CS551 Advanced Software Engineering

Challenge #1

**Estore –Grocery store Application**

**By,**

**PonnamBalakrishna (16177831)**

**Sirisha Valluri (16185041)**

**Summary:**

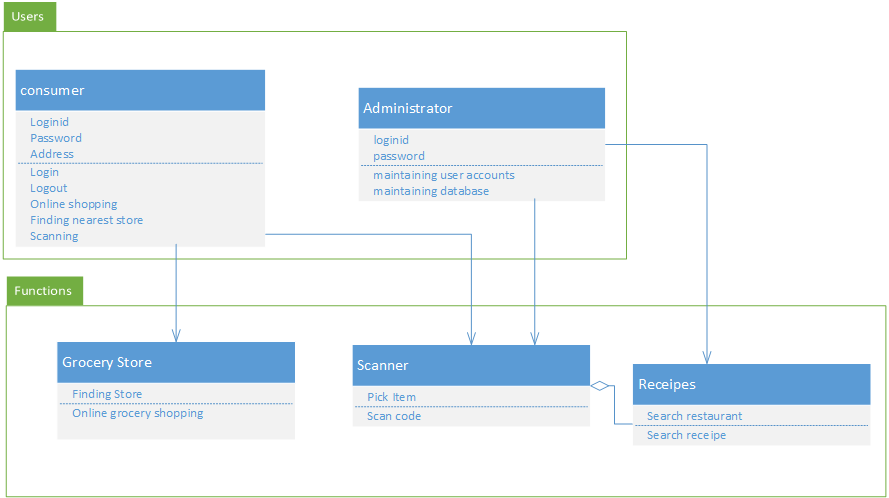
The goal of the application is to design a native android mobile app to make grocery shopping easier. User can order the items online directly in Estore application. This application can also be used to find the nearest grocery store and also to get the required items to door step. User must register online in order to select goods for checkout or even for door delivery. This service makes the consumers feel convenient for doing online grocery shopping.

**Design:**

Estore is a mobile grocery store application where user can find the nearby stores and make an online purchase. The architecture of this application includes:

Class Diagram:

In class diagram has two packages, they are users and functions. Users are of two kinds they are consumer and administrator, consumer is having the following functions they are they need to get registered for doing online shopping of grocery, for finding nearest store there is no need to logging onto the site. Administrator maintains the database.



Architecture Diagram:

In architecture diagram user will be interacting through internet to do online shopping there are many API’s used to get the required data. User can find nearest store through Google API. There will be a database which maintains all the data of the user and also about the data regarding the groceries.



**Features Implemented:**

a.)We have used different API’s like Google Maps API for Finding nearest store, Supermarket API for gathering different products based on product id and also for selecting the locations. Barcode scanner API for scanning the barcode.

Following are the APIs used:

Supermarket API:

<http://www.supermarketapi.com/>

Barcode Scanner API:

<http://www.programmableweb.com/api/barcode-scanner>

Google Map API:

https://maps.googleapis.com/maps/api/js?v=3.exp&sensor=true"

**b.) Database:**

i.) SQL Server

ii.) SQLite

**c.) Mobile User Interface:**

i.) Android

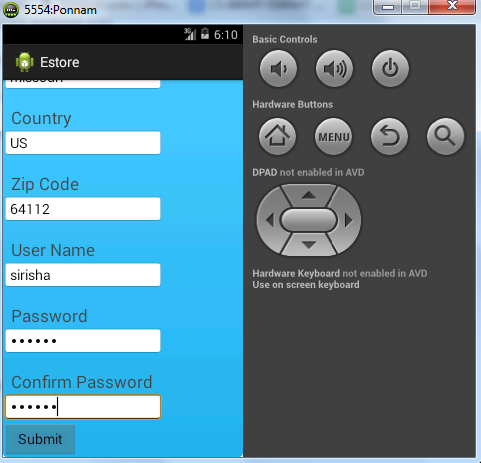
ii.) Java

iii.) Eclipse

**3) Implementation:**

Estore is an application developed for grocery store to find the nearest grocery store. To use the application the user need to first register to get the login.

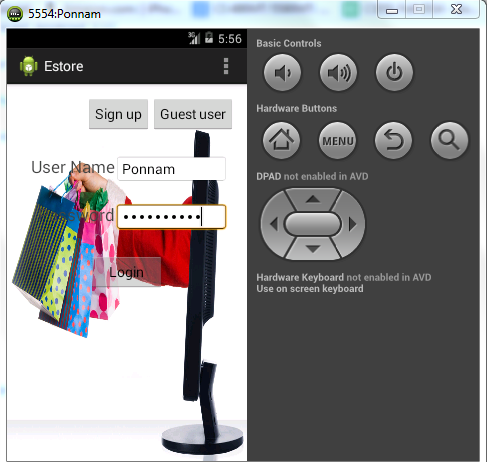
Here is the registration screen developed for the registration:



Here the all the fields are made with validation. if the any of fields are vacant, there it says the fields are vacant.

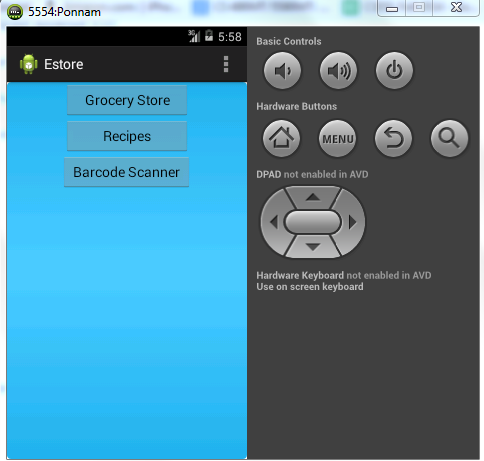
Then the user logins with his credentials.

Here is the login screen provided for logging:



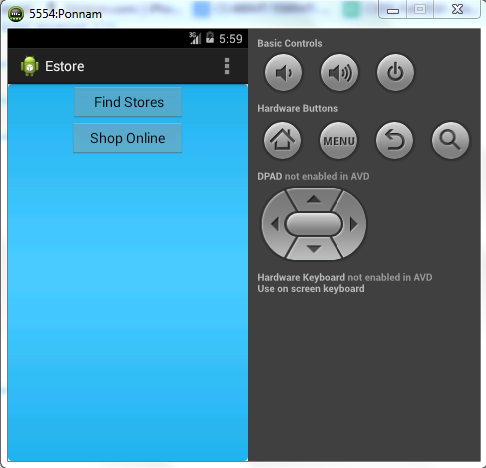
After user gets login to the app then it gets listed all the features listed for this application. Here we get display with Grocery, Recipes and the Bar code scanner.

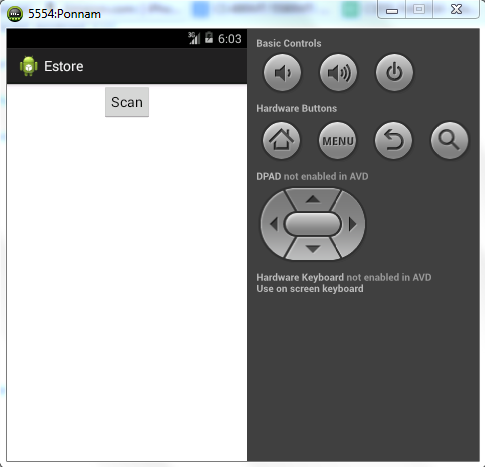
Below is the screen shot showing the list of features:



If we click the grocery store it gives the option to find the nearest grocery store and to make the online shopping. The recipe tab tracks the items required to make the recipe. The barcode scanner scans the barcode and some of the images.

Here are the screen shots for the above discussed features:

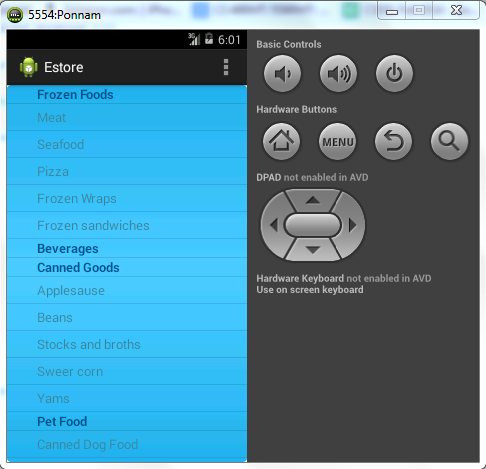




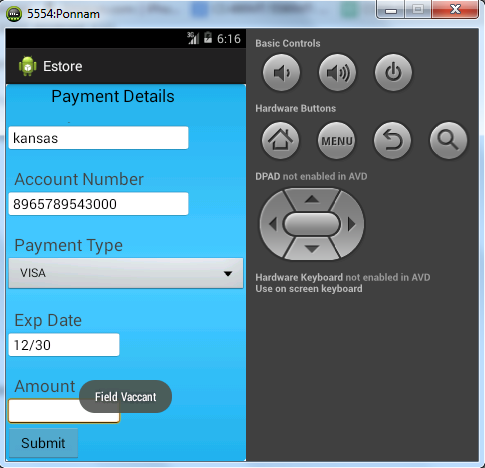
For developing the bar code scanning application we have used the “google zxing” libraries.

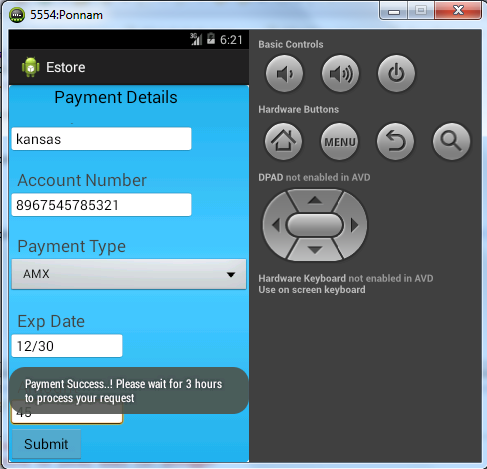
On clicking the tab of find store by using the google web services we list the nearest grocery stores. From the other tab we do online shopping where we select the grocery stores online and do the payment in online.

Here is the below screen shot



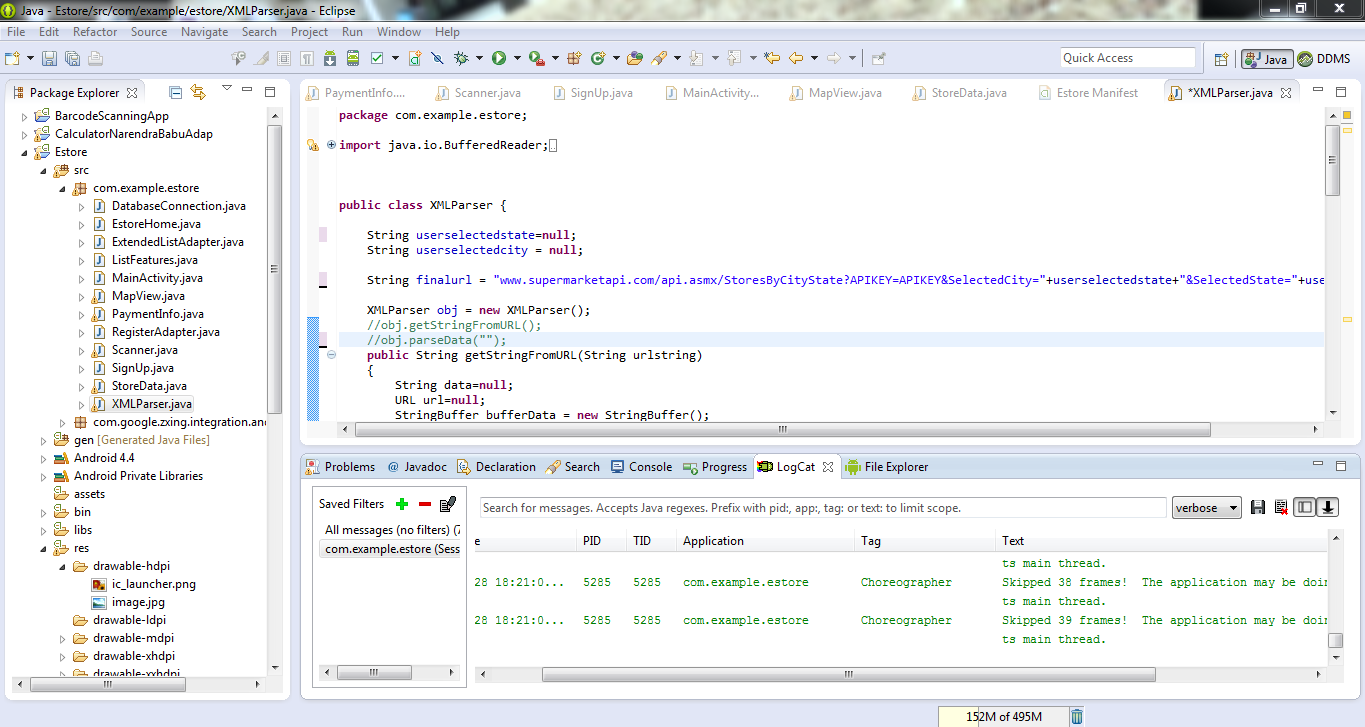
Here is the screen shot of doing the online payment and then it shows the delivery status and also do the validation.





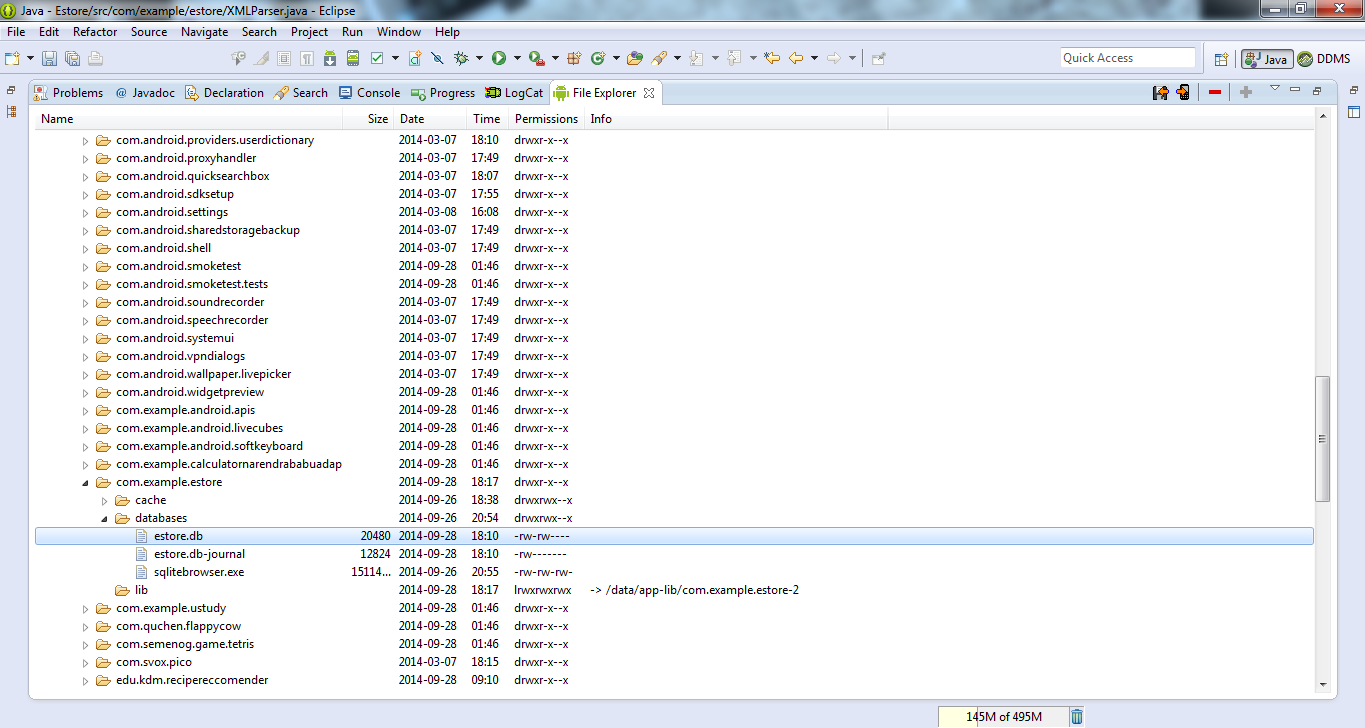
The API used is of XML data. Those Xml data is parsed by using the java program, those parsed data is used for listing the products and their locations and the prices.

Here is the screen shot of the XML parsing code:

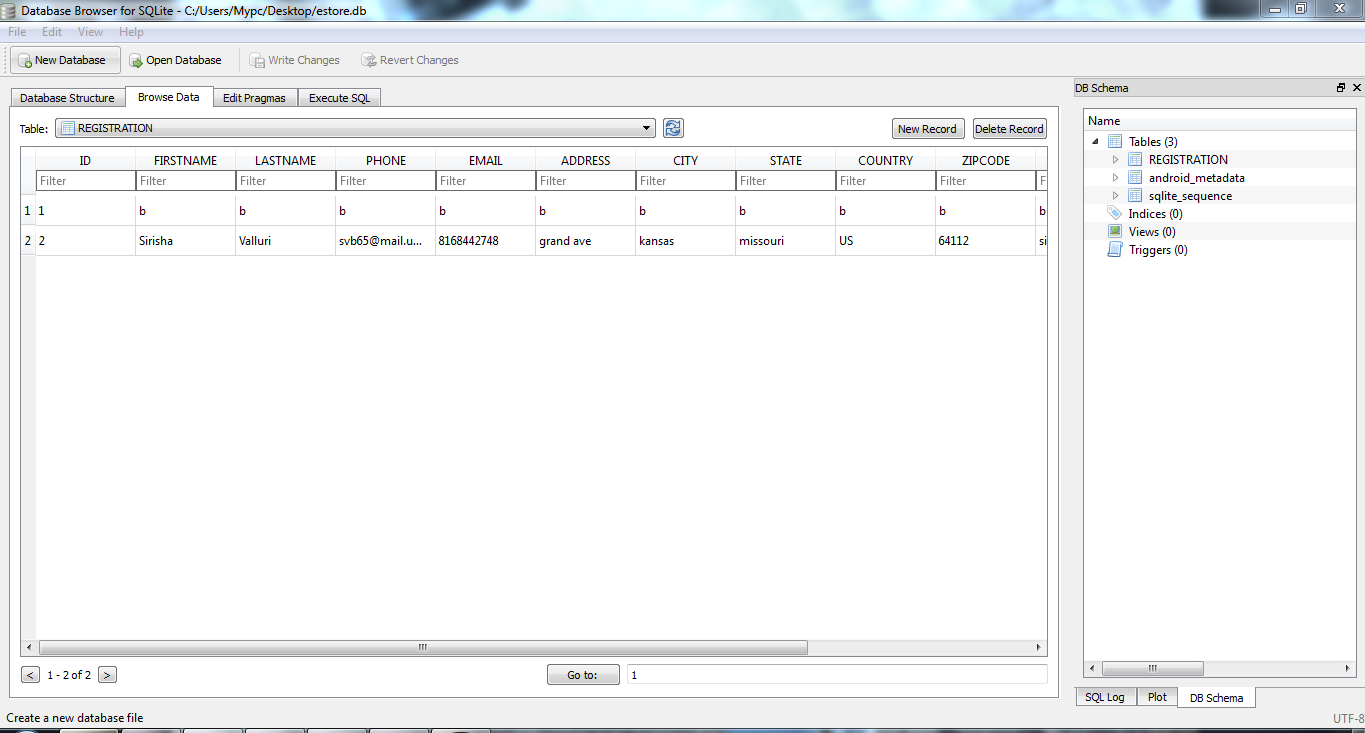


For the user profile we do maintain the registration details in the SQLite database. Those databases are saved under the file explorer 🡪 data 🡪 data🡪 and under the program. Those data in the database can be seen by using the SQLite Browser.

The screen shot of the where SQLite database is saved is



The below screen shows the SQLite browser for seeing the browsed data



**4) Web Sites and URLS:**

Services used for listing grocery items:

<http://www.SupermarketAPI.com/api.asmx/COMMERCIAL_SearchByProductName?APIKEY=APIKEY&ItemName=Parsley>

Services by the locations and city, states

<http://www.SupermarketAPI.com/api.asmx/CitiesByState?APIKEY=APIKEY&SelectedState=CA>

Get groceries

<http://www.SupermarketAPI.com/api.asmx/GetGroceries?APIKEY=APIKEY&SearchText=Apple>

Stores By Name

<http://www.SupermarketAPI.com/api.asmx/ReturnStoresByName?APIKEY=APIKEY&StoreName=Safeway>

By all US states

<http://www.SupermarketAPI.com/api.asmx/AllUSStates>

For locations services

Hhtp://www.Maps.googleapi.com

**5)GitHub URL:**

[**https://github.com/BP8G6/ASE---Challenge-1**](https://github.com/BP8G6/ASE---Challenge-1)

**6) Limitations:**

There are some of the limitations while developing the Estore Application. Those limitations are:

1. Security while doing payment gateway.
2. Payment gateway authentication.
3. User flexibility
4. Touch and feel of grocery items

**7) References:**

1) Android Developers -- <http://developer.android.com/index.html>

2) Code project – <http://codeproject.com>

3) Google – <http://google.com>

4) Supermarket – <http://www.supermarketapi.com>