Default		
	DataUpdatable:	False		
	Description:	The file where the image is		
	DisplayControl:	Text Box		
	GUID:	{guid {2012A001-07BC-4954-A7A2-DF01BD6E416C}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	2		
	Required:	False		
	SourceField:	Source		
	SourceTable:	Images		
	UnicodeCompression:	True		
Size			Long Integer	4
	AllowZeroLength:	False		
	Attributes:	Fixed Size		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	Default		
	DataUpdatable:	False		
	DecimalPlaces:	Auto		
	Description:	Soze of the image file		
	DisplayControl:	Text Box		
	GUID:	{guid {07007155-8BC5-4BDD-939D-0155357FAE8C}}		
	OrdinalPosition:	3		
	Required:	False		
	SourceField:	Size		
	SourceTable:	Images		
Type			Text	50
	AllowZeroLength:	True		
	Attributes:	Variable Length		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	Default		
	DataUpdatable:	False		
	Description:	Type of image file		
	DisplayControl:	Text Box		
	GUID:	{guid {E10F60C3-2191-4B81-964A-B40BF2971CBF}}		
	IMEMode:	0		
	IMESentenceMode:	3		
	OrdinalPosition:	4		
	Required:	False		
	SourceField:	Type		
	SourceTable:	Images		
	UnicodeCompression:	True		
BarID			Long Integer	4
	AllowZeroLength:	False		
	Attributes:	Fixed Size		
	CollatingOrder:	General		
	ColumnHidden:	False		
	ColumnOrder:	Default		
	ColumnWidth:	Default		

DataUpdatable: False  
 DecimalPlaces: Auto  
 DisplayControl: Text Box  
 GUID: {guid {53683BD8-155F-4B7D-9EE3-229661ACCA5A}}  
 OrdinalPosition: 5  
 Required: False  
 SourceField: BarID  
 SourceTable: Images

**Relationships**

**BarImages**

	<b>Bar</b>		<b>Images</b>
	barID	1	BarID
Attributes:	Enforced		
RelationshipType:	One-To-Many		

**Table Indexes**

Name	Number of Fields
BarID	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	BarID
Primary:	False
Required:	False
Unique:	False
Fields:	
BarID	Ascending
BarImages	1
Clustered:	False
DistinctCount:	0
Foreign:	True
IgnoreNulls:	False
Name:	BarImages
Primary:	False
Required:	False
Unique:	False
Fields:	
BarID	Ascending
ImageId	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	ImageId
Primary:	False

Required:	False
Unique:	False
Fields:	
ImageId	Ascending
PrimaryKey	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
ImageId	Ascending

#### User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
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#### Group Permissions

Admins	
Users	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data

**Properties**

DateCreated:	9/28/2003 11:21:24 AM	DefaultView:	Datasheet
GUID:	{guid {1B20AA63-A675-4BB8-A663-	LastUpdated:	10/15/2003 6:14:00 PM
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	13
Updatable:	True		

**Columns**

Name	Type	Size
memberID	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size, Auto-Increment	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
GUID:	{guid {3075655B-E912-4E6F-AC56-B61CD6F6B026}}	
OrdinalPosition:	0	
Required:	False	
SourceField:	memberID	
SourceTable:	Member	
memberEmail	Text	50
AllowZeroLength:	False	
Attributes:	Variable Length	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DisplayControl:	Text Box	
GUID:	{guid {6FE4492E-A81C-4CDD-81DD-55A2F4CE5608}}	
IMEMode:	0	
IMESentenceMode:	3	
OrdinalPosition:	1	
Required:	True	
SourceField:	memberEmail	
SourceTable:	Member	
UnicodeCompression:	True	
zip	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
DisplayControl:	Text Box	

GUID: OrdinalPosition: Required: SourceField: SourceTable:	{guid {5F6A4FEC-1A5D-44CF-BF23-5B9B6B313B52}} 2 False zip Member		
campusID AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: DecimalPlaces: DisplayControl: GUID: OrdinalPosition: Required: SourceField: SourceTable:	False Fixed Size General False Default Default False Auto Text Box {guid {D42D9AEF-6DB8-4F30-940F-435746422526}} 3 False campusID Member	Long Integer	4
memberPassword AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: DisplayControl: GUID: IMEMode: IMESentenceMode: OrdinalPosition: Required: SourceField: SourceTable: UnicodeCompression:	True Variable Length General False Default Default False Text Box {guid {3E081A8B-0B89-4B1D-99F6-B674923B7488}} 0 3 4 False memberPassword Member True	Text	50
age AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: DecimalPlaces: DisplayControl: GUID: OrdinalPosition: Required: SourceField: SourceTable:	False Fixed Size General False Default Default False Auto Text Box {guid {CBB8FE45-4568-4632-BF7F-0FD21DD750E1}} 5 False age Member	Integer	2

gender		Text	50
AllowZeroLength:	True		
Attributes:	Variable Length		
CollatingOrder:	General		
ColumnHidden:	False		
ColumnOrder:	Default		
ColumnWidth:	Default		
DataUpdatable:	False		
DisplayControl:	Text Box		
GUID:	{guid {8537BA38-A214-4AB6-AC0F-CBEB592D26E3}}		
IMEMode:	0		
IMESentenceMode:	3		
OrdinalPosition:	6		
Required:	False		
SourceField:	gender		
SourceTable:	Member		
UnicodeCompression:	True		

**Relationships**

**CampusMember**

	<b>Campus</b>		<b>Member</b>
	campusID	1	campusID
Attributes:	Enforced		
RelationshipType:	One-To-Many		

**Table Indexes**

Name	Number of Fields
campusID	1
Clustered:	False
DistinctCount:	5
Foreign:	False
IgnoreNulls:	False
Name:	campusID
Primary:	False
Required:	False
Unique:	False
Fields:	
campusID	Ascending
CampusMember	1
Clustered:	False
DistinctCount:	5
Foreign:	True
IgnoreNulls:	False
Name:	CampusMember
Primary:	False
Required:	False
Unique:	False



Fields:	
campusID	Ascending
memberEmail	1
Clustered:	False
DistinctCount:	13
Foreign:	False
IgnoreNulls:	False
Name:	memberEmail
Primary:	False
Required:	False
Unique:	True
Fields:	
memberEmail	Ascending
memberID	1
Clustered:	False
DistinctCount:	14
Foreign:	False
IgnoreNulls:	False
Name:	memberID
Primary:	False
Required:	False
Unique:	False
Fields:	
memberID	Ascending
PrimaryKey	1
Clustered:	False
DistinctCount:	14
Foreign:	False
IgnoreNulls:	False
Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
memberID	Ascending

**User Permissions**

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
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**Group Permissions**

Admins	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
Users	

**Properties**

DateCreated:	9/29/2003 3:20:21 PM	DefaultView:	Datasheet
GUID:	{guid {737ED0F9-4A0C-42FE-AD2C-	LastUpdated:	10/11/2003 11:27:13 AM
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	0
Updatable:	True		

**Columns**

Name	Type	Size
Rating#	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size, Auto-Increment	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
GUID:	{guid {6BDFE0BE-2923-4955-9623-D633E8B157DD}}	
OrdinalPosition:	0	
Required:	False	
SourceField:	Rating#	
SourceTable:	Ratings	
BarId	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
Description:	Bar Id number	
DisplayControl:	Text Box	
GUID:	{guid {C15C3E63-153D-487A-A69D-EDF6A02AF9E7}}	
OrdinalPosition:	1	
Required:	False	
SourceField:	BarId	
SourceTable:	Ratings	
Rating	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
Description:	The rating number given to the bar by users	
DisplayControl:	Text Box	

GUID: OrdinalPosition: Required: SourceField: SourceTable:	{guid {5B609DBF-5419-443E-AAFD-DE1D4B69EF90}} 2 False Rating Ratings		
Comments		Text	50
AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: Description: DisplayControl: GUID: IMEMode: IMESentenceMode: OrdinalPosition: Required: SourceField: SourceTable: UnicodeCompression:	True Variable Length General False Default Default False Comments by the users about the bar Text Box {guid {5D6CC085-97BD-4AB5-9276-FE30017B3351}} 0 3 3 False Comments Ratings True		
Date		Date/Time	8
AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: GUID: IMEMode: IMESentenceMode: OrdinalPosition: Required: SourceField: SourceTable:	False Fixed Size General False Default Default False {guid {4B9C4D28-B11F-4D03-B9A7-290615463F3E}} 0 3 4 False Date Ratings		
UserName		Text	50
AllowZeroLength: Attributes: CollatingOrder: ColumnHidden: ColumnOrder: ColumnWidth: DataUpdatable: DisplayControl: IMEMode: IMESentenceMode: OrdinalPosition: Required: SourceField: SourceTable:	True Variable Length General False Default Default False Text Box 0 3 5 False UserName Ratings		

UnicodeCompression: True

**Relationships**

**BarRatings**

	<b>Bar</b>	1	<b>Ratings</b>
	barID		BarId
Attributes:			Enforced
RelationshipType:			One-To-Many

**Table Indexes**

Name	Number of Fields
BarId	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	BarId
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
BarRatings	1
Clustered:	False
DistinctCount:	0
Foreign:	True
IgnoreNulls:	False
Name:	BarRatings
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
PrimaryKey	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
Rating#	Ascending

**User Permissions**

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
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**Group Permissions**

Admins	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
Users	

**Properties**

DateCreated:	9/29/2003 3:17:37 PM	DefaultView:	Datasheet
GUID:	{guid {7E018ACD-F258-4894-95E8-E7236AA5EF46}}	LastUpdated:	10/15/2003 6:14:07 PM
NameMap:	Long binary data	OrderByOn:	False
Orientation:	Left-to-Right	RecordCount:	0
Updatable:	True		

**Columns**

Name	Type	Size
SpecialsId	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
Description:	Id for specials	
DisplayControl:	Text Box	
GUID:	{guid {5BA7FBF2-2379-43CB-9075-B0D48F0BDFB0}}	
OrdinalPosition:	0	
Required:	False	
SourceField:	SpecialsId	
SourceTable:	Specials	
BarId	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	
DecimalPlaces:	Auto	
Description:	Bar Id number	
DisplayControl:	Text Box	
GUID:	{guid {FFDF7BE1-E274-424B-B500-B17D7B00DAC8}}	
OrdinalPosition:	1	
Required:	False	
SourceField:	BarId	
SourceTable:	Specials	
DaysValid	Long Integer	4
AllowZeroLength:	False	
Attributes:	Fixed Size	
CollatingOrder:	General	
ColumnHidden:	False	
ColumnOrder:	Default	
ColumnWidth:	Default	
DataUpdatable:	False	

DecimalPlaces: Auto  
 Description: The number of days the ad will run for  
 DisplayControl: Text Box  
 GUID: {guid {BFF2537C-32D4-4183-98A4-0BD6EB75B9C0}}  
 OrdinalPosition: 2  
 Required: False  
 SourceField: DaysValid  
 SourceTable: Specials

DealType Text 50

AllowZeroLength: True  
 Attributes: Variable Length  
 CollatingOrder: General  
 ColumnHidden: False  
 ColumnOrder: Default  
 ColumnWidth: Default  
 DataUpdatable: False  
 Description: The ad deal bought by the bar  
 DisplayControl: Text Box  
 GUID: {guid {6A7A8D8B-9000-46BC-845D-83225579B6DF}}  
 IMEMode: 0  
 IMESentenceMode: 3  
 OrdinalPosition: 3  
 Required: False  
 SourceField: DealType  
 SourceTable: Specials  
 UnicodeCompression: True

Image ID Long Integer 4

AllowZeroLength: False  
 Attributes: Fixed Size  
 CollatingOrder: General  
 ColumnHidden: False  
 ColumnOrder: Default  
 ColumnWidth: Default  
 DataUpdatable: False  
 DecimalPlaces: Auto  
 DisplayControl: Text Box  
 GUID: {guid {C83D1DD6-A57E-493E-AB6A-835C44749B6C}}  
 OrdinalPosition: 4  
 Required: False  
 SourceField: Image ID  
 SourceTable: Specials

**Relationships**

**BarSpecials**

	<b>Bar</b>	1	<b>Specials</b>
barID			BarId
Attributes:	Enforced		
RelationshipType:	One-To-Many		



**Table Indexes**

Name	Number of Fields
BarId	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	BarId
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
BarSpecials	1
Clustered:	False
DistinctCount:	0
Foreign:	True
IgnoreNulls:	False
Name:	BarSpecials
Primary:	False
Required:	False
Unique:	False
Fields:	
BarId	Ascending
DaysValid	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	DaysValid
Primary:	False
Required:	False
Unique:	False
Fields:	
DaysValid	Ascending
Image ID	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	Image ID
Primary:	False
Required:	False
Unique:	False
Fields:	
Image ID	Ascending
PrimaryKey	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False



Name:	PrimaryKey
Primary:	True
Required:	True
Unique:	True
Fields:	
SpecialsId	Ascending
Specials Id	1
Clustered:	False
DistinctCount:	0
Foreign:	False
IgnoreNulls:	False
Name:	Specials Id
Primary:	False
Required:	False
Unique:	False
Fields:	
SpecialsId	Ascending

**User Permissions**

admin	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data
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**Group Permissions**

Admins	
Users	Delete, Read Permissions, Set Permissions, Change Owner, Read Definition, Write Definition, Read Data, Insert Data, Update Data, Delete Data