

Advanced Software Engineering

Third Increment Report

Fall 2016



TEAM - 6

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I. Introduction

Share up is a multi-platform application which saves the lot of bucks you spend in buying grocery items by searching for the cheaper and precise deals, for the people who want to shop together. Most of the groceries people tend to buy will probably be similar. So, if they buy those things in bulk they are likely to save a lot of money. They likely to face problems in sharing household expenses due to lack of understanding. To overcome these problems, we planned to create this application which significantly overcomes the above-mentioned problems in an efficient way. Each person who signs up has the credentials to create a group and add members to it. Each group will have a shopping list which any member can access and modify. So, for all the common things you can find cheaper deals, as our idea is to find one in bulk. The unnecessary portion which is yet to be bought can be shared with other members of any group by posting in a common forum visible to all other users who can contact the user to buy. The application also contains features to keep track of the money people owe each other, their monthly expenses and prediction of monthly as well as yearly expenses.

II. Project Goal and Objectives

Overall goal

The goal of this project is to create an android application which is useful for people living together in shared rooms/apartments for spending money smartly and share wisely.

Objectives

- To reduce cost of buying items by smart spending feature.
- To get price of grocery items using API call(s).
- To provide common shopping list for all the members in a group.
- To test the application before deploying to uncover bugs.

Specific Features

- Smart spending feature - which finds match for the required product with required quantity.
- Shopping list - which contains things that need to be purchased soon.
- Expense Manager - to manage bills and shared expenses among roommates.
- Common forum for sharing the product to be bought (quantities specified by the hosting group).
- Scanning items with barcode plugin.

Smart spending and sharing will change the way people spend for buying grocery items and manage their expenses. There may be many applications which offer similar features, but this application performs these tasks in a single user interactive application.

Stories(Issues)

Project Timelines

[Code](#)
[Issues 6](#)
[Pull requests 0](#)
[Boards](#)
[Reports](#)
[Projects 0](#)
[Wiki](#)

[Labels](#)
[Milestones](#)
[New milestone](#)

4 Open
0 Closed
Sort

Increment 3

Due by November 9, 2016 Last updated 6 minutes ago

25% complete

6 open 2 closed

[Edit](#)
[Close](#)
[Delete](#)

Increment 2

Past due by 26 days Last updated 15 minutes ago

100% complete

0 open 12 closed

[Edit](#)
[Close](#)
[Delete](#)

Increment 1

Past due by about 1 month Last updated about 1 month ago

Revised project proposal, login page credentials and shopping list layout

100% complete

0 open 12 closed

[Edit](#)
[Close](#)
[Delete](#)

Increment 4

Task Responsibility

[Code](#) [Issues 6](#) [Pull requests 0](#) [Boards](#) [Reports](#) [Projects 0](#) [Wiki](#)

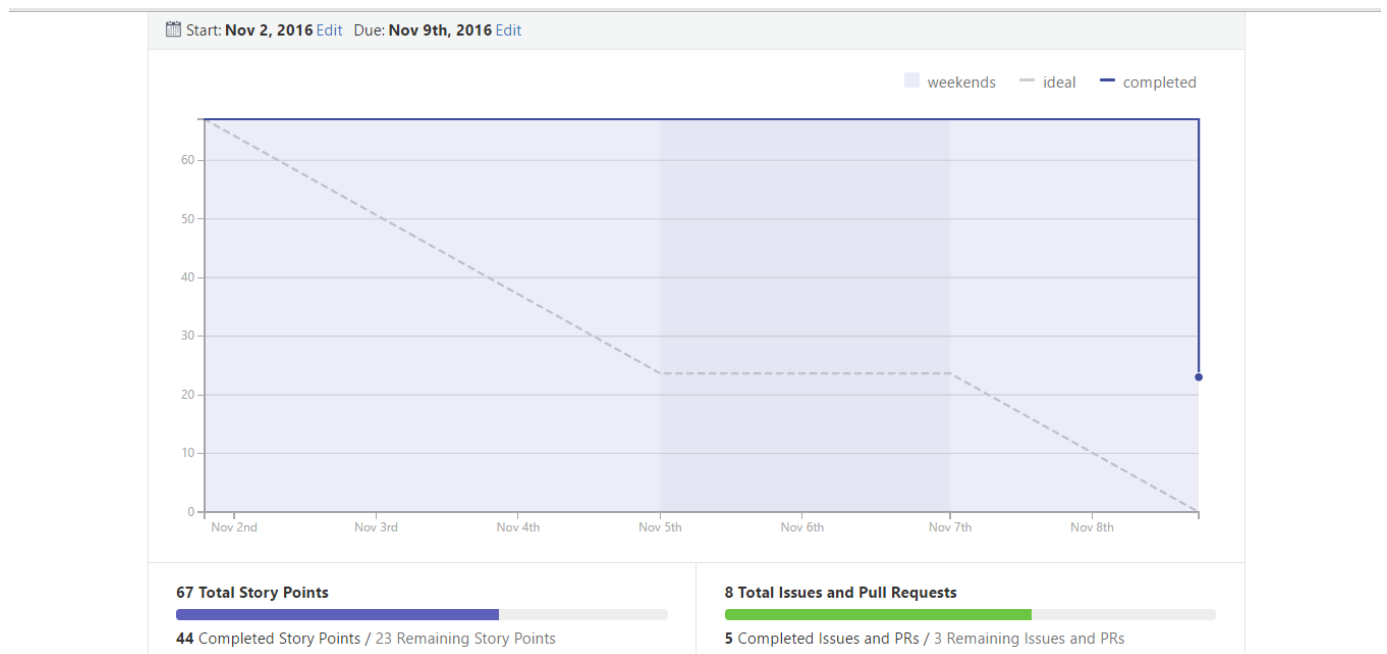
Filters

Labels Milestones

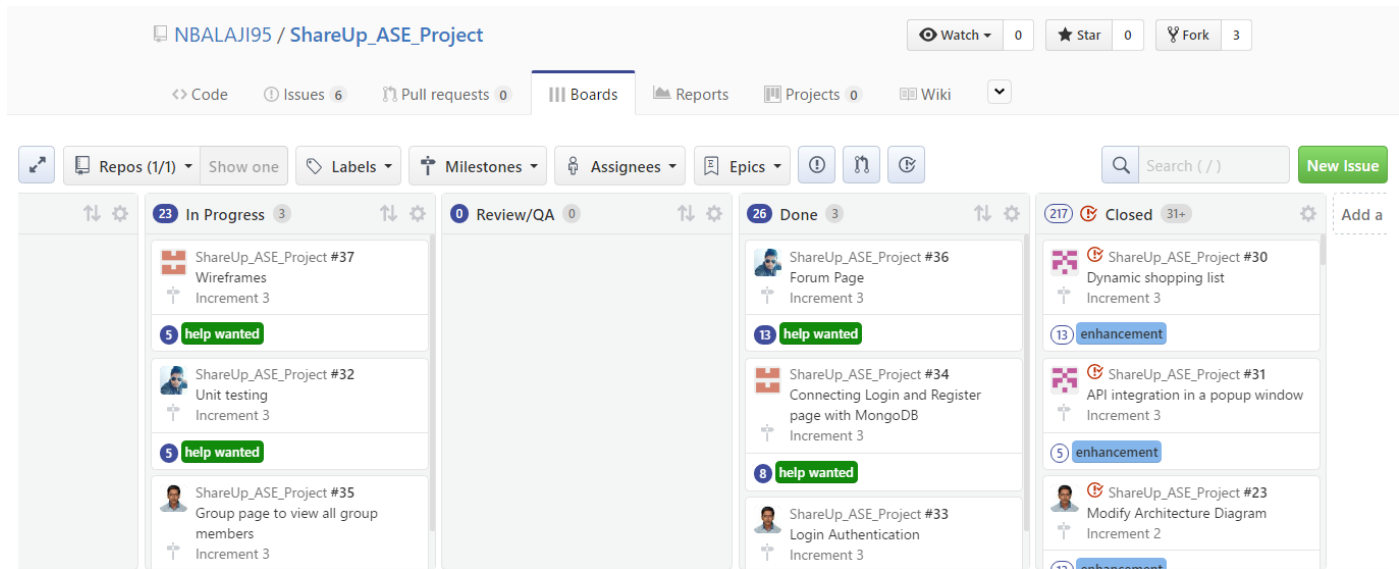
New issue

<input type="checkbox"/>	6 Open	26 Closed	Author	Labels	Milestones	Assignee	Sort
<input type="checkbox"/>	Wireframes help wanted 5						
	#37 opened 6 minutes ago by NBALAJI95 Increment 3 In Progress						
<input type="checkbox"/>	Forum Page help wanted 13						
	#36 opened 10 minutes ago by NBALAJI95 Increment 3 Done						
<input type="checkbox"/>	Group page to view all group members help wanted 13						
	#35 opened 10 minutes ago by NBALAJI95 Increment 3 In Progress						
<input type="checkbox"/>	Connecting Login and Register page with MongoDB help wanted 8						
	#34 opened 11 minutes ago by NBALAJI95 Increment 3 Done						
<input type="checkbox"/>	Login Authentication bug 5						
	#33 opened 12 minutes ago by NBALAJI95 Increment 3 Done						
<input type="checkbox"/>	Unit testing help wanted 5						
	#32 opened 13 minutes ago by NBALAJI95 Increment 3 In Progress						

Burndown Chart



Board



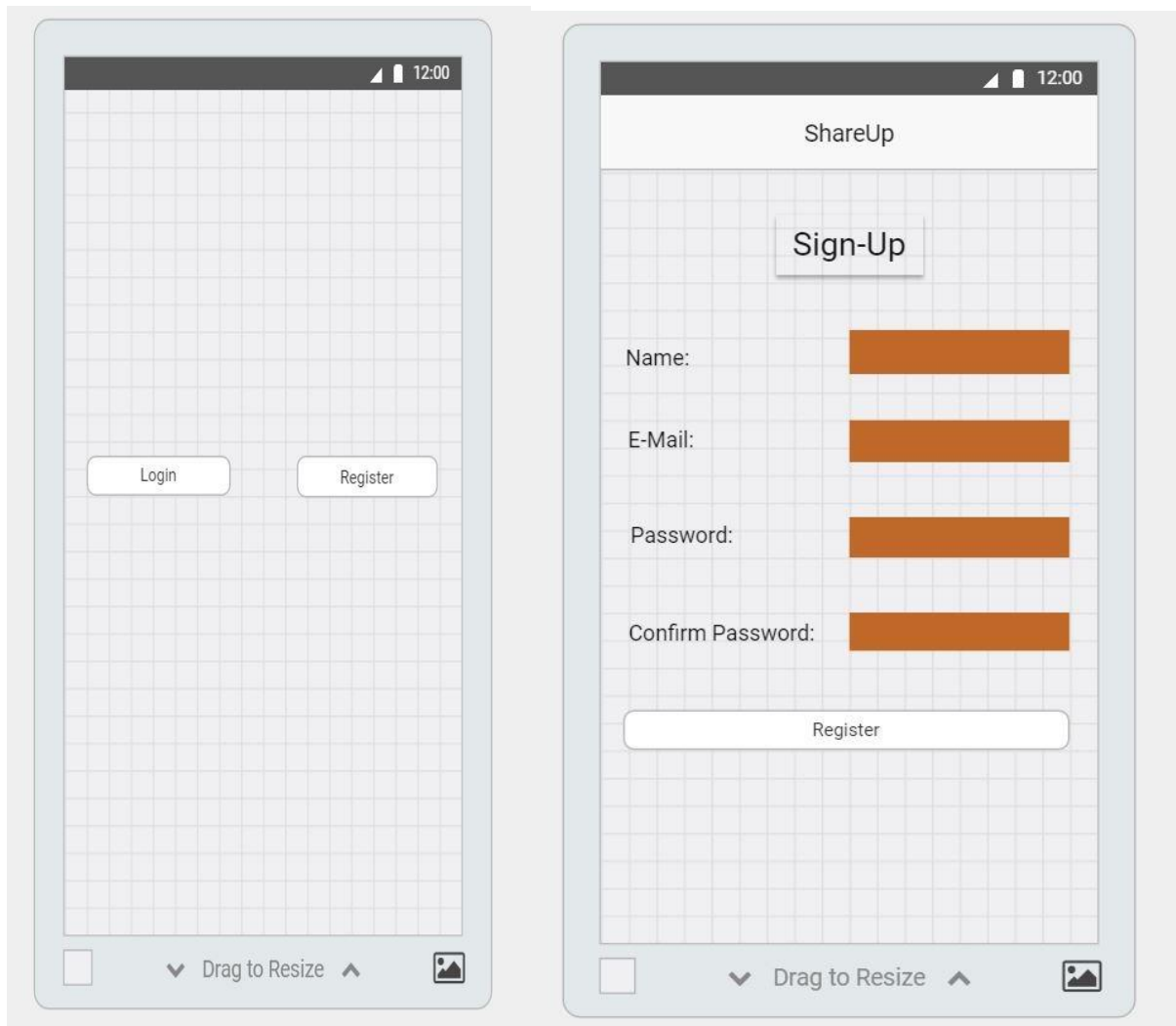
IV. Third Increment Report

Existing Services/REST API

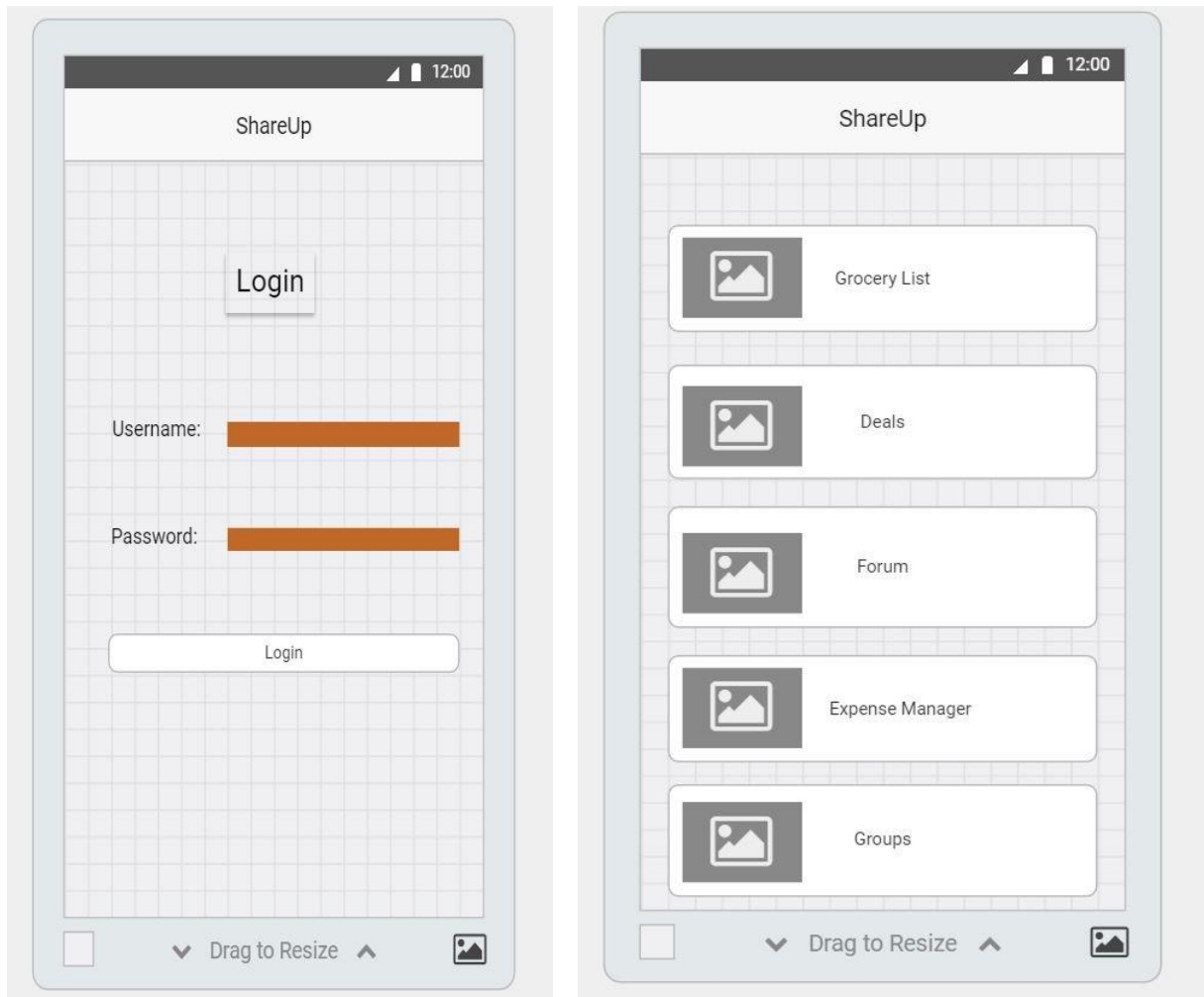
Walmart API
MongoDB API
SQL Lite

Detail Design of Features (using tools) Wireframes

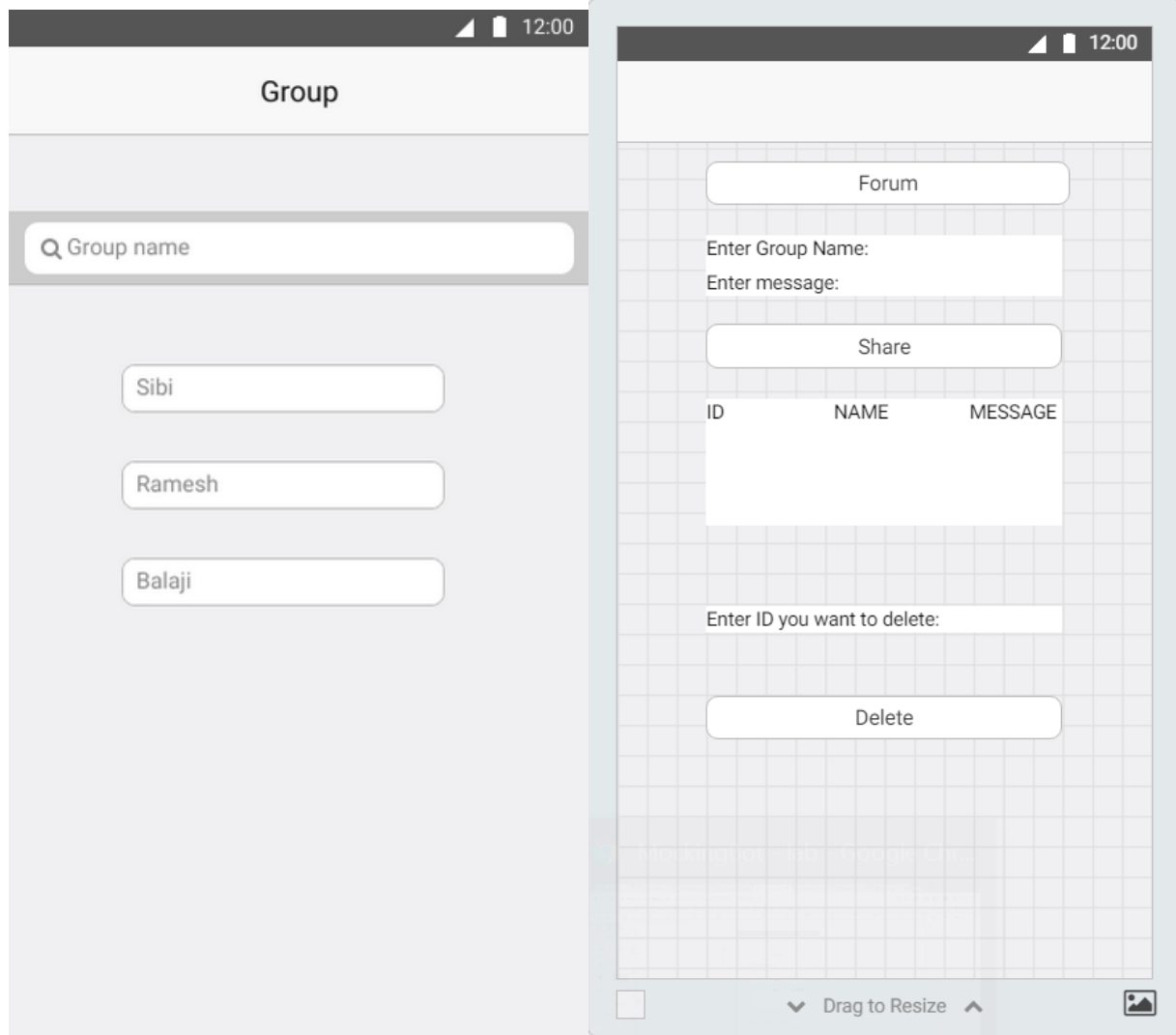
A wire frame for the main page and the login page has been created and a screenshot has been displayed Below.



A screenshot for the login page and the home page has been created below.



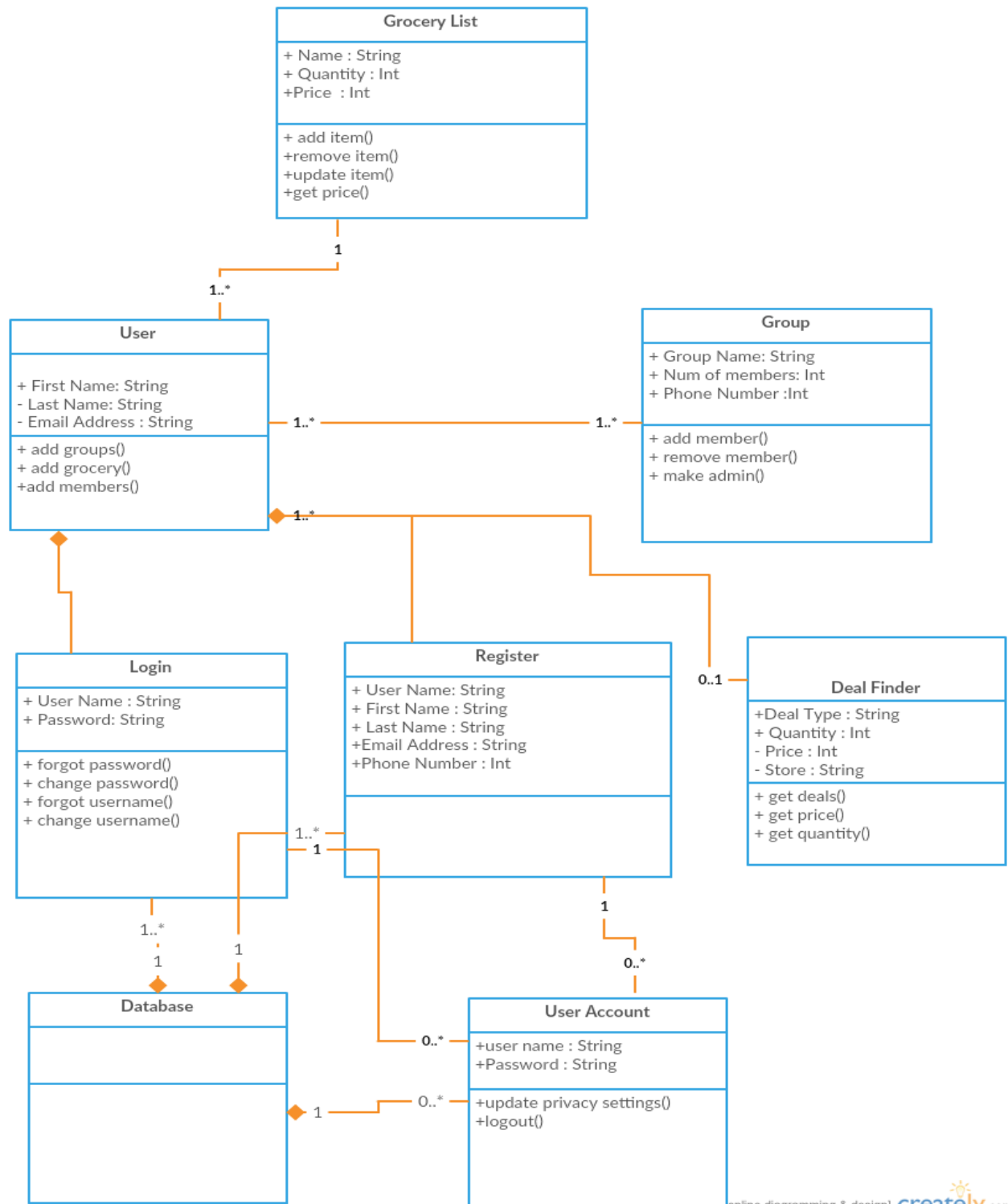
A wireframe for the group page and the forum page has been created and the screenshots have been Displayed below.



UML Class Diagram

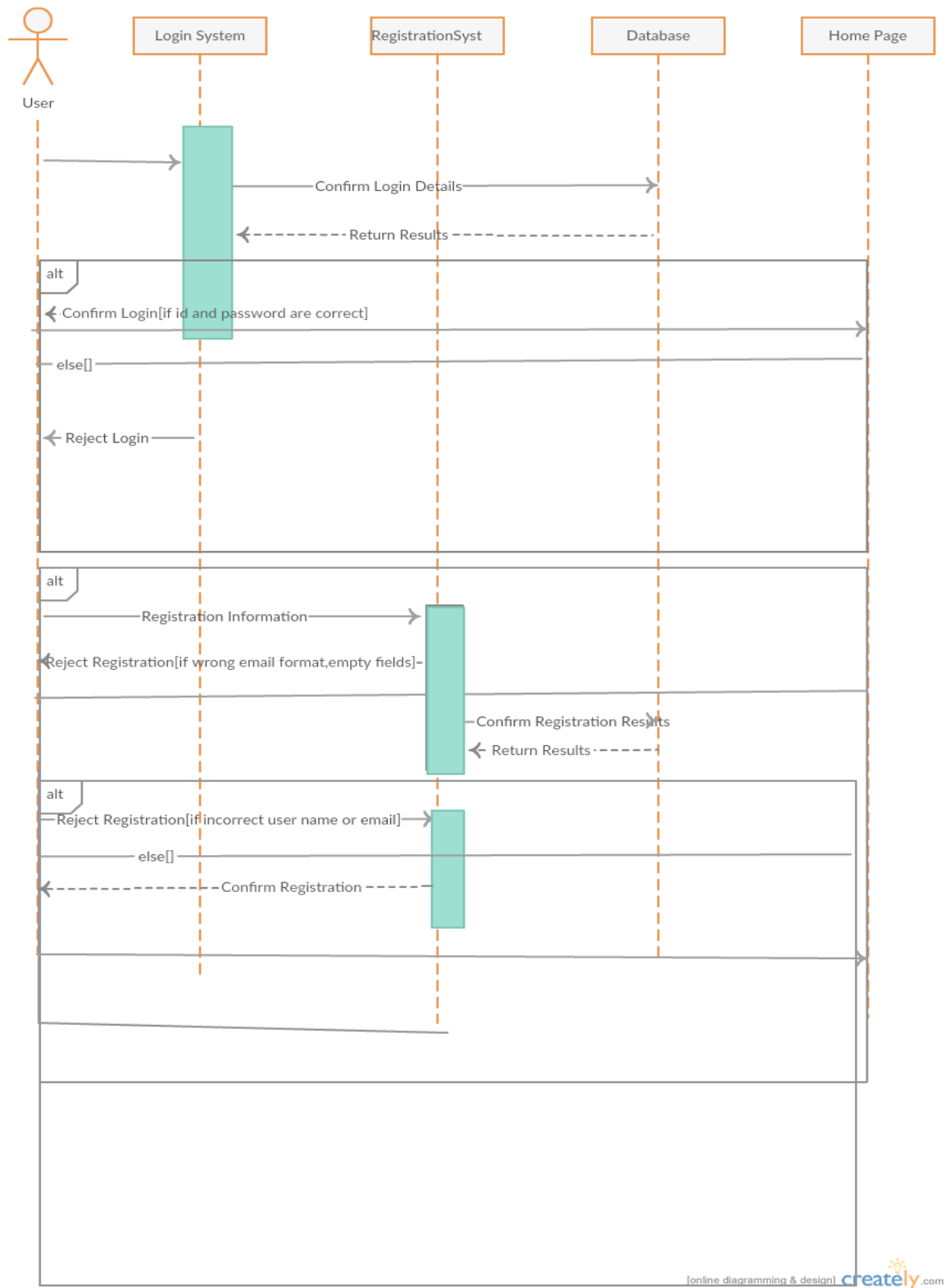
A class diagram has been created with the following classes

- grocery list
- user
- group
- login
- register
- deal finder
- user account



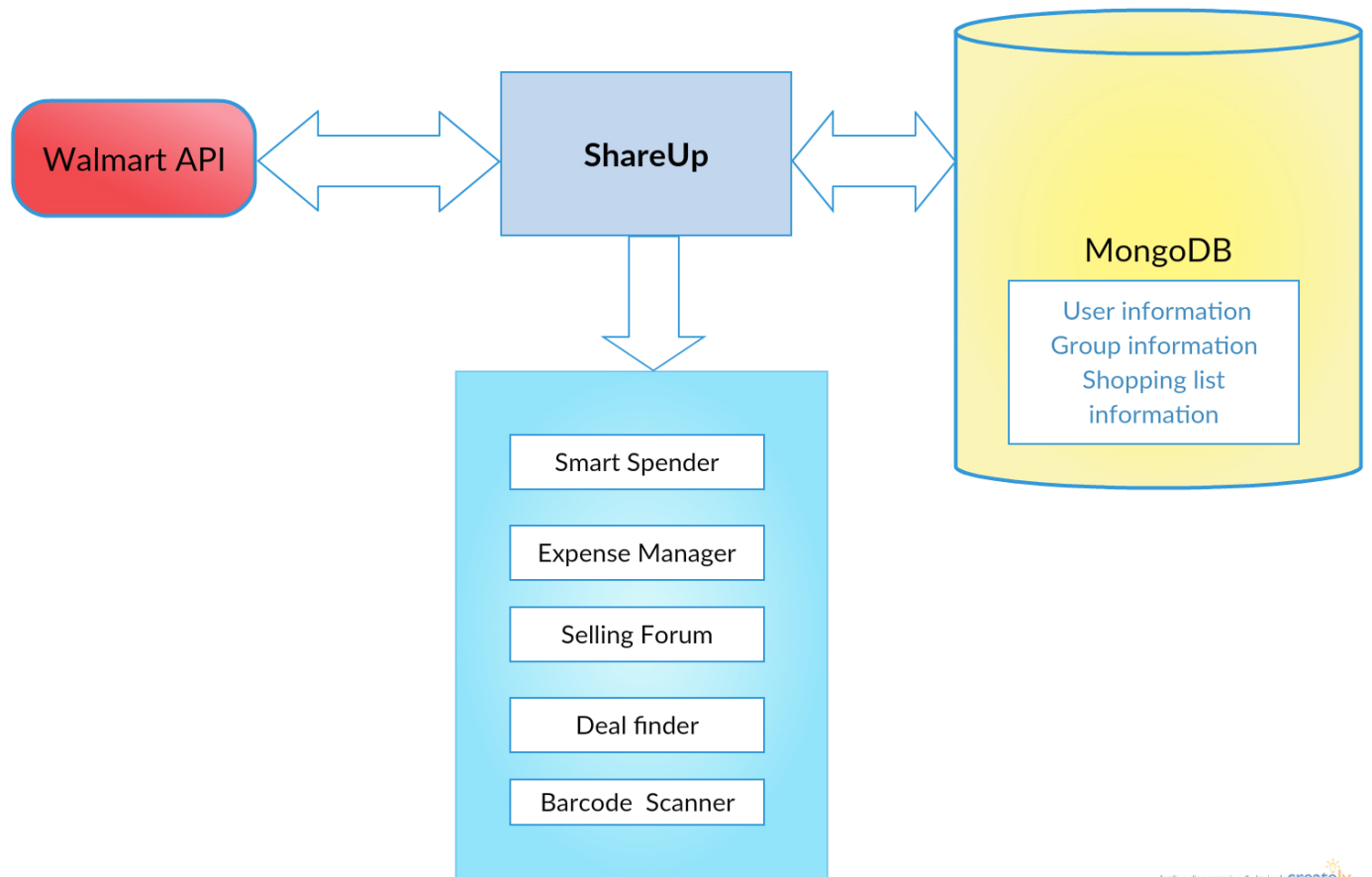
Sequence Diagram

A sequence diagram for the same scenario has been created and the screenshot has been displayed below.



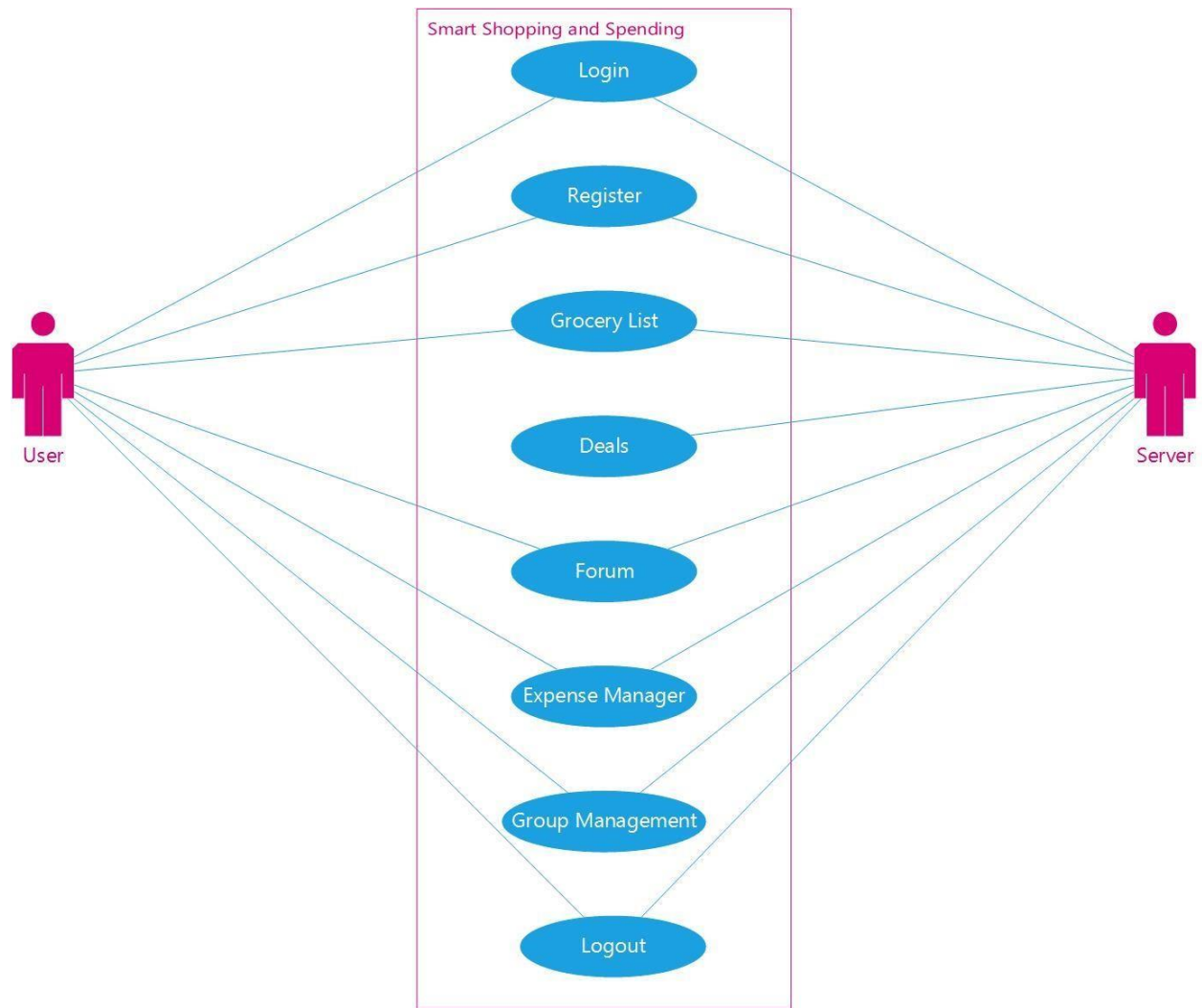
Architecture Diagram

An architecture diagram displaying how the ShareUp project make uses of different API and how mongo DB has been used in the back end for storying the group information retrieving login and registration pages Details and how authentication is done is displayed.



Use Case Diagram

A use case diagram from the user side and the server side has been displayed below.



Implementation screenshot

A login and a registration page has been created where a Mongo DB is connected at the back end where an Authentication is done. First the user is prompted to the registration page where is the user is asked to enter The basic details will be entered and after successful registration the user will be prompted to the login page And after successfully logging in the user will be prompted to the home page.

Registration Page Screenshot

Field	Placeholder	Value (Right Screenshot)
Username	UserName	nikitha
Password	Password	*****
Confirm Password	Password	*****
Mobile Number	Mobile Number	9136027227
Name	Nick Name	nikky123
Group Name	Group Name	group001

Both screenshots feature a blue header with the text "User Registration" and a "Login" button with a right arrow. Below the header is a form with six input fields. The left screenshot shows the form with empty inputs, while the right screenshot shows the form with sample data. At the bottom of each form is a blue "SignUp" button.

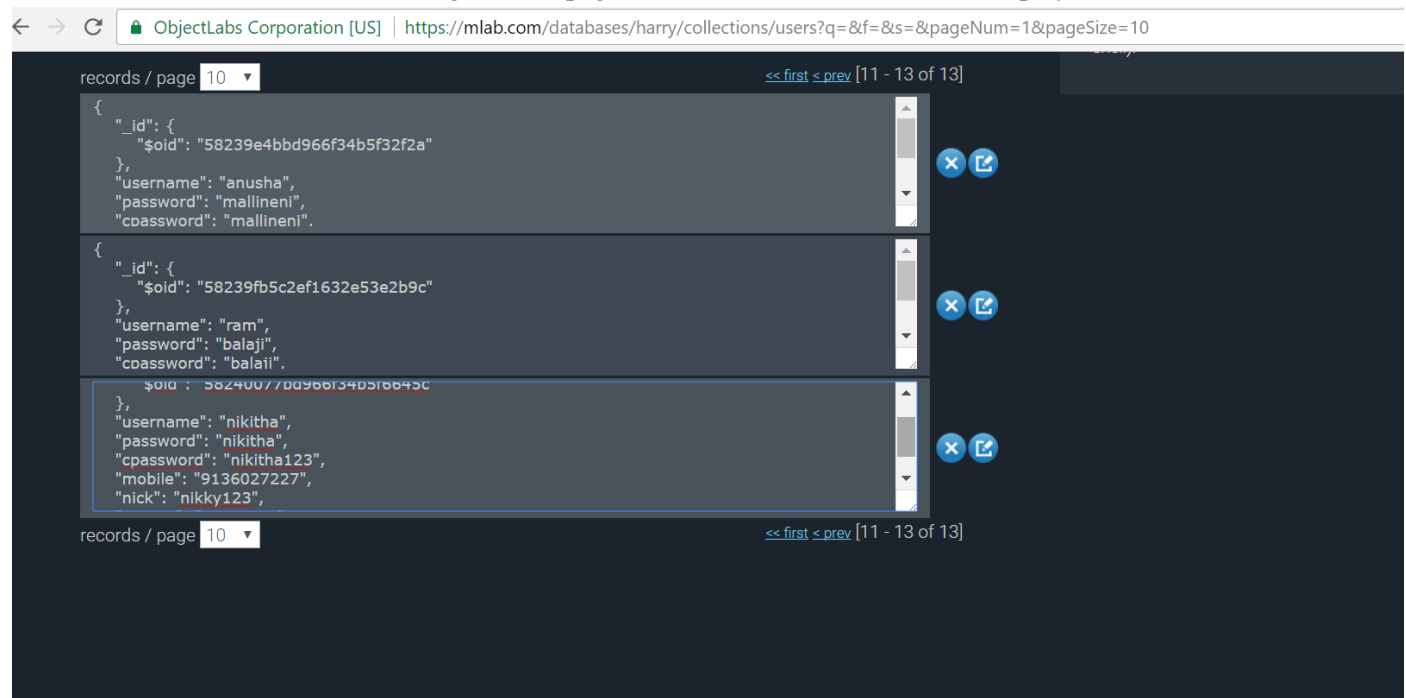
JSON Response Screenshot

A JSON response for the below registration has been displayed below where all the details given in the registration Page is displayed below



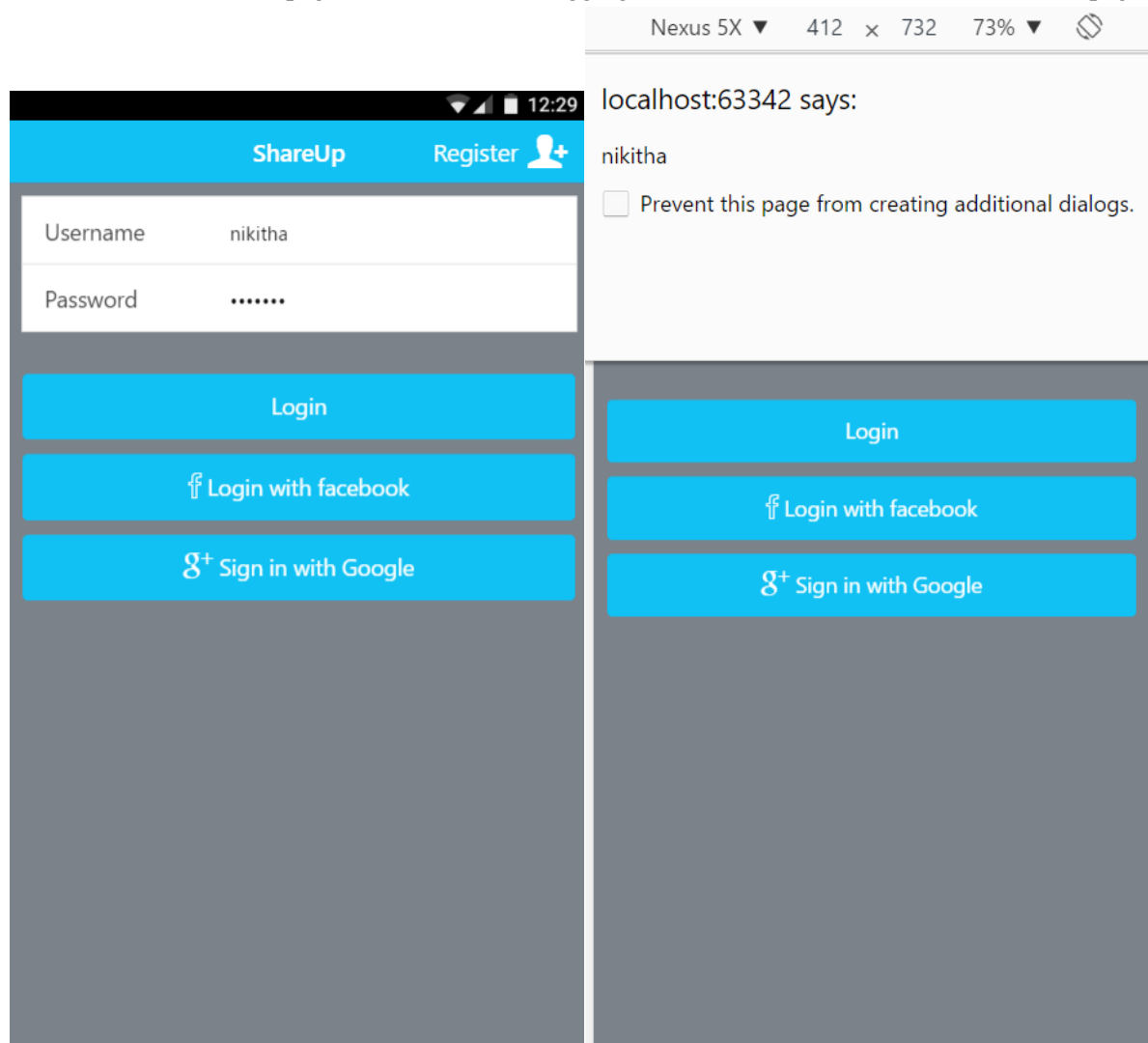
Mongo DB Screenshots

Once the user has registered the details are stored in the MongoDB database. MongoDB API is used. A HTTP post and get methods are used for storing and retrieving the user details. The screenshot for the information that is used in the registration page is stored and the screenshot is displayed below.



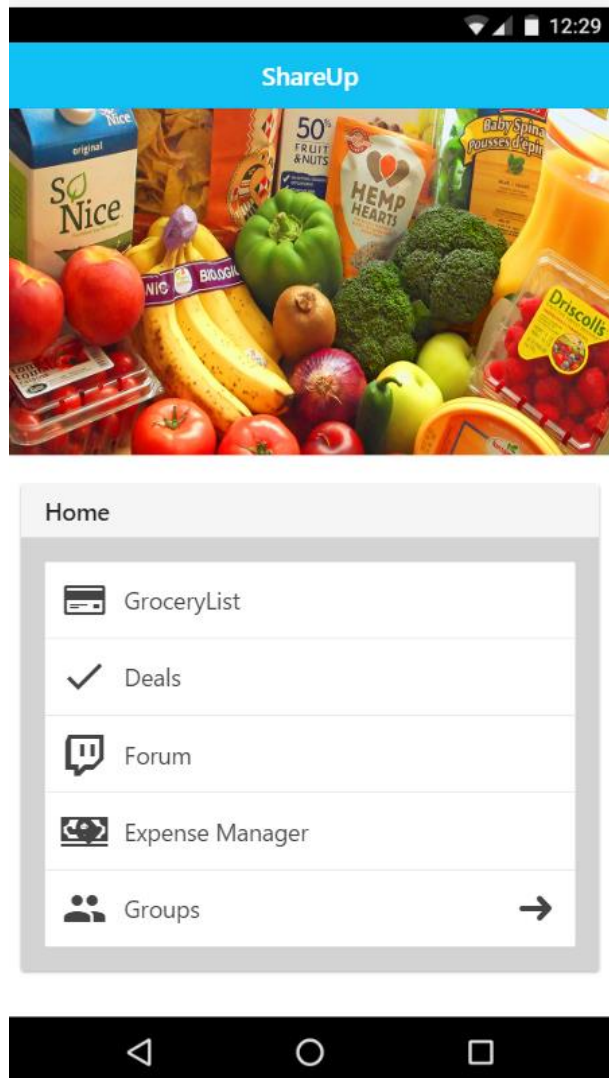
Login Page Screenshot

Once the user has registered and has given the same credentials as that in the registration page the user will be Redirected to the Home page. After successful logging in the username is directed to the home page.



Home Page

Once the user has logged in the user is redirected to the home page where is the user prompted with many Options.



Group Page

Once the user clicked the group button the user is redirected to the group page. All the users with same group number are displayed. The screenshots are displayed below. Here a group number **group001** is entered and all the users are displayed are below. Where this group information is used for the forum page. The names that are displayed are

Ram

Nikitha

Varshi

The screenshots have been displayed below. A mongo DB screenshot has been displayed that stores the group information and the corresponding names that are displayed.

Group Name

group001

ram









nikitha

varshi

Get Group Members

Display mode: ☒ list ☐ table (edit table view)

records / page 10 << first < prev [11 - 14 of 14]

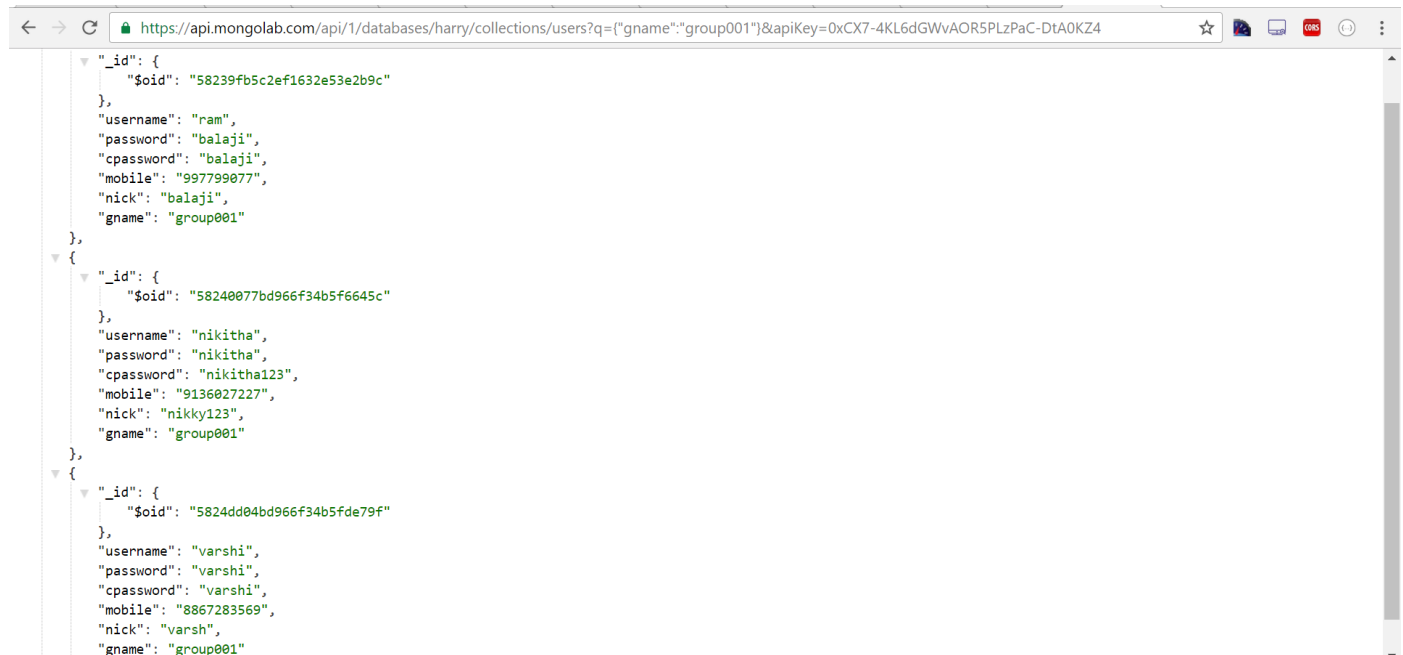
<pre>{ "username": "anusha", "password": "mallineni", "cpassword": "mallineni", "mobile": "8867283569", "nick": "anu", "gname": "group000" }</pre>	 
<pre>{ "username": "ram", "password": "balaji", "cpassword": "balaji", "mobile": "997799077", "nick": "balaji", "gname": "group001" }</pre>	 
<pre>{ "username": "nikitha", "password": "nikitha", "cpassword": "nikitha123", "mobile": "9136027227", "nick": "nikky123", "gname": "group001" }</pre>	 
<pre>{ "username": "varshi", "password": "varshi", "cpassword": "varshi", "mobile": "8867283569", "nick": "varsh", "gname": "group001" }</pre>	 

records / page 10 << first < prev [11 - 14 of 14]

supported in this UI (although they are supported in the shell).

JSON Response Screenshot

A JSON response for the group page is displayed below which displays all the users registered in the particular Group.



```
< --> https://api.mongolab.com/api/1/databases/harry/collections/users?q={"gname":"group001"}&apiKey=0xCX7-4KL6dGWvAOR5PLzPaC-DtA0KZ4
[
  {
    "_id": {
      "$oid": "58239fb5c2ef1632e53e2b9c"
    },
    "username": "ram",
    "password": "balaji",
    "cpassword": "balaji",
    "mobile": "997799077",
    "nick": "balaji",
    "gname": "group001"
  },
  {
    "_id": {
      "$oid": "58240077bd966f34b5f6645c"
    },
    "username": "nikitha",
    "password": "nikitha",
    "cpassword": "nikitha123",
    "mobile": "9136027227",
    "nick": "nikky123",
    "gname": "group001"
  },
  {
    "_id": {
      "$oid": "5824dd04bd966f34b5fde79f"
    },
    "username": "varshi",
    "password": "varshi",
    "cpassword": "varshi",
    "mobile": "8867283569",
    "nick": "varsh",
    "gname": "group001"
  }
]
```

Forum Page

A forum page has been created where the user can post the details of the extra grocery items and the user can Post the details. SQL lite database is used.

Forum

5348

i have dozen egg left 0.45\$

Share

ID	Grroup Name	Message
1	5049	I have 4 pepsi 200 ml left each 10\$
2	5347	I have 3 doritos each 3\$ anyone wanna share

3

Delete

Forum

5348

i have dozen egg left 0.45\$

Share

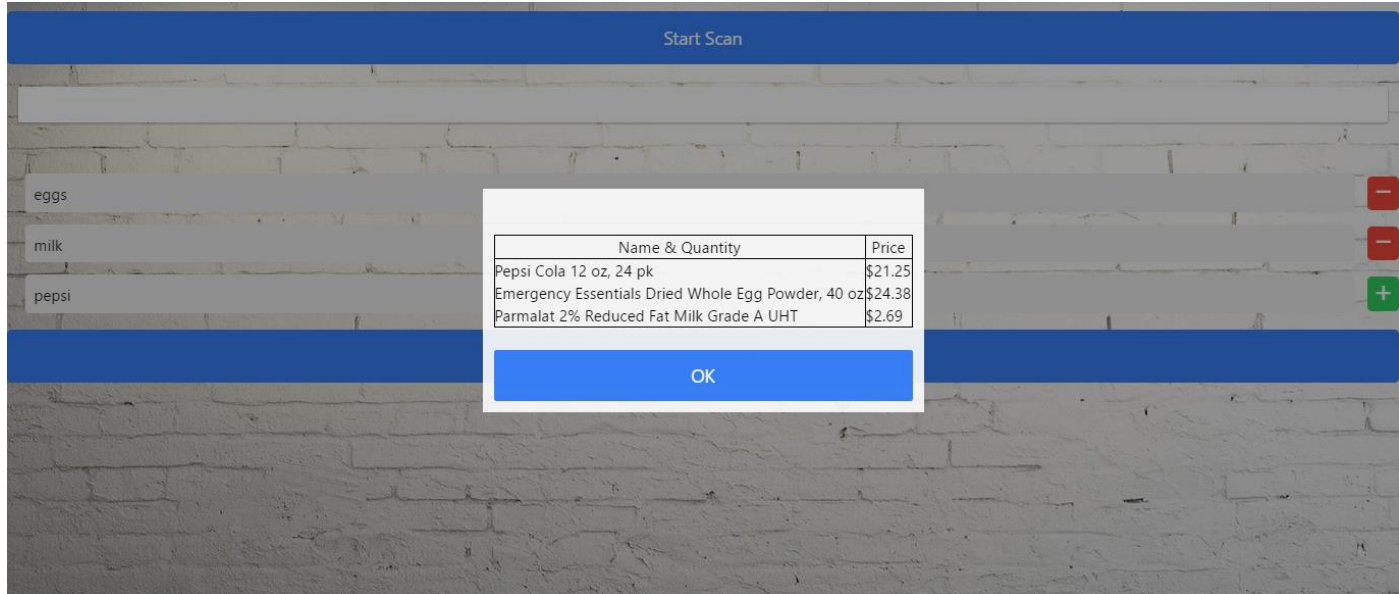
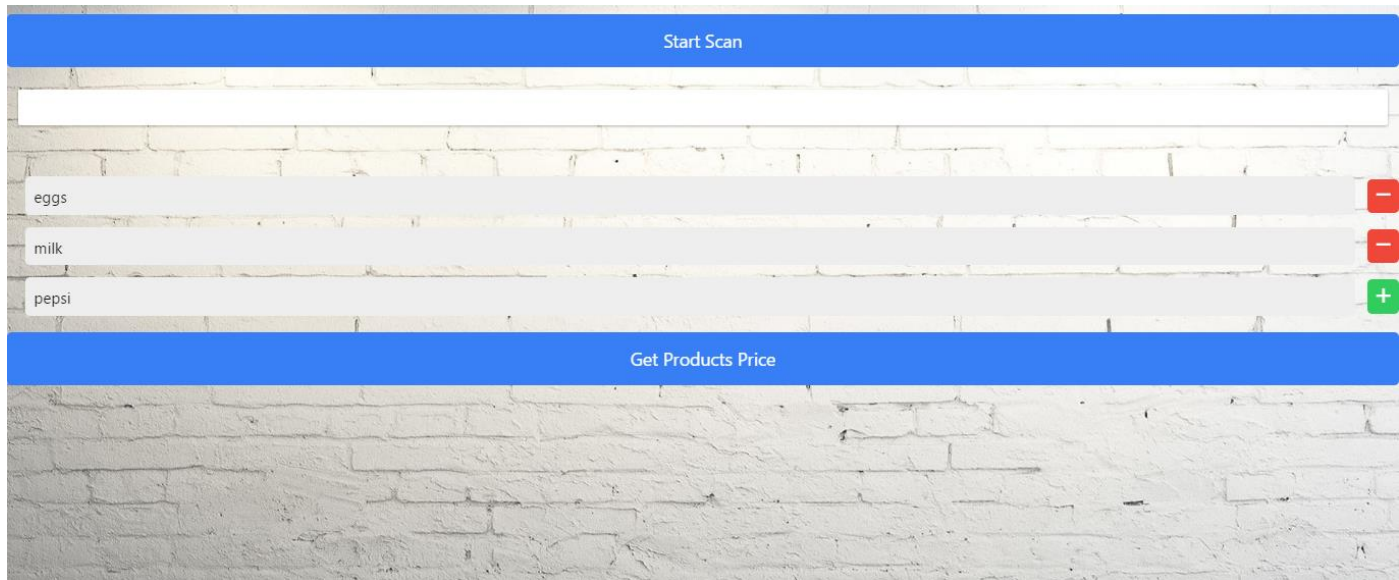
ID	Grroup Name	Message
1	5049	I have 4 pepsi 200 ml left each 10\$
2	5347	I have 3 doritos each 3\$ anyone wanna share

3

Delete

Grocery List Page

A grocery list page asks the people in the group to add the required items. A Walmart API call is made and all The details are displayed



Project Management

Implementation status report

Technology Used: Ionic, HTML, CSS, JS, Walmart API and Angular JS.

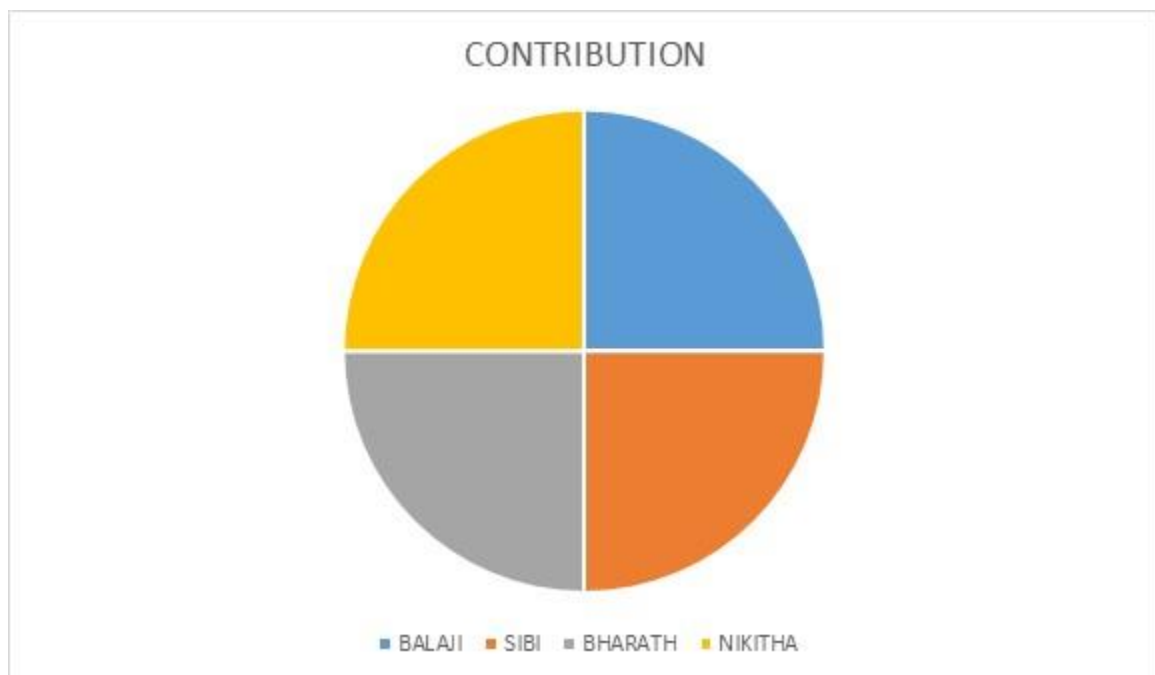
Work Completed

- Login, Registration and home page updating
- Shopping list update with Product price obtained from Walmart API

- MongoDB has been connected at the end for retrieving the data
- A forum page has been created using SQL lite where the user can post about the products.

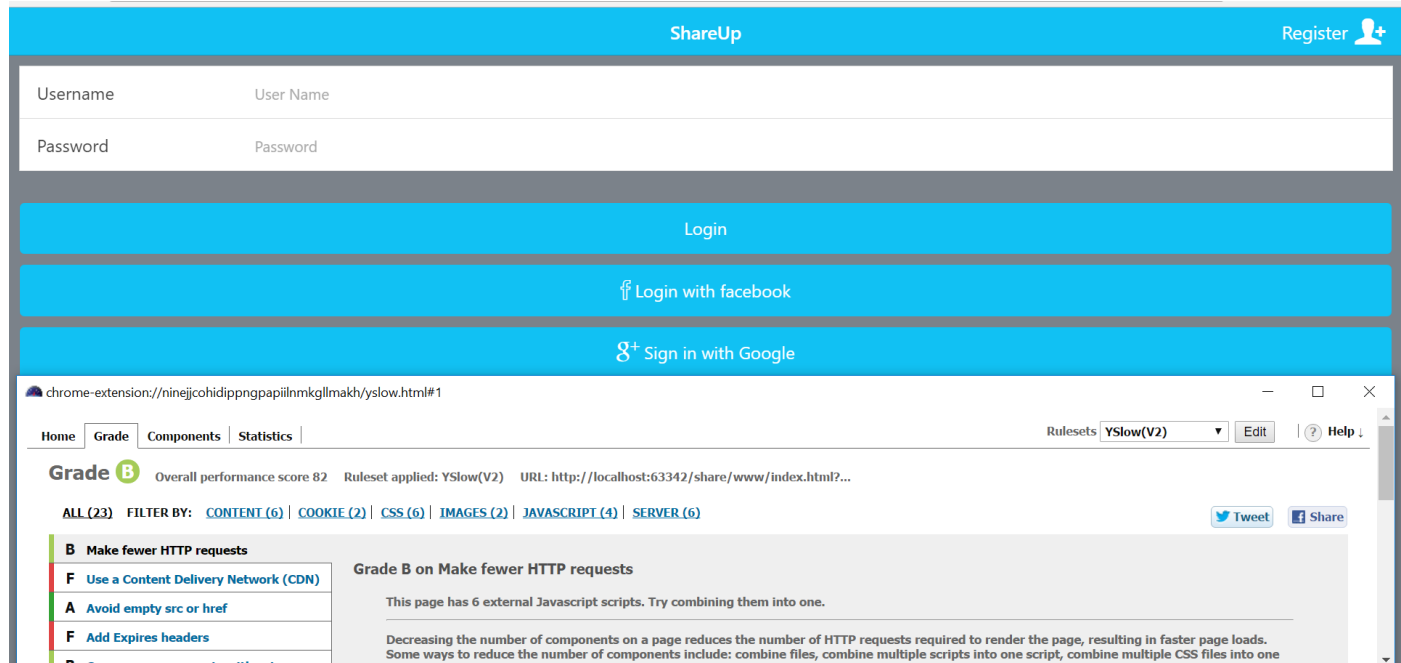
Contribution:

- Balaji Natarajan – 25%
- Bharath Kumar A – 25%
- Sibi Chakravarthy Ramesh – 25%
- Nikitha Kona – 25%



Yslow

Yslow page testing has been done and the grade of the project is displayed below.



Unit Testing

Unit testing is performed on different validations in the login and the registration page. First the user is redirected to the registration page once all the details are given the user is redirected to the login page. All the validations are performed for different login and registration cases and a table has been displayed below

S.No	Title	Description	Outcome Expected	Result
1	User Verification Successful	The user should login with his/her password and username	Login should be successful	Pass
2	User Verification Failed	Login to the system with wrong password/username	Login should fail with an error "Invalid Username/Password"	Pass
3	User Login Successful	The user logs into the system with password/username	Login should be successful and the user should enter into the Home page	Pass
4	New User Registration	The user should enter the details into the page and should be accepted by the admin	User should go to Home page	Pass

Work To Be Done In Next Increment

In the final increment an API to implement deal finding need to be done to give the user various deals. Also enhancement to the existing features will be implemented.

Bibliograph

<http://ionic.io/developers>

<http://creatly.com/>

<https://mockingbot.com/>

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