Saver ‘n Saviour

I. Introduction

Saver ‘n Saviour is an application that assists user to effectively shop for all the household needs.

II. Project Proposal

Team 10: Saver ‘n Saviour
Group members: Pooja Shekhar, Dig Vijay Kumar Yarlagadda, Sushma Mitta, and Chandra Sekhar Janyavula

Project Goal and Objectives:

Overall goal:
To create an application that is capable of tracking all the household needs and gas refills at best prices.

Motivation:
Amidst the busy schedule of a student or an office goer, it is difficult to keep a track of all the household needs is not easy. There is a great need of an application keeps track of all the household needs and due bill payments at the lowest possible price without much of manual exploration.

Specific Objectives:
The primary focus of this project is

- To create a reminder application that is capable of tracking all the refill needs of household essentials like groceries, gas refills based on its usage.
- To find a store where an item (household and gas stations) is available at the cheapest possible price in the route selected.

This project basically aims to assist the user to do tasks like buy groceries, purchasing gas for cars etc., on your route to the destination. This app uses measurements like the quantity of items bought at a time and how many days will each quantity of that items lasts to remind the user before a day or two. Once that reminder is dealt with the user chooses to tick it off the list. This takes the selected GPS route and the household items we need as input and uses Supermarket and Gas stations API to help us with its proximity and cheapest price.

Specific features:
Initially the common household needs of the user are logged into the user’s account. Then on, timely reminders are sent to the user about all the grocery needs. The user can skip, postpone or update an alert at any time. The user can also create a group to share reminder list so that each person of the group gets the alert. The user gets to compare the prices of the required items on different shopping sites of stores present on his route so that he can save time and money by choosing best possible option.
The salient features of the application are:

- To do lists for household needs
- Notifications for grocery refill
- System wide search for groceries, restaurants and gas stations
- Track of shopping history
- Sharing shopping lists with family members and friends
- Complete information about grocery stores nearby, including store timings, distance to store etc.,
- Voice reminders
- Optimization of travel routes for best possible prices or least amount of time required.

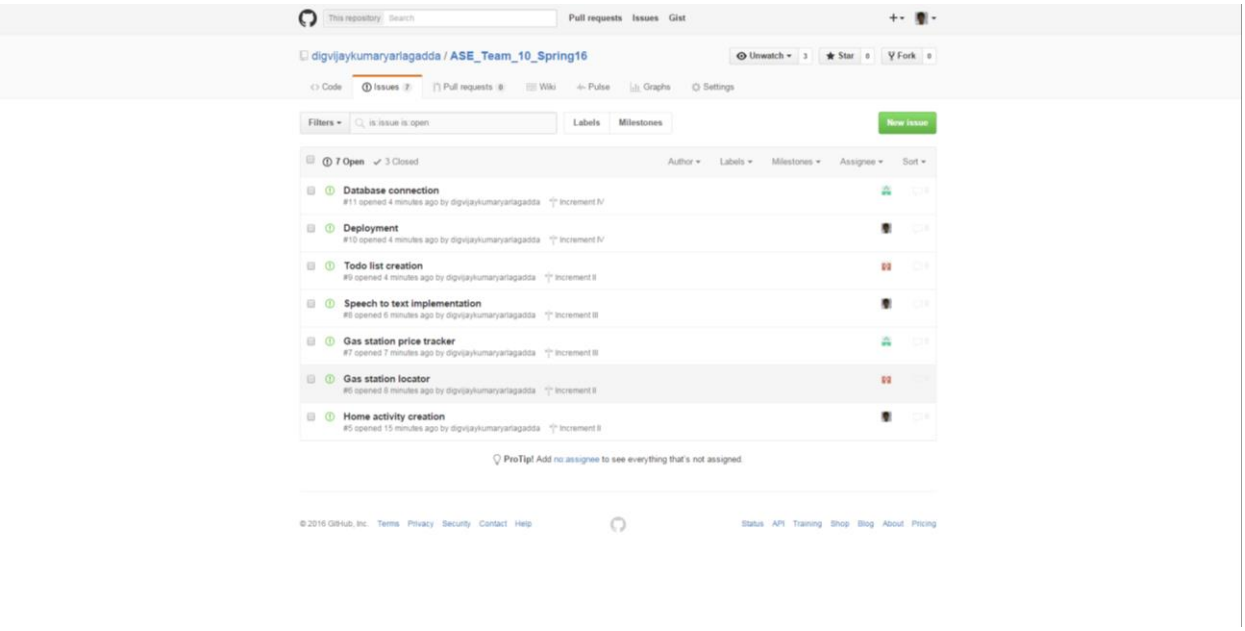
Significance:

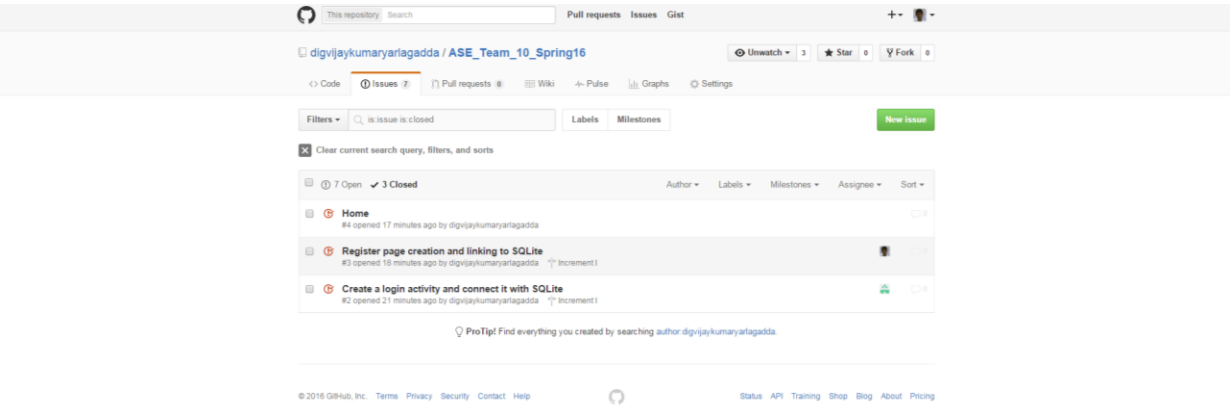
With workload increasing at our workplace we desperately need reminder applications for routine tasks like buying groceries, vegetables and gas for your cars. Unfortunately, none of the available apps integrate our necessities and savings. We don't have an app which tracks all the daily essentials with an easy to use interface. We plan to focus on saving time and money with an easy to use interface for the user. For example, an office goer is reminded of the deficits in the household before he starts for home. He can search for those household items at the chosen route to his home at the cheapest possible price. We use Maps and Supermarket and Gas Station APIs to assist in the process. In short this application is a planner which proves to be a saver and a saviour.

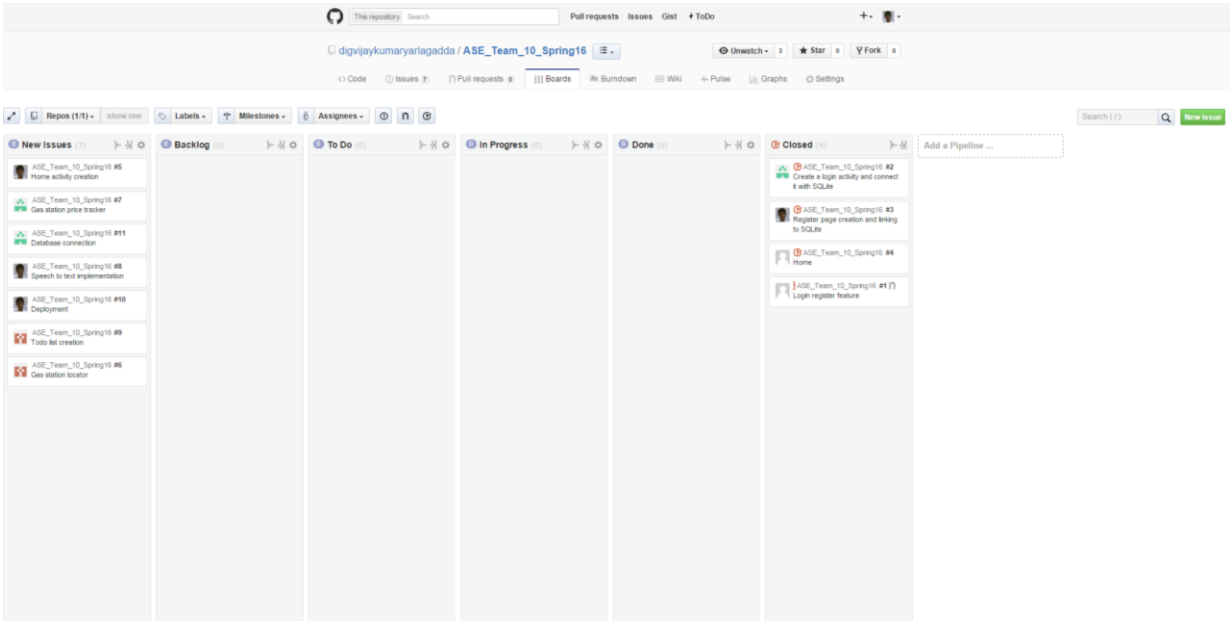
III. Project Plan

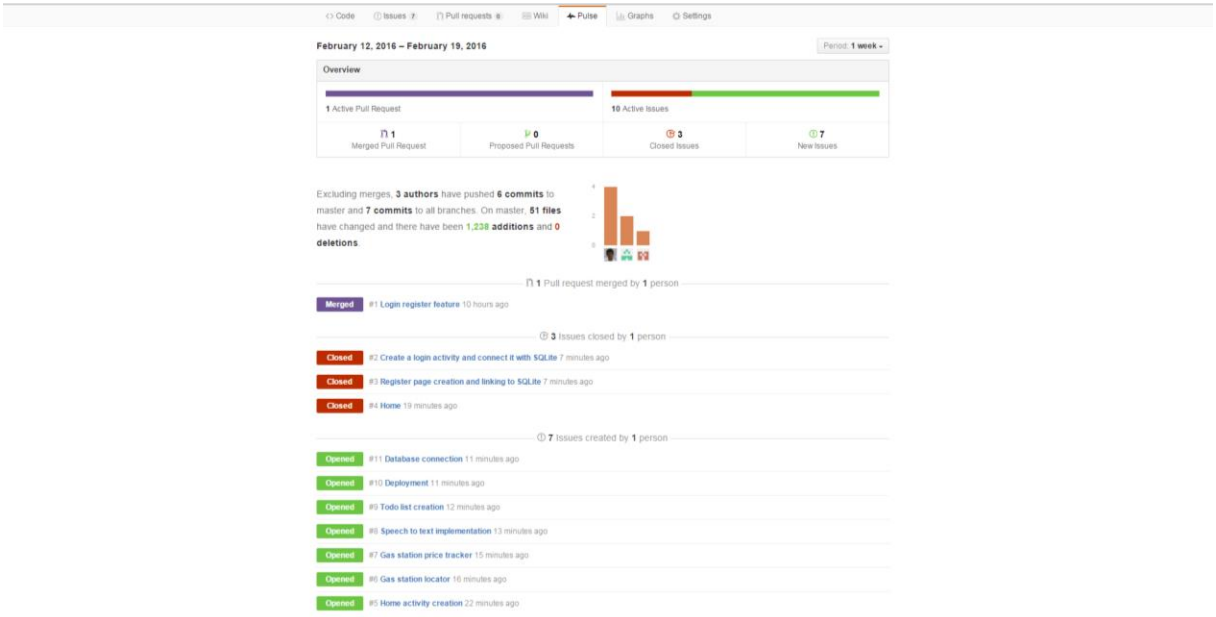
Schedule:
The project in divided into equal parts such as design, implementation, testing and deployment. The below screenshots shows the schedule of the project and contributions of each team members.

Issues:

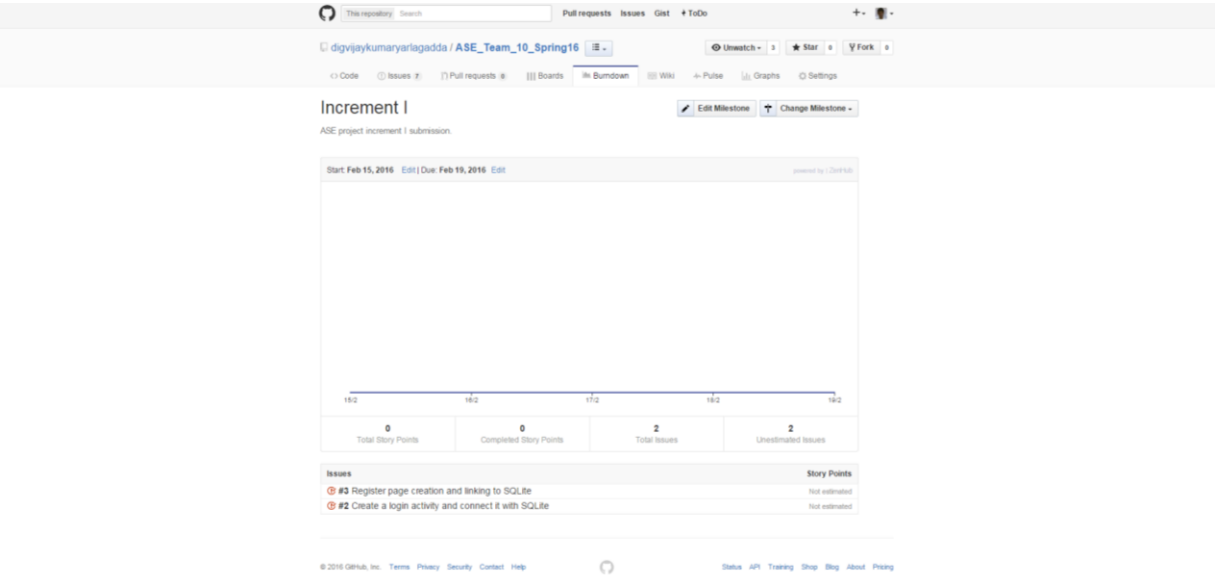




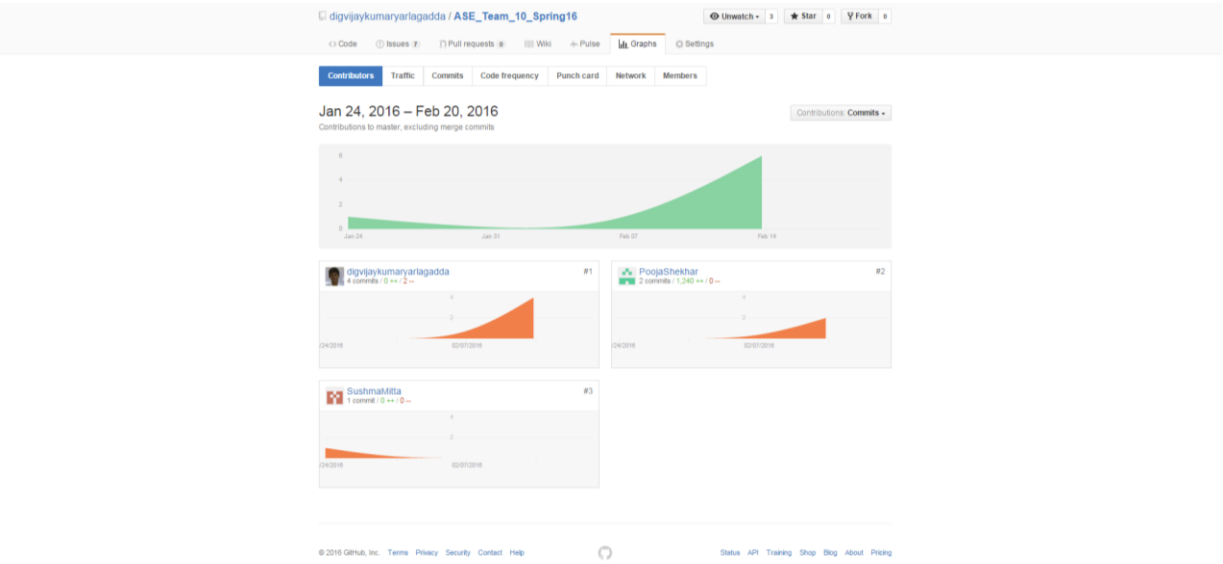

This repository Search
Pull requests
Issues
Gist
+ ToDo
digvijaykumaryarlagadda / ASE_Team_10_Spring16
Unwatch 3
Star 0
Fork 0
Code
Issues 7
Pull requests 0
Boards
Burndown
Wiki
Pulse
Graphs
Settings
Repos (1/1)
show one
Labels
Milestones
Assignees
Search (/)
New issue
New Issues (7)
ASE_Team_10_Spring16 #5 Home activity creation
ASE_Team_10_Spring16 #7 Gas station price tracker
ASE_Team_10_Spring16 #11 Database connection
ASE_Team_10_Spring16 #8 Speech to text implementation
ASE_Team_10_Spring16 #10 Deployment
ASE_Team_10_Spring16 #9 Todo list creation
ASE_Team_10_Spring16 #6 Gas station locator
Backlog (0)
To Do (0)
In Progress (0)
Done (0)
Closed (4)
ASE_Team_10_Spring16 #2 Create a login activity and connect it with SQLite
ASE_Team_10_Spring16 #3 Register page creation and linking to SQLite
ASE_Team_10_Spring16 #4 Home
ASE_Team_10_Spring16 #1 Login register feature
Add a Pipeline ...


Code
Issues 7
Pull requests 0
Wiki
Pulse
Graphs
Settings
February 12, 2016 – February 19, 2016
Period: 1 week
Overview
1 Active Pull Request
10 Active Issues
1 Merged Pull Request
0 Proposed Pull Requests
3 Closed Issues
7 New Issues
Excluding merges, 3 authors have pushed 6 commits to master and 7 commits to all branches. On master, 51 files have changed and there have been 1,238 additions and 0 deletions.
1 Pull request merged by 1 person
Merged #1 Login register feature 10 hours ago
3 Issues closed by 1 person
Closed #2 Create a login activity and connect it with SQLite 7 minutes ago
Closed #3 Register page creation and linking to SQLite 7 minutes ago
Closed #4 Home 19 minutes ago
7 Issues created by 1 person
Opened #11 Database connection 11 minutes ago
Opened #10 Deployment 11 minutes ago
Opened #9 Todo list creation 12 minutes ago
Opened #8 Speech to text implementation 13 minutes ago
Opened #7 Gas station price tracker 15 minutes ago
Opened #6 Gas station locator 16 minutes ago
Opened #5 Home activity creation 22 minutes ago

Burndown chart:



Team members contributions:



IV. First increment report

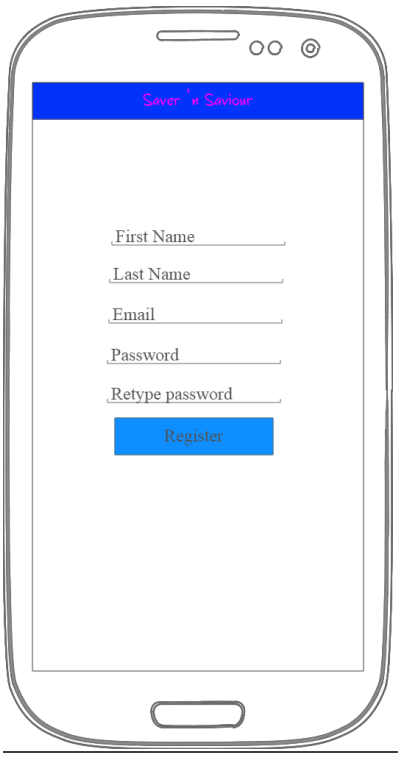
Design:
The architecture of the project has been planned in the first increment. The login and register page has been created in Android Studio and the application is linked to a SQLite server.

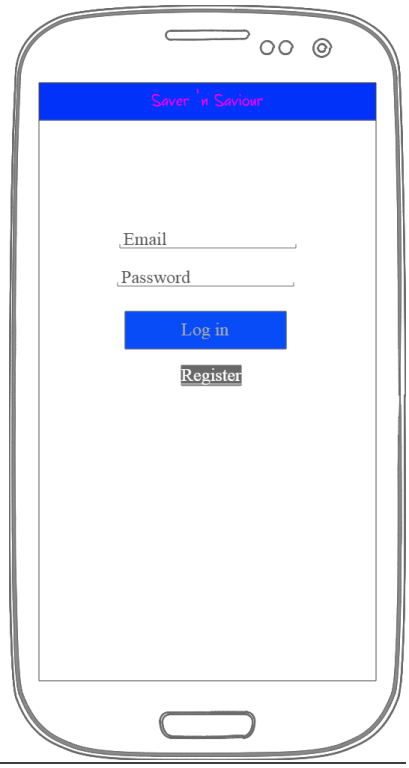
Existing services:
[1]. https://github.com/SimplicityApks/ReminderDatePicker
[2]. https://github.com/wdkapps/FillUp

APIs:
The APIs which will be used in this project are

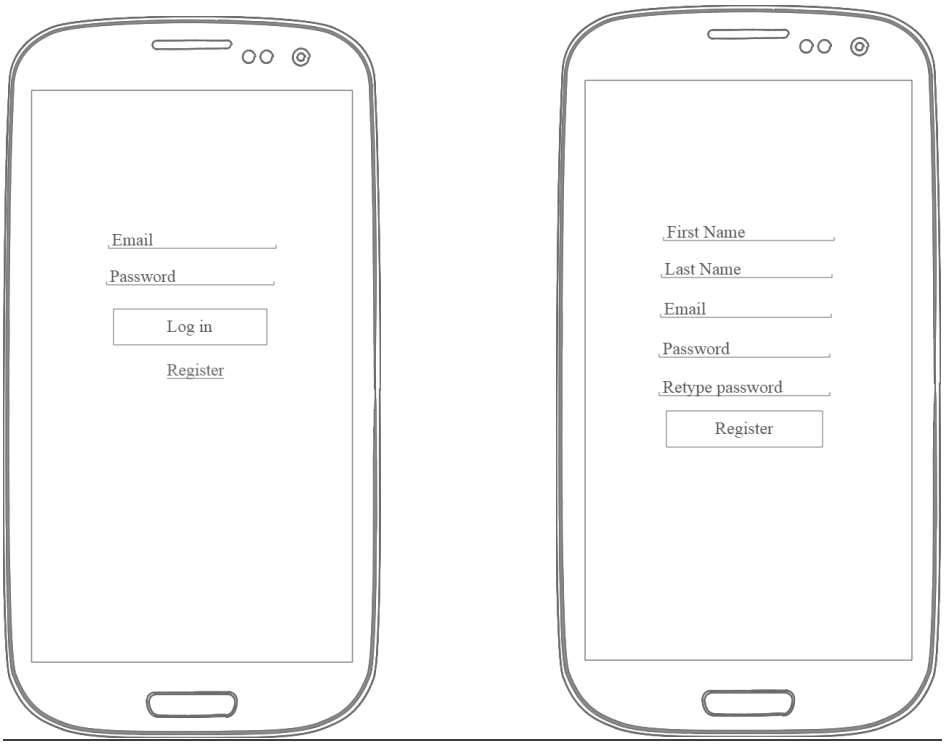
- Google Places API for obtaining nearby restaurants for a selected route
- Yelp API for restaurant reviews
- Yellow API to obtain gas prices
- Web speech API for speech to text conversion

Mockups:



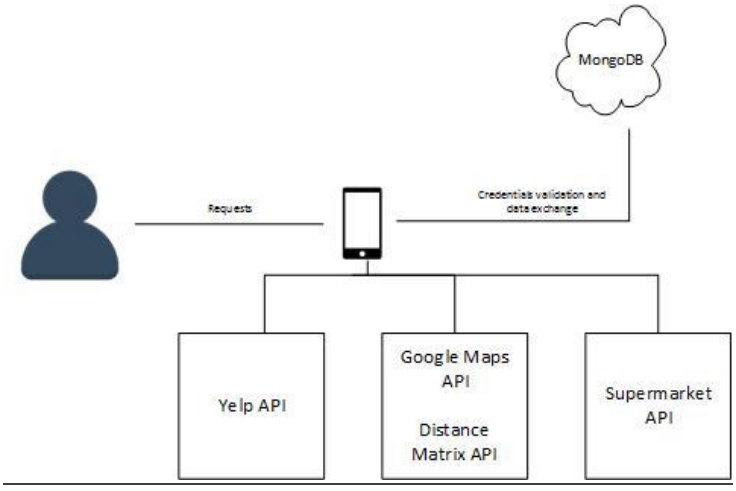


Wireframes:

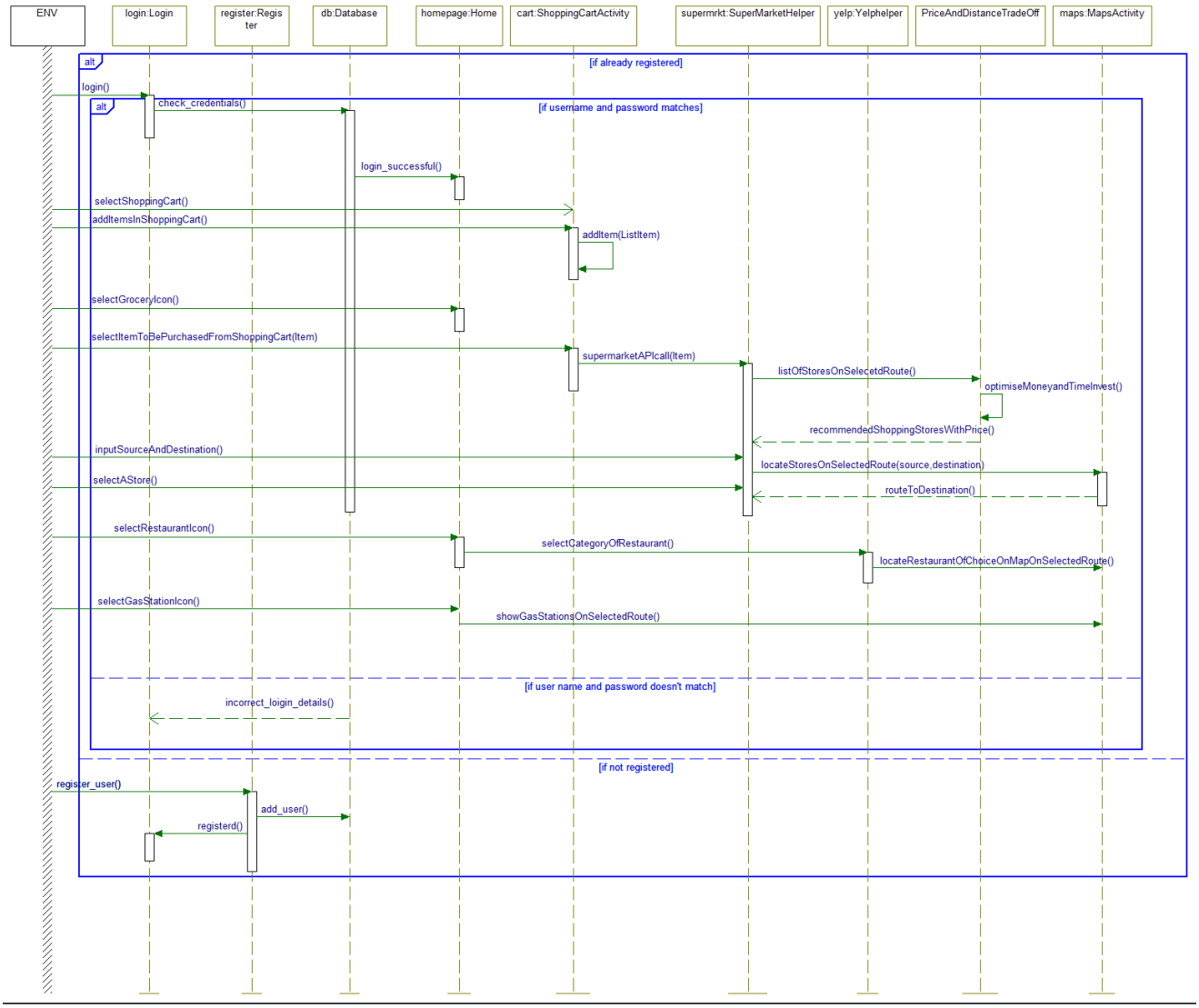


Architecture diagram:

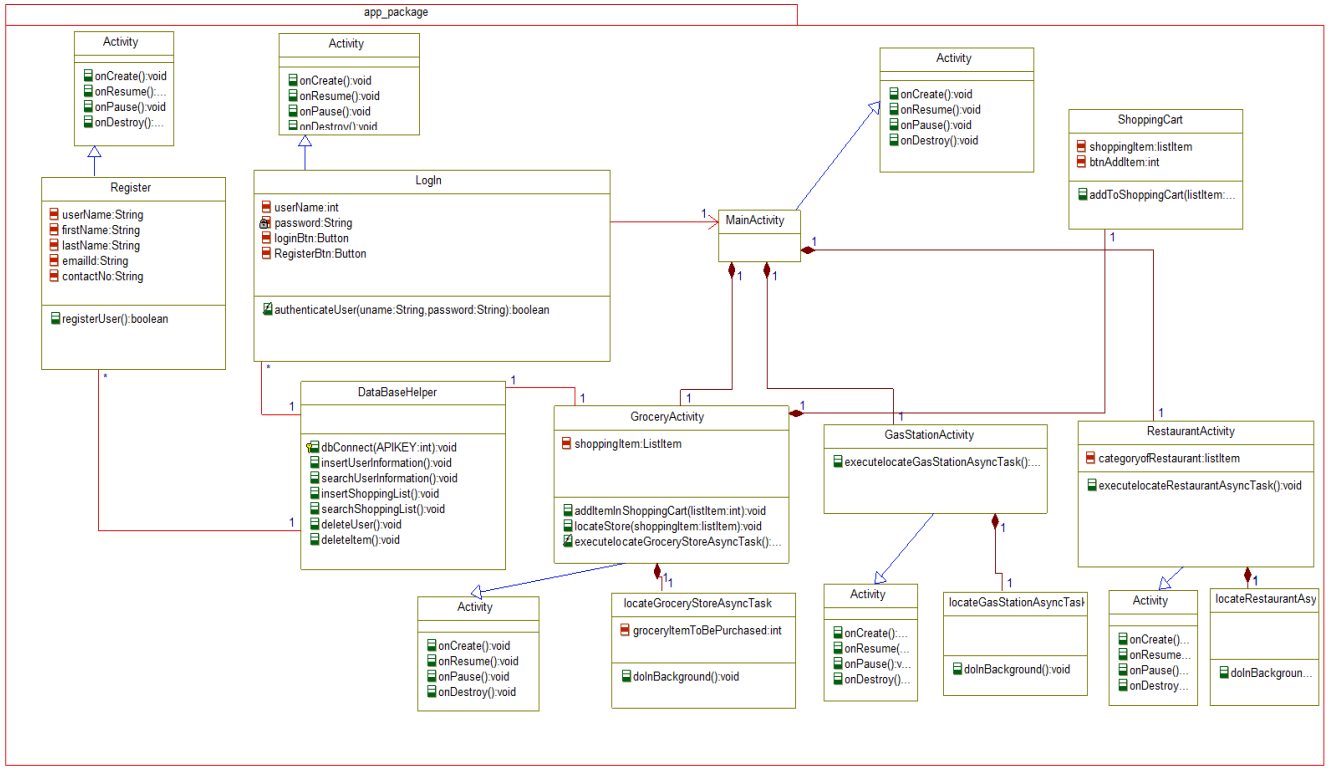
The app accepts user inputs, maps user's request for grocery item search, gas station search, restaurants search belonging to a particular category to the relevant API's shown below and provides responses to the user. The app interacts with MongoDb whenever any data is required.



UML Sequence diagram:



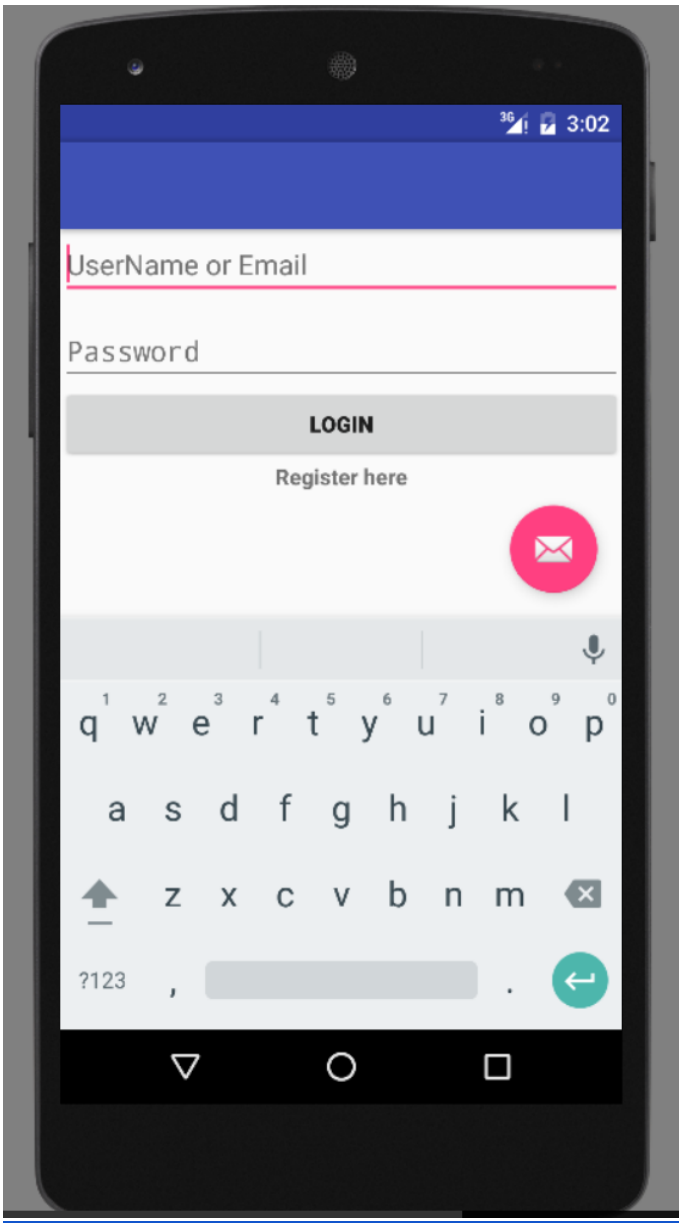
UML Class diagram:

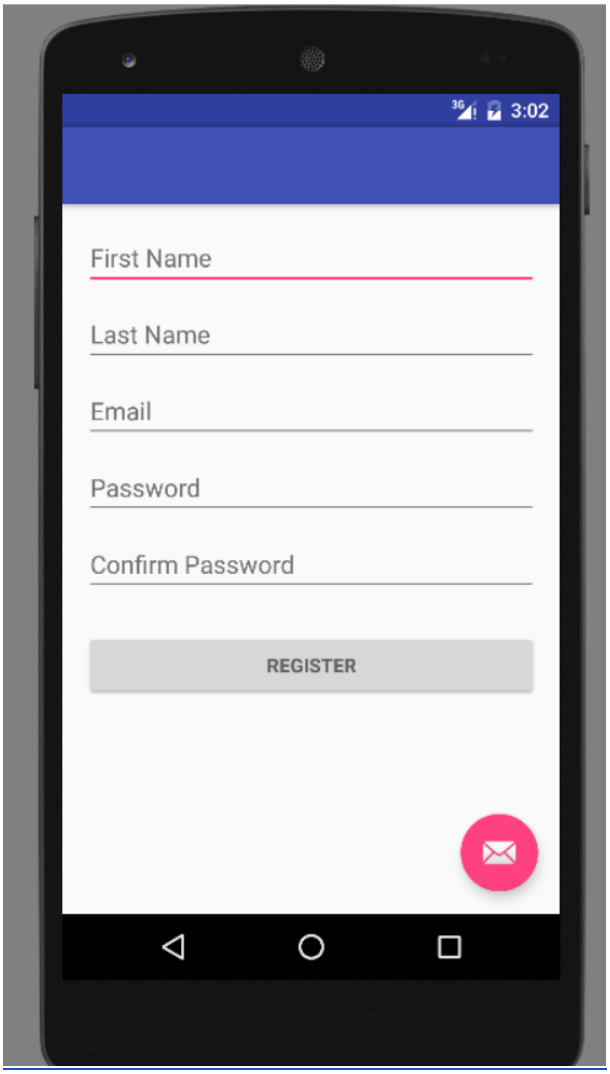


Deployment:

The application in current form uses SQLite. However we have established connection with MongoDB platform and this will be used for later phases of the project.

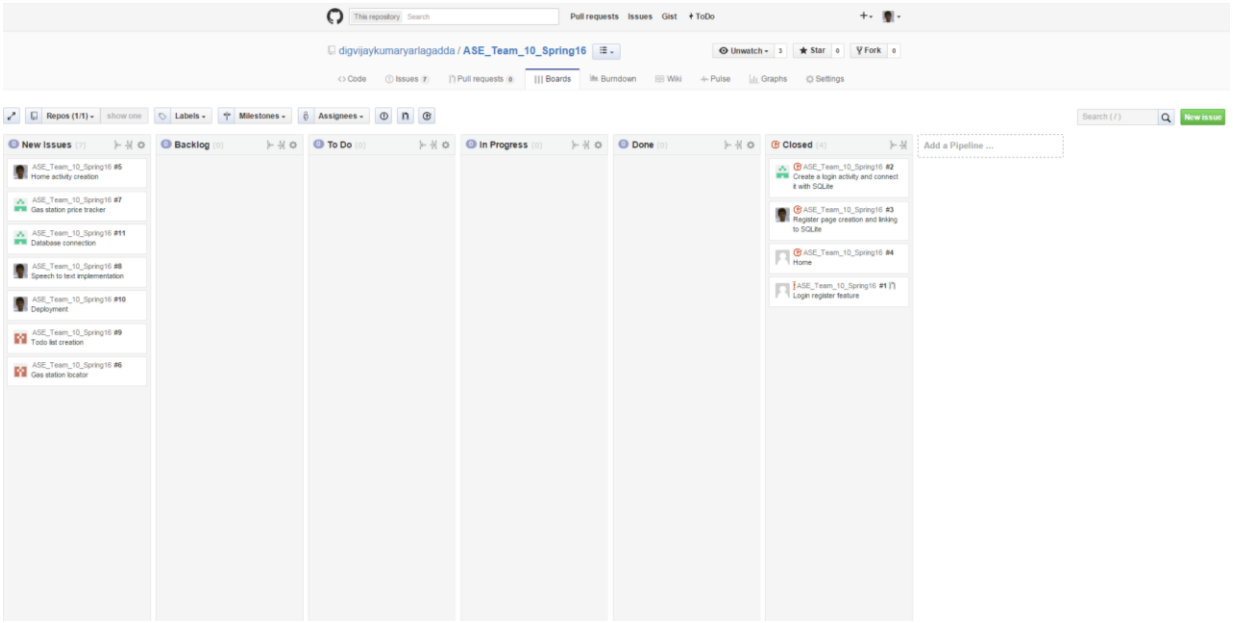
Project screenshots:





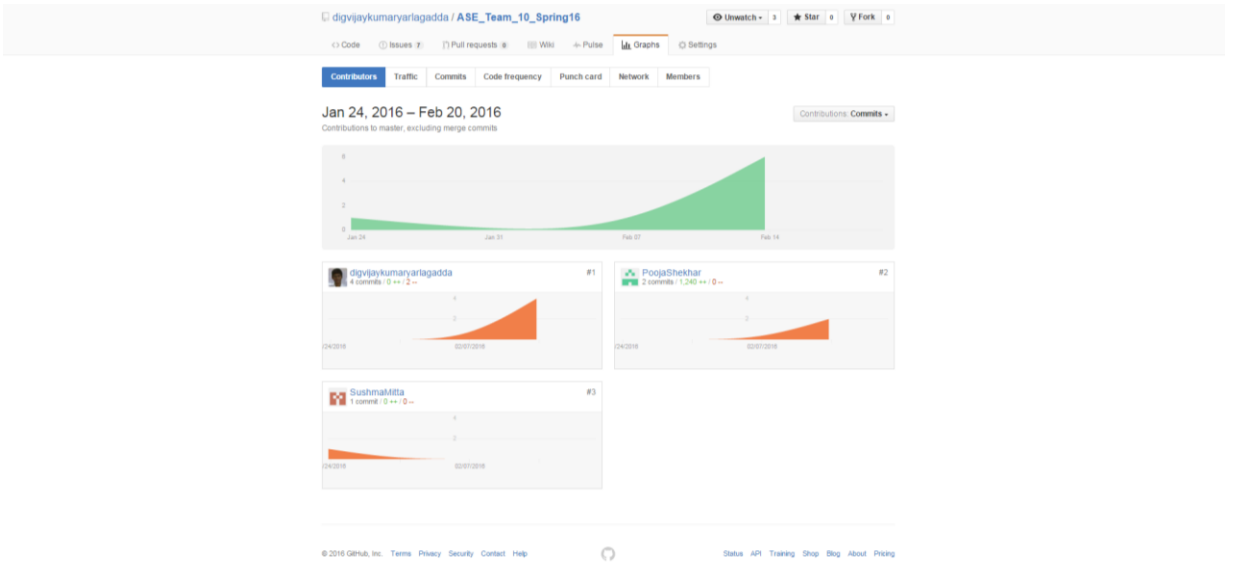
Project GitHub repository:
https://github.com/digvijaykumaryarlagadda/ASE_Team_10_Spring16

Project Management:



Team members contribution:

Pooja Shekhar (25%) – Login page creation, setting up MongoDB connection, UML diagrams
Dig Vijay Kumar Yarlagadda (25%) – Wireframes, UML diagrams, Project report, Android app coding
Sushma Mitta (25%) – Register page creation and setting up SQLite, UML diagrams
Chandra Sekhar Janyavula (25%) – Project report and Architecture diagram



Bibliography:

[1]. http://www.mygasfeed.com/keys/intro
[2]. https://www.yelp.com/developers/documentation/v2/overview
[3]. https://developers.google.com/web/updates/2013/01/Voice-Driven-Web-Apps-Introduction-to-the-Web-Speech-API?hl=en