PROJECT 2

PROJECT TITLE: Restaurant Management and User UI

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CS370(10:45am – 12:00pm)
Project2 - Final Report
05/16/2019

Team members:

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Mission Statement:

To build a GUI that is used by users to search for restaurants near them, and a GUI for administrator who can easily add new restaurants and manipulate the menus by adding, removing or editing existing items for each distinct restaurant.

Milestone:

Milestone that we are trying to achieve are listed below:

1. Creating a GUI for administrator which is only accessed by a valid administrator user ID and password. Admin will use this to perform all the manipulation tasks, for ex., adding an item to a restaurant's corresponding menu, editing current items, removing them, validating them, etc.
2. Creating a GUI for everyday users which can be accessed by anyone. User will able to view restaurants, menus, business hours, location of the restaurant, details about the restaurant. User will not have the privilege to edit, delete, add any data into the GUI.
3. Make a connection with a database that will store all the data entered or removed by admin. Making sure that the normal user will always get the correct and useful data.
4. Perform quality assurance and fix bugs.
5. Admin will be responsible for the data in the database.

Architecture:

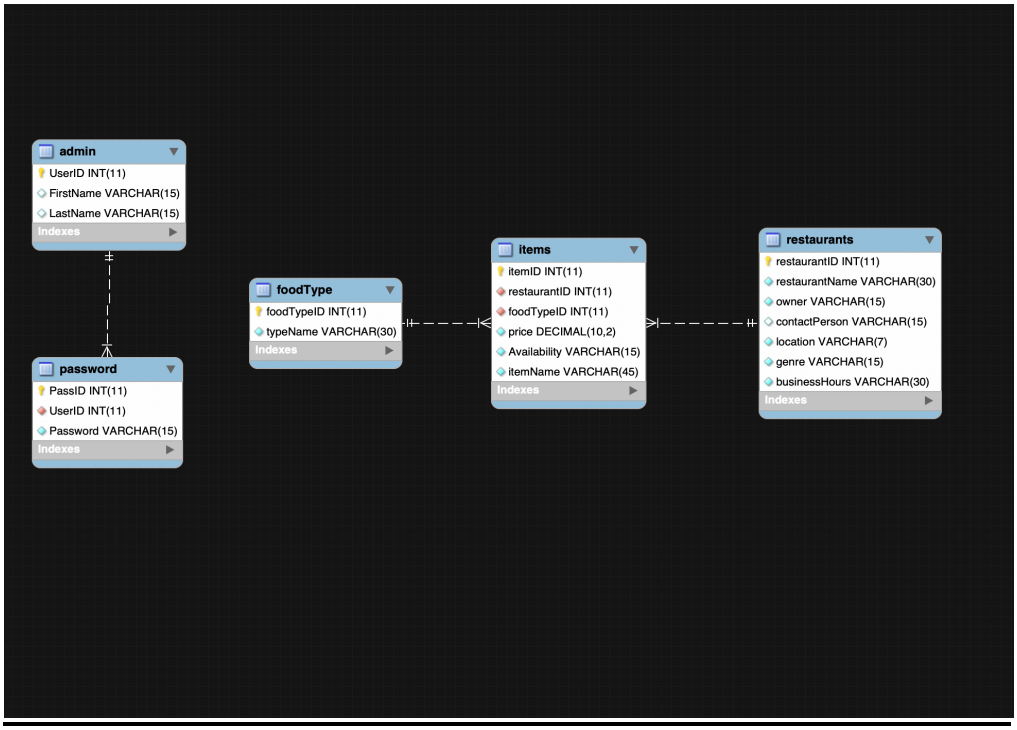
I started working on the project by first building a plan before we start coding it, which can help in future to avoid major errors like completely redesigning the software. I was able to set expectations and think of different scenarios to prevent design flaws.

I started working on the GUI in the beginning which was difficult because I have never used JavaFX before, and I had to learn to use this tool. I made a number of GUIs, for example landing page, technical support contact information, login screen that is used only by an admin, admin UI, which allows them to view, edit or remove items and add restaurants. The admin UI will allow admin to navigate easily between the different restaurants in the database. Admin can add items to particular menus and add restaurants in the admin UI. All the task will be done in admin UI, so that the admin won't get confused. After designing that I started making all other GUIs to work together and created buttons and other controls for user input.

After that I started creating the database and I decided to use MariaDB database which is hosted on the Venus server. It's a mysql database system. I connected the project using JDBC with the database, so that the database can save and store the data added by admin, which can later use to display on the normal user's GUI, which allow them to view items and restaurants as well as on the admin UI. The user GUI will also have navigation which will be easy to navigate and will provide every detail about the items or restaurants to the user. The

user GUI will be read-only, which won't allow any user to edit any data in the database except the admin.

Database design:



The database contains 5 tables. Connected to each other through the table named items. This way when admin enters an item it goes into table "items" and when admin enters restaurants it gets added into restaurants table. The database contains a foodType table which contains the menu type and has a foreign key relationship with the items table.

Bugs:

1. When I add a restaurant to the restaurant table from admin UI, it doesn't update the restaurants list unless the admin logs out and at which point the restaurant is shown in the landing page. However, on login, the admin is able to see the new restaurant in the list.

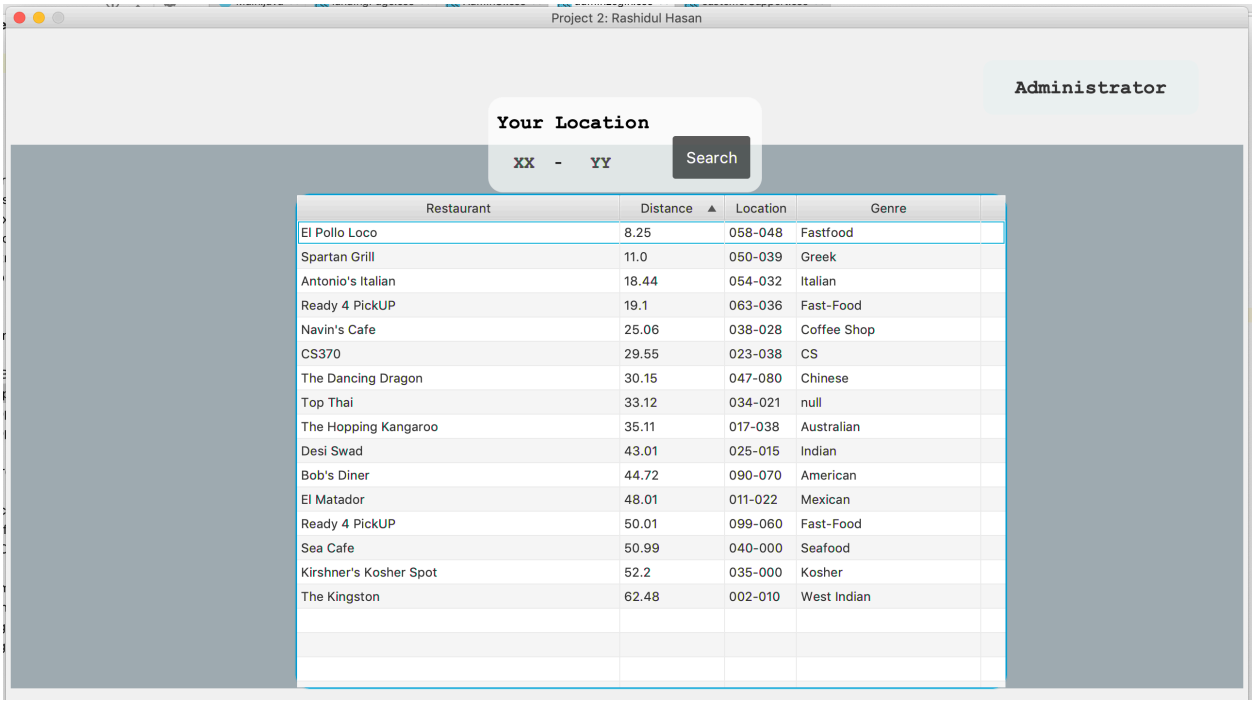
Software:

1. IntelliJ to write , debug and run codes.
2. Language: JAVA
3. GUI: created by Scene Builder on IntelliJ.
4. Database: MySQL(Venus Server)

GUI:

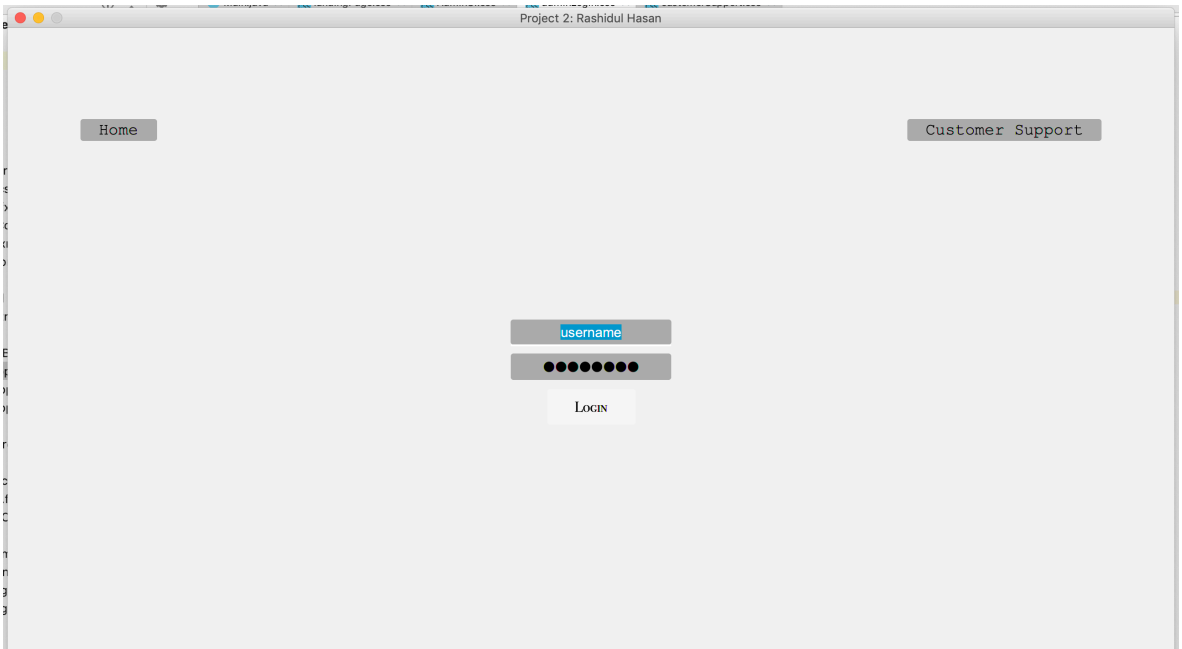
These are the lists of all the GUIs that we have designed:

1. This is the landing page which shows the list of restaurants in the database and their distance from location (X, Y) as (50, 50) as well as other relevant information about the restaurants. It also allows a user to enter their current (X, Y) location and the list will display the restaurants based on the distance from the current location in ascending order. Double clicking on any of the restaurants will take the user to the user UI for the selected restaurant and display relevant information.

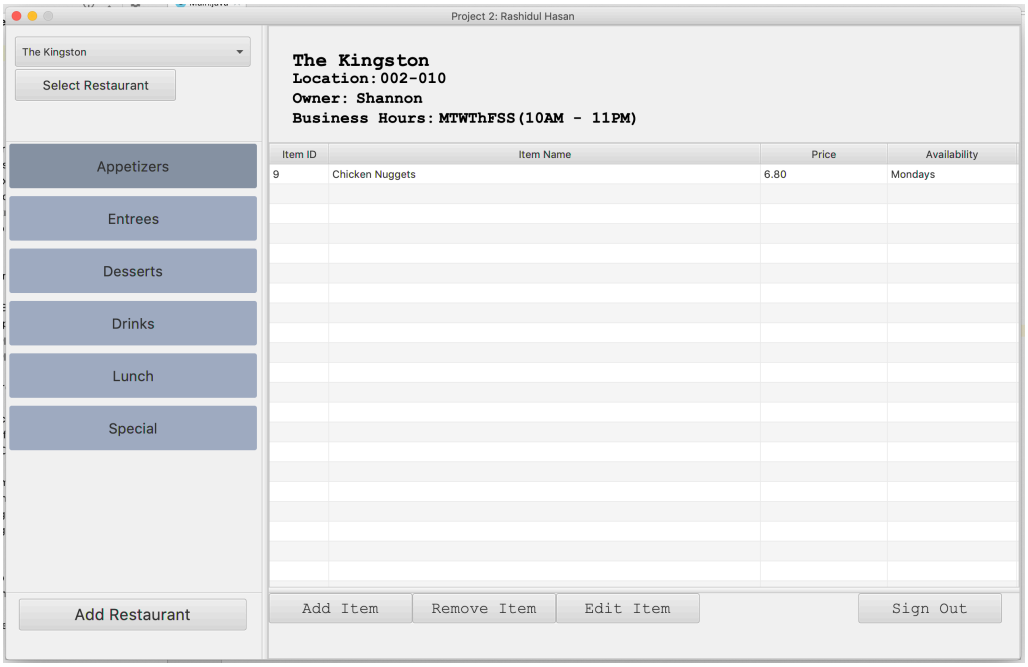


Restaurant	Distance	Location	Genre
El Pollo Loco	8.25	058-048	Fastfood
Spartan Grill	11.0	050-039	Greek
Antonio's Italian	18.44	054-032	Italian
Ready 4 PickUP	19.1	063-036	Fast-Food
Navin's Cafe	25.06	038-028	Coffee Shop
CS370	29.55	023-038	CS
The Dancing Dragon	30.15	047-080	Chinese
Top Thai	33.12	034-021	null
The Hopping Kangaroo	35.11	017-038	Australian
Desi Swad	43.01	025-015	Indian
Bob's Diner	44.72	090-070	American
El Matador	48.01	011-022	Mexican
Ready 4 PickUP	50.01	099-060	Fast-Food
Sea Cafe	50.99	040-000	Seafood
Kirshner's Kosher Spot	52.2	035-000	Kosher
The Kingston	62.48	002-010	West Indian

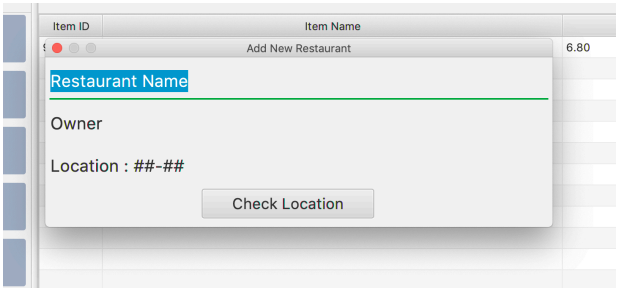
2. The page below is the login screen for the admin which facilitates the gateway to the admin UI.

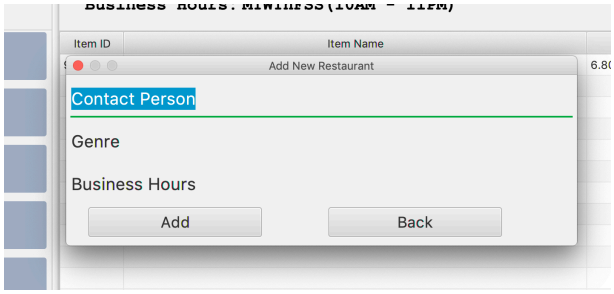


3. The GUI below is the main screen of admin, which allows manipulation of restaurant data as well definition of the same.

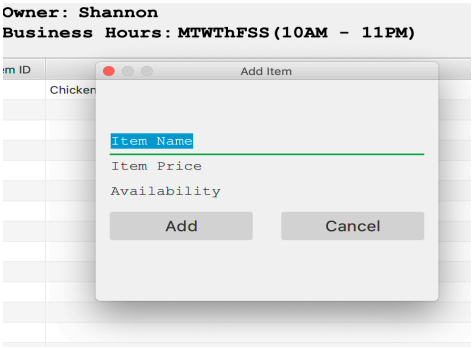


4. The following two screens are used for adding new restaurant.

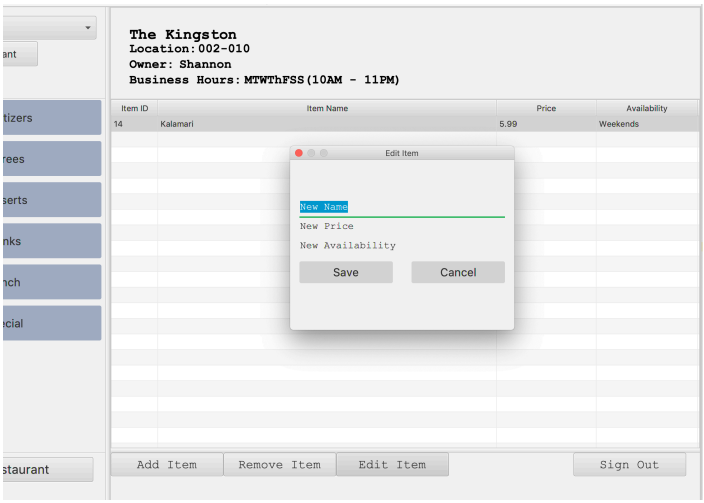




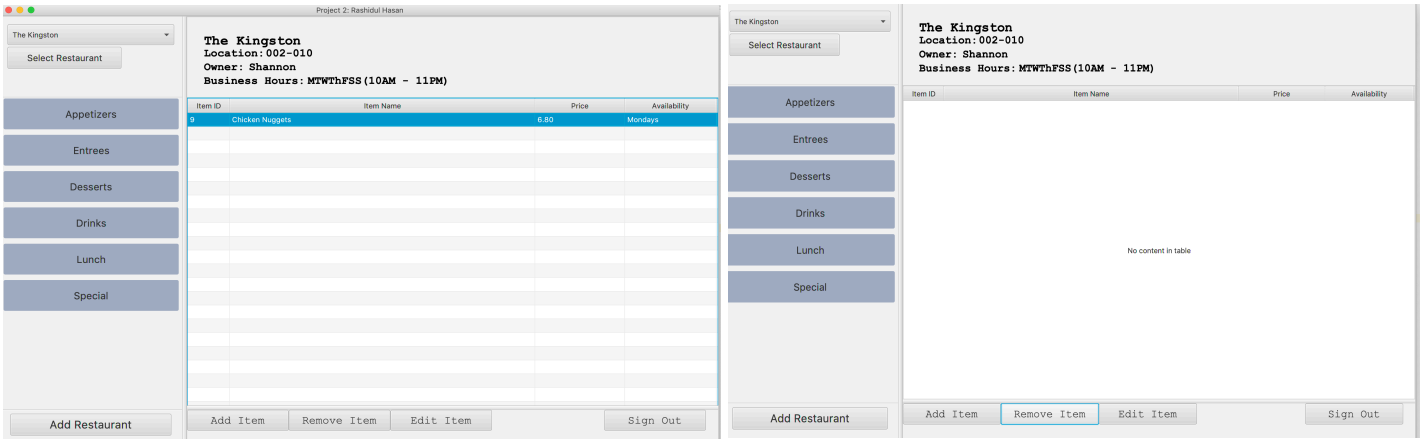
5. This screen shows the add new item alert box.



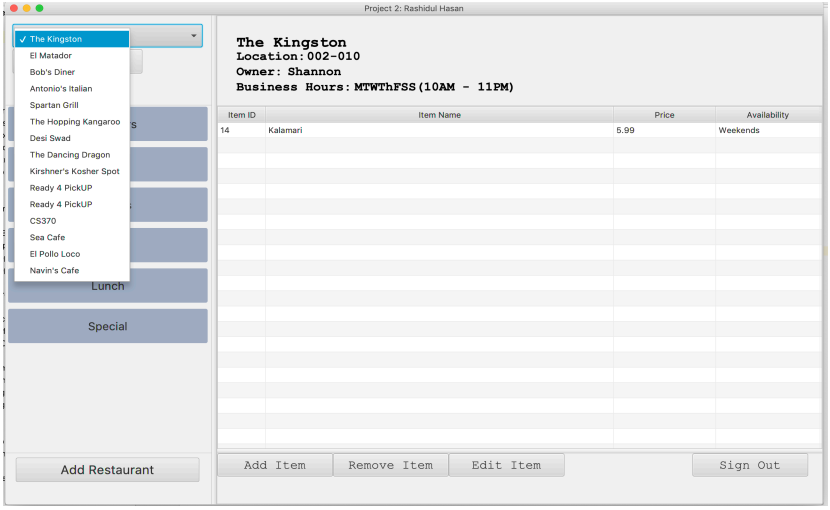
6. This is the edit item alert box.



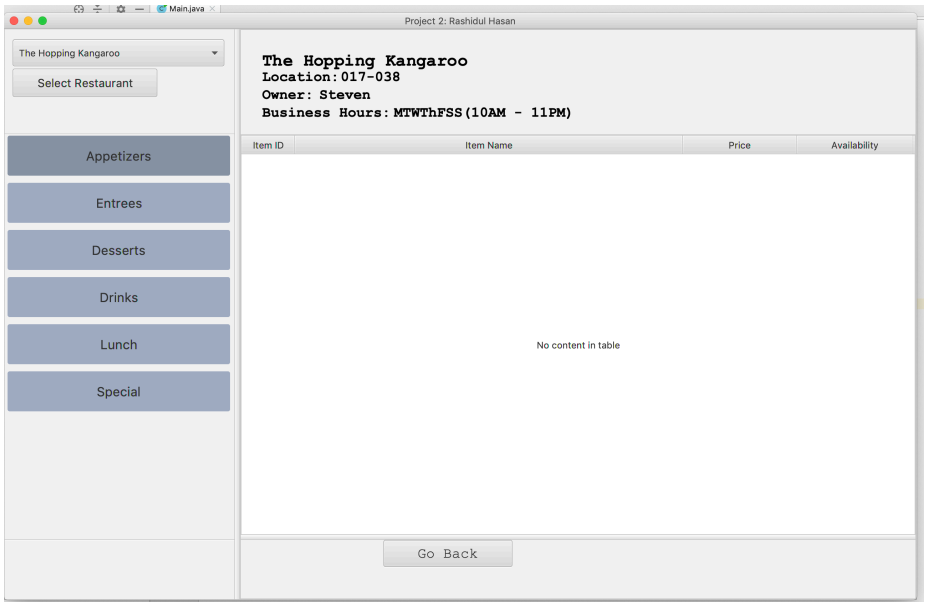
7. The following shows the effect of clicking delete for a selected item.



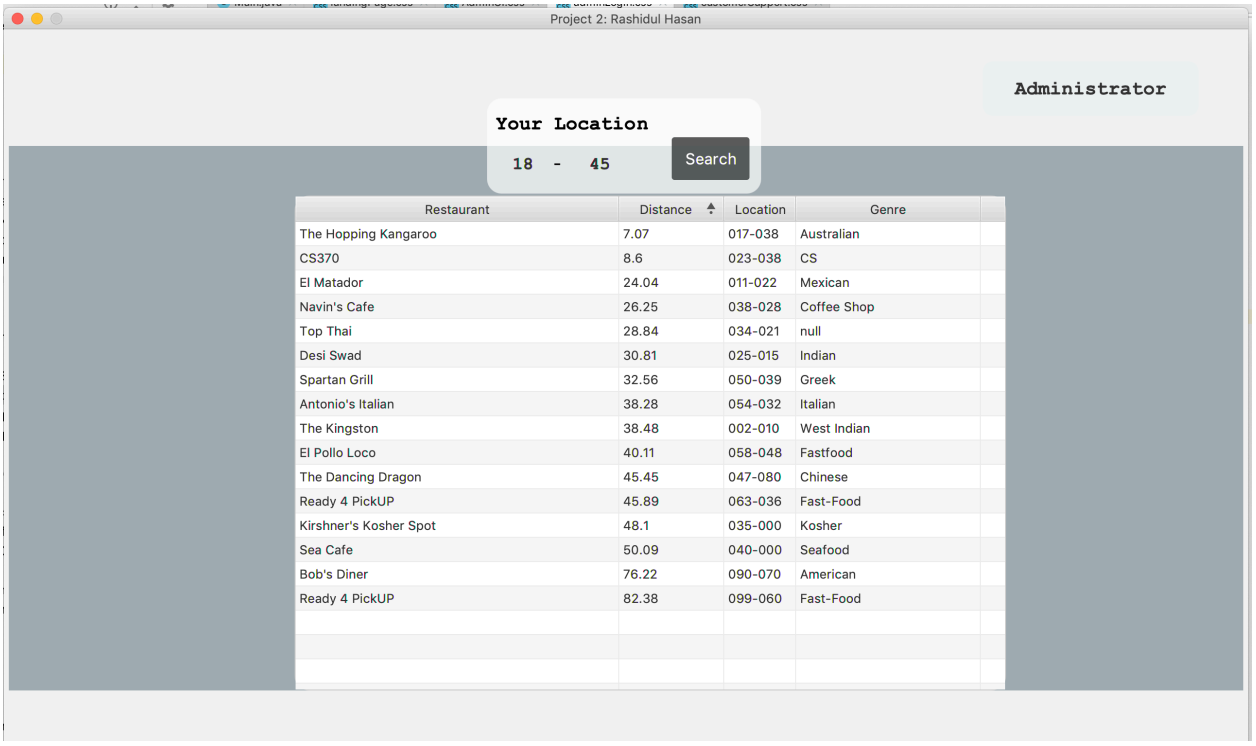
8. The following shows the effect of clicking on the dropdown menu.



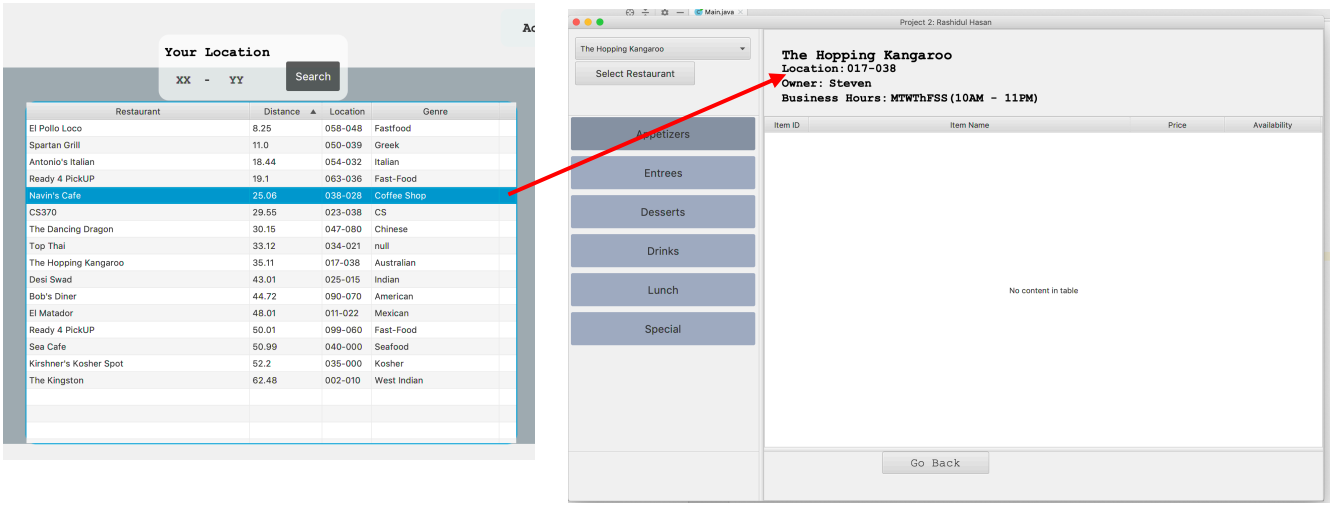
9. The following is the user UI which looks a lot like the admin without the data manipulation and definition.



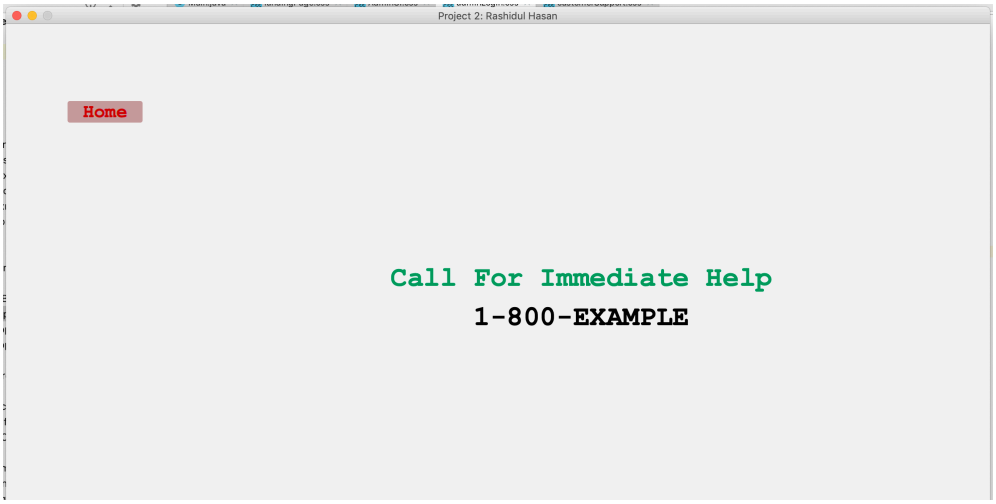
10. Custom user location and corresponding restaurant list based on distance.



11. Double clicking on a restaurant will take you to their menu.



12. The customer service contacts page when you click "Customer support" in the admin login page.



Those are all the screens for the GUI that I have designed for users and admin to get their work done easily and more comfortably. I tried to keep it as simple as possible.