CS5551 ADVANCED SOFTWARE ENGINEERING

PROJECT REPORT, PHASE – I

Project Title: ROOKART

Project Owners:

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1.0 Introduction

RooKart is a UMKC community based e-commerce mobile application which empowers Students and Staff members bearing a valid registered UMKC Email id, to Sell or Buy Products, Offer Services, Post Classified Advertisements, Offer Deals on Demand etc.
As all the transactions and Product and Services are exchanged in between the University related community High Reliability, Easy Shipping and Quality services are guaranteed.

Once user is registered with RooKart, the user will able to see, all the products and services currently available on the for sale Such as Electronics, Furniture etc for Sale or Painting Classes, Fitness Class, Cooking Services etc.
User as a Seller can post their Products for sale on Categorised Platforms provided by Rookart with the Complete history of the Product with images, Geo-location and Price amount etc. Similarly, User can post all the services they wish to offer with complete description, images, pricing details and duration, geo-locations etc.

This Project is divided into four Iterations, each iteration will improve the implementation features. The current iteration is Iteartion -1/ Phase – I.

1.1 Phase – 1 includes

1. Design and Implementation of the application with the Login Page, Registrartion Page, Home Page.
2. UML Class Diagram, Sequence Diagram, State Diagrams, Wire Frames related to the above functionalities.

2.0 Functionalities:

2.1 Login Page

Login Page is the landing page upon opening RooKart application, Login page lets the user to login upon succesfull validation of user credentials. User needs to input registerted email id and password. If the user does not have an account on RooKart, he should register.

2.2 Register Page

Register page collects the personal information of the user such as, User Name, Email ID, Password and Mobile Number and creates an account for the user.

2.3 Home Page

Once the user account is verified, Post Login user is redirected to this Home Page, which offers the in app services as Products and Services.
Upon on selecting one the user is redirected to the Product/ Service Page.

3.0 Proposed System

3.1 Functional Requirement Specification:

I. User Should have a sign in.
II. If User is new to RooKart User should Register
III. User should be able to Provide Personal Information.
IV. User details are need to be validated.
V. Upon Successful login User should see the Home Page – Product and Services Page.
VI. User be able to Logout.

4.0 Tools and Technologies:

I. ANDROID STUDIO
II. Front end: JavaScript
III. Programing Language: Java
IV. Creately

5.0 Development

System Design

I. Login: Users login using their registered UMKC email address and password.
II. Registartion: Collects the personal information of the user and creates an account.
III. Information Collected: User Name, Email id, Password, Phone Number.
IV. Home page: Consists two buttons, Products, Services.

6.0 User Interface

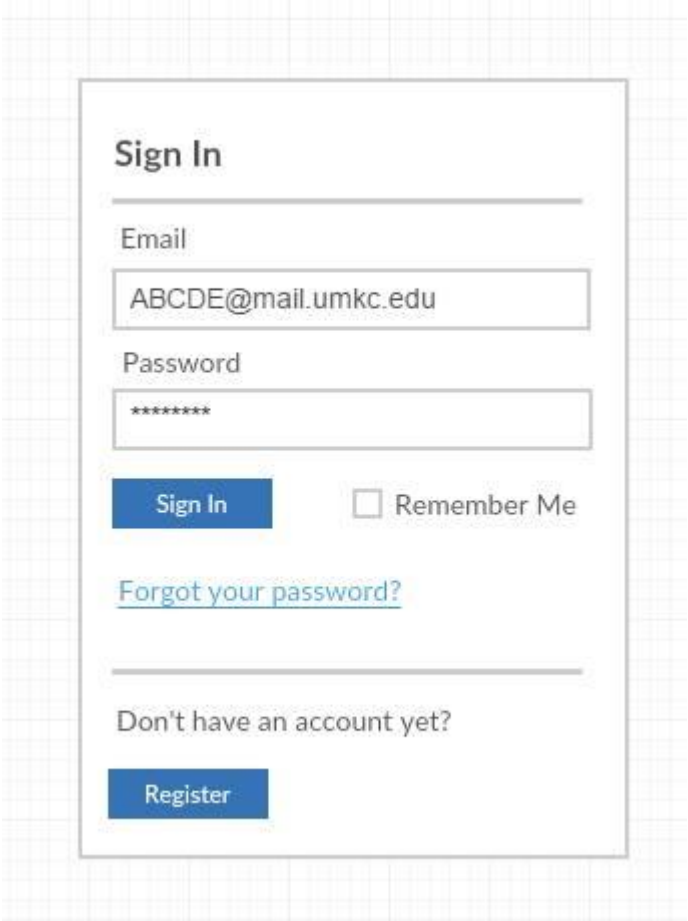
Login UI: Implement Login Activity UI Design
Register UI: I Implement Register Activity UI Design
Home Page UI: Implement Home Page Activity UI Design.

7.0 Wire Frames

7.1 Login Page Wire Frame

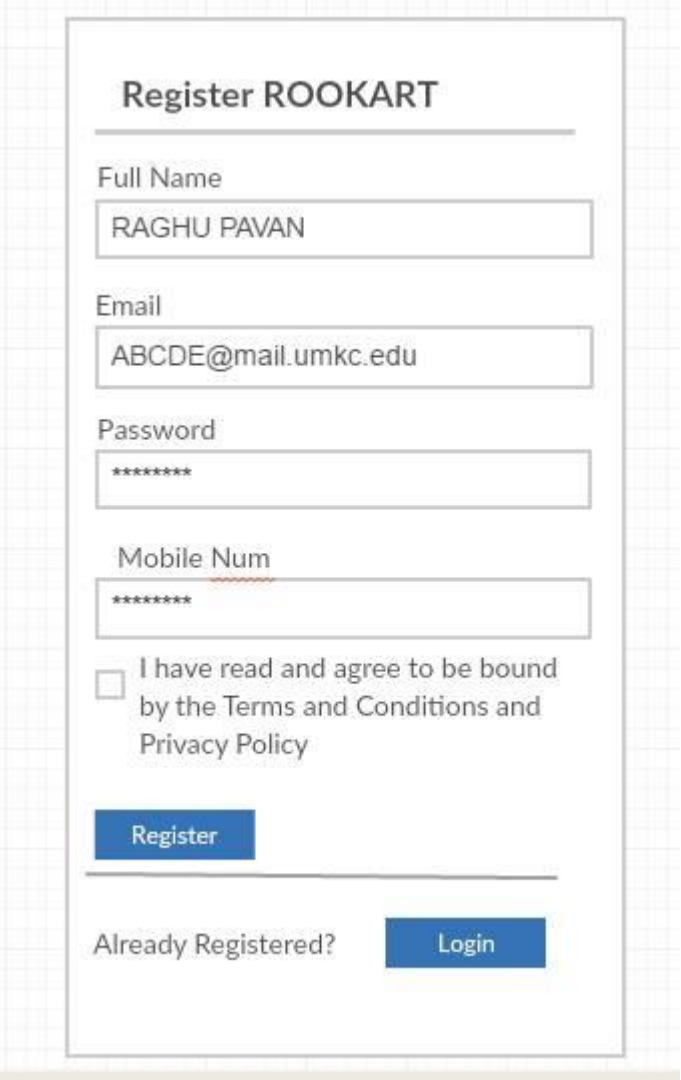
Login page has two buttons, Login and Register. If the user is a new user to Rookart he can register using the Register button

Here is the Login Page Wire Frame.



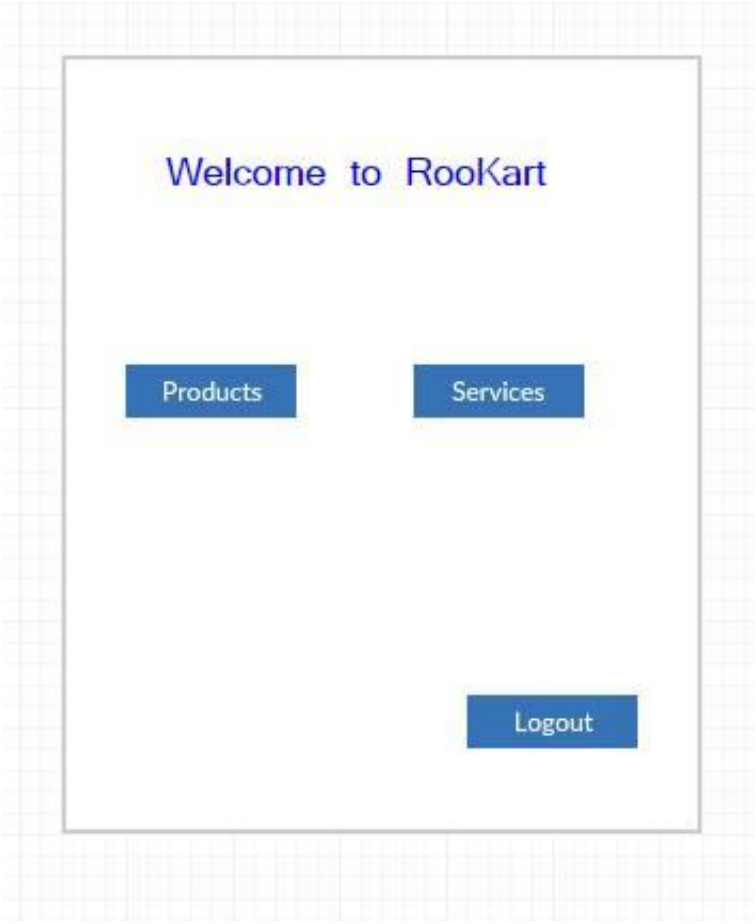
7.2 Registration Page

If the user is a new User he can Register on clicking Register button, Register Page collects the user's personal information such as User Full Name, Email id, Password and Phone Number.



7.3 Home Page

Post the Login, the user is redirected to the Home Page. Home page consists of two buttons, Products and Services.



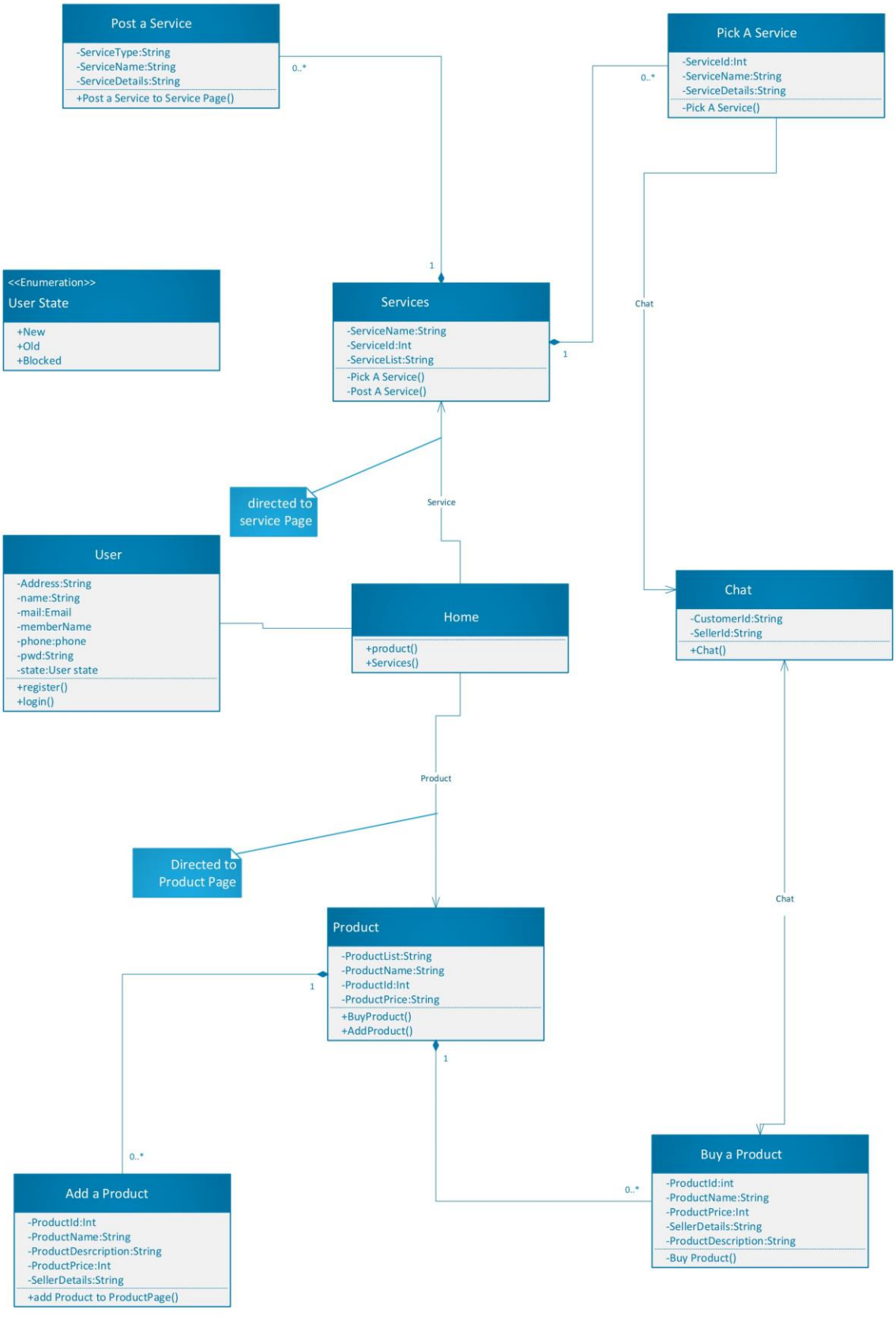
8.0 Class Diagram

The class diagram below describes the flow of the system and process.

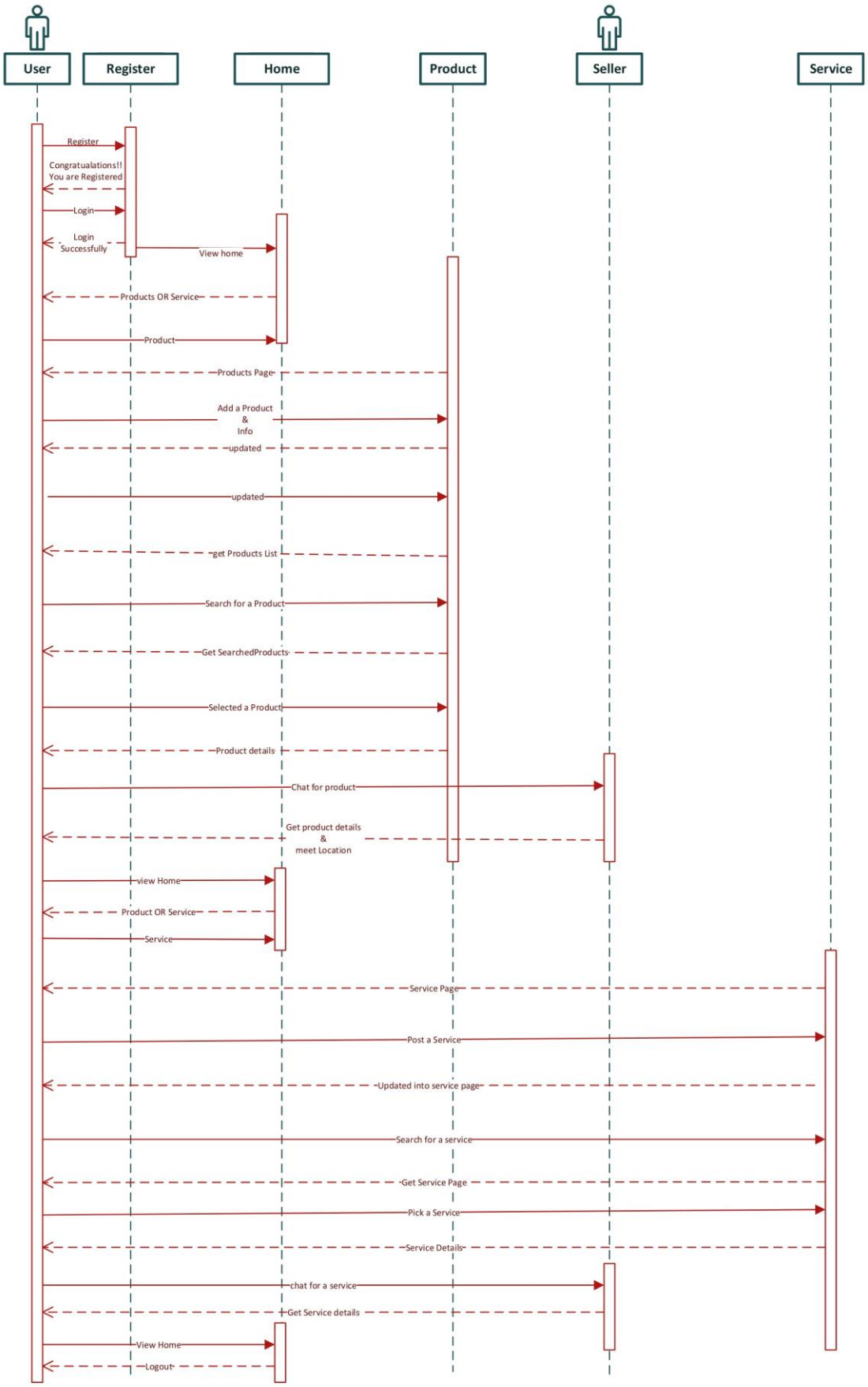
User Class had variables such as User Name, Email, Password, Phone number. These details are used for registration. Post registration user can login using Email and Password. Then the system validates the credentials using Authecation function and redirects the user to Home Page.

On the Home Page, two functionalities are Provided which are Products and Services. User can select one among them at a time. On click functionality is enabled for both and they redirect the user to the respective pages.

Product Page: It consists of two functionalities, Buy a Product, Sell a Product.
Service Page: Post a Service, pick a Service functionalities are provided.

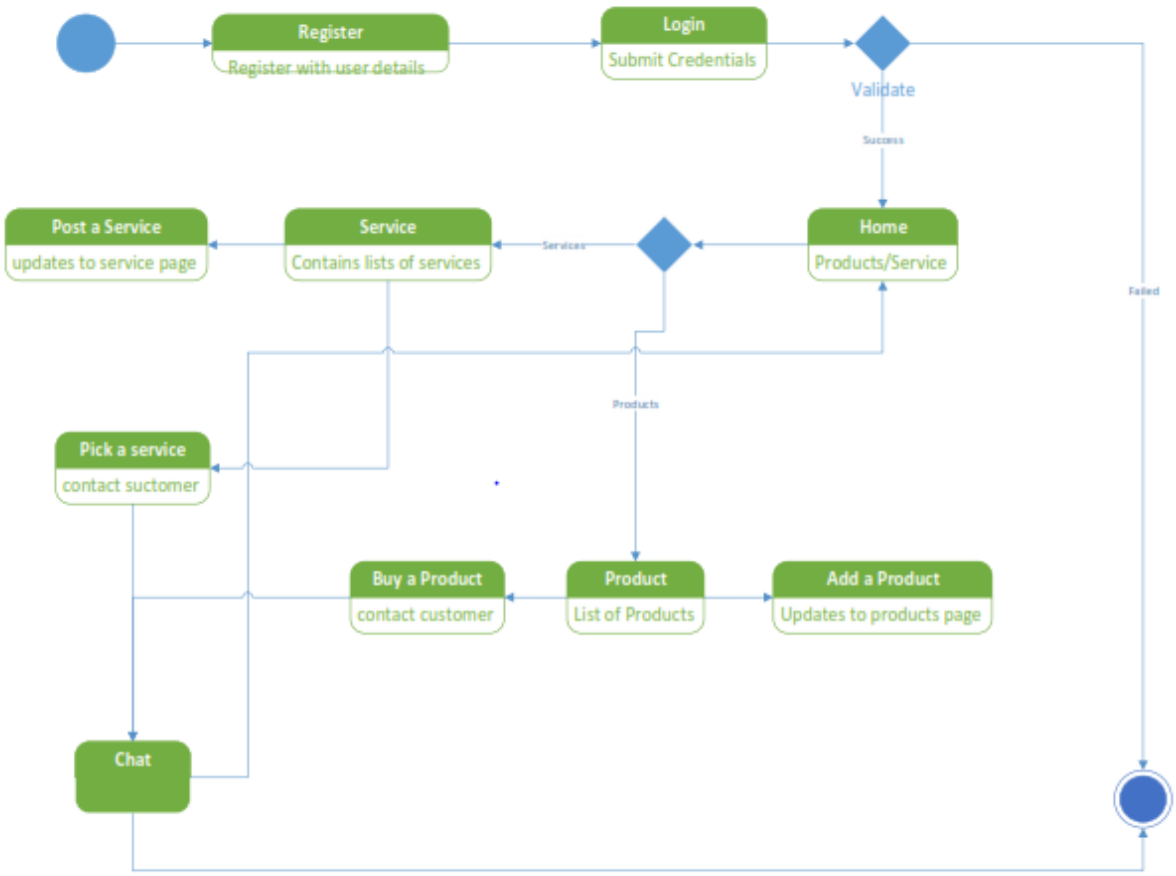


9. Sequence Diagram


User
Register
Home
Product
Seller
Service
Register
Congratualations!! You are Registered
Login
Login Successfully
View home
Products OR Service
Product
Products Page
Add a Product & Info
updated
updated
get Products List
Search for a Product
Get SearchedProducts
Selected a Product
Product details
Chat for product
Get product details & meet Location
view Home
Product OR Service
Service
Service Page
Post a Service
Updated into service page
Search for a service
Get Service Page
Pick a Service
Service Details
chat for a service
Get Service details
View Home
Logout

The above sequence diagram represents the complete process of this project. As the above screenshot shows, the registration process is prior to the login, after registration is completed login function takes place. Upon Successful login the view home function follows.

10. State Diagram



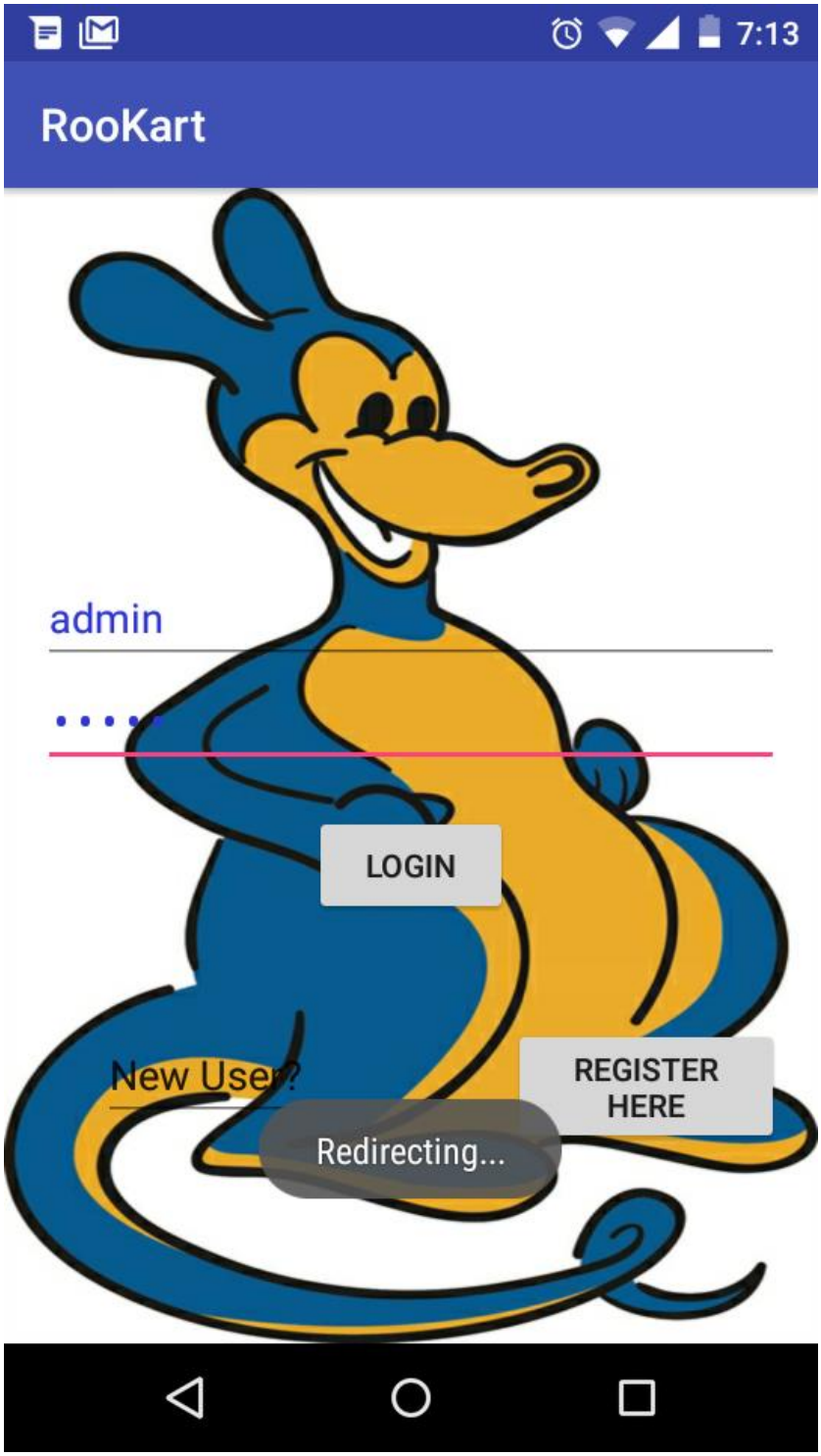
The above screen shot of the State Diagram represents the different states of the application.

Upon Successful Registration, it Navigates to the Login State, after the credentials validation by the authentication function the it redirects to the Home State, upon Selection among the Product or services, user is navigated to the respective Product or services state depending on the state chosen by the user.

11. Layouts

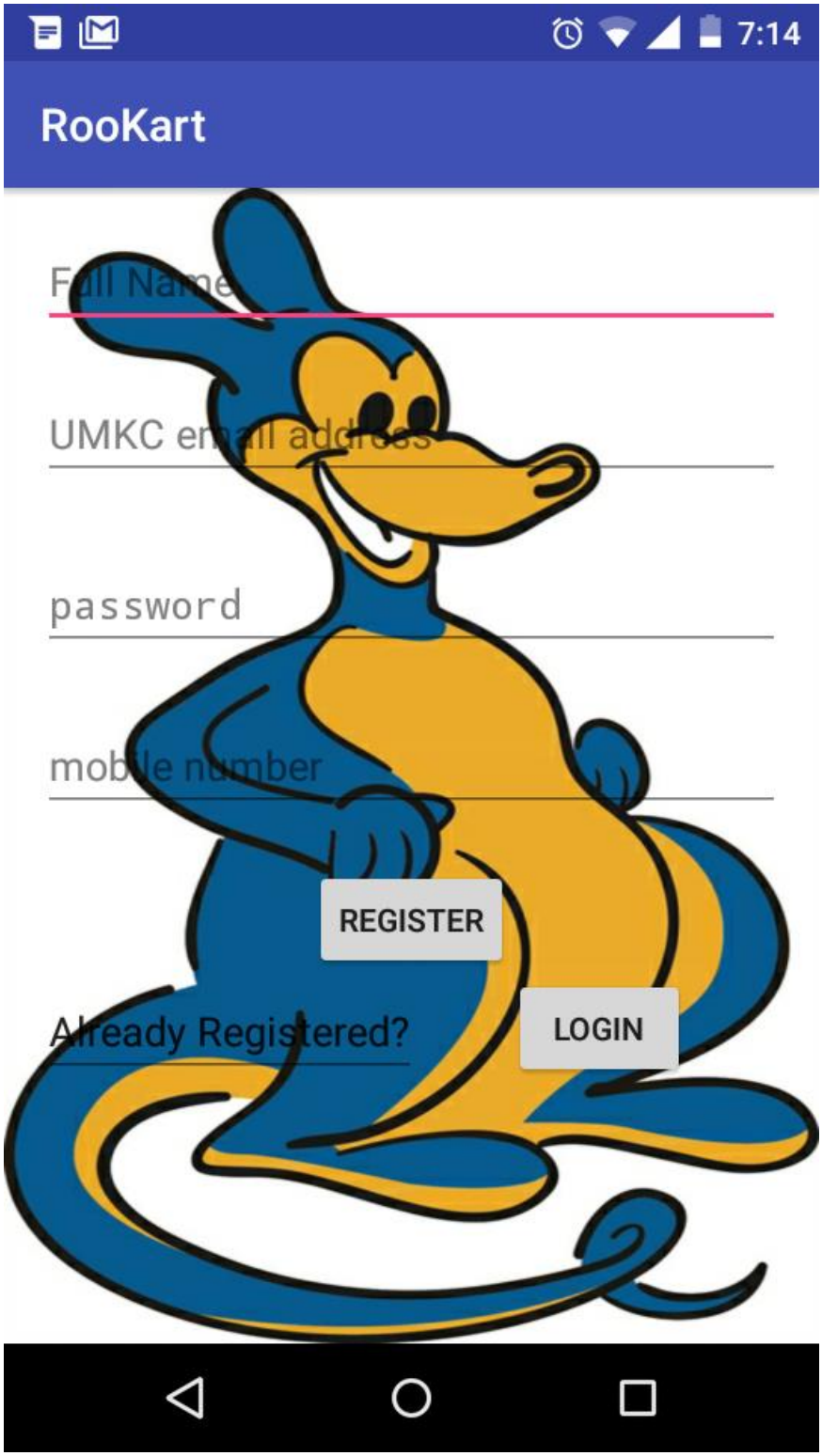
11.1 Login Page

The below screen shot shows the login page after credential validation of the user, with User Name and Password as “admin”.



Register Page:

Register Page ScreenShot.



Home Page:
The below Screen shot shows the Home Page of RooKart application.

12. Project Management

RooKart Project Implementation:

Increment 1:

- Plan the increments to create RooKart Application.
- Finalize & document revised project plan.
- Setup the required tools android studio, zenhub and Github, visio for each of the team members.
- Document the revised project plan.
- Design Wireframes & Mockups.
- Create Architecture diagram.
- Design Sequence & Class diagram.
- Develop the Login, Regristration & basic home screen
- Deploy the RooKart Android app to a mobile device
- Validate the Rookart App for basic functionalities - Login, Register & Home screens.
- Create a wiki page and project report for increment 1.

Increment 2:

- Validate & authenticate the users during registration.
- Setup local databases for the application.
- Implement the functionality for the user to add products that they want to sell.
- Implement the browse functionality for buying the products using search/view options.
- Validate the product buy, sell and browse functionalities.

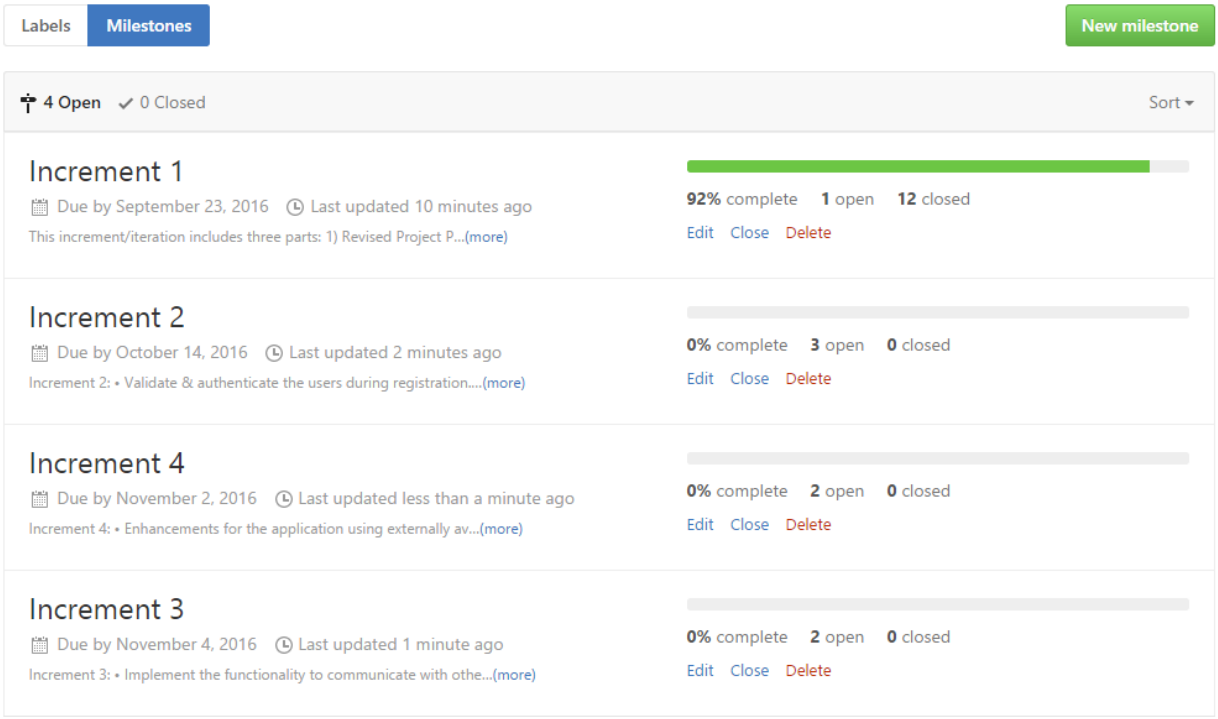
Increment 3:

- Implement the functionality to communicate with other users for selling the product over messages/ call through the application.
- Functionality for the user for posting classified ads and services they wish to offer along with description and pricing specifications.
- Validate the user communication functionality.
- Validate the RooKart services functionality.

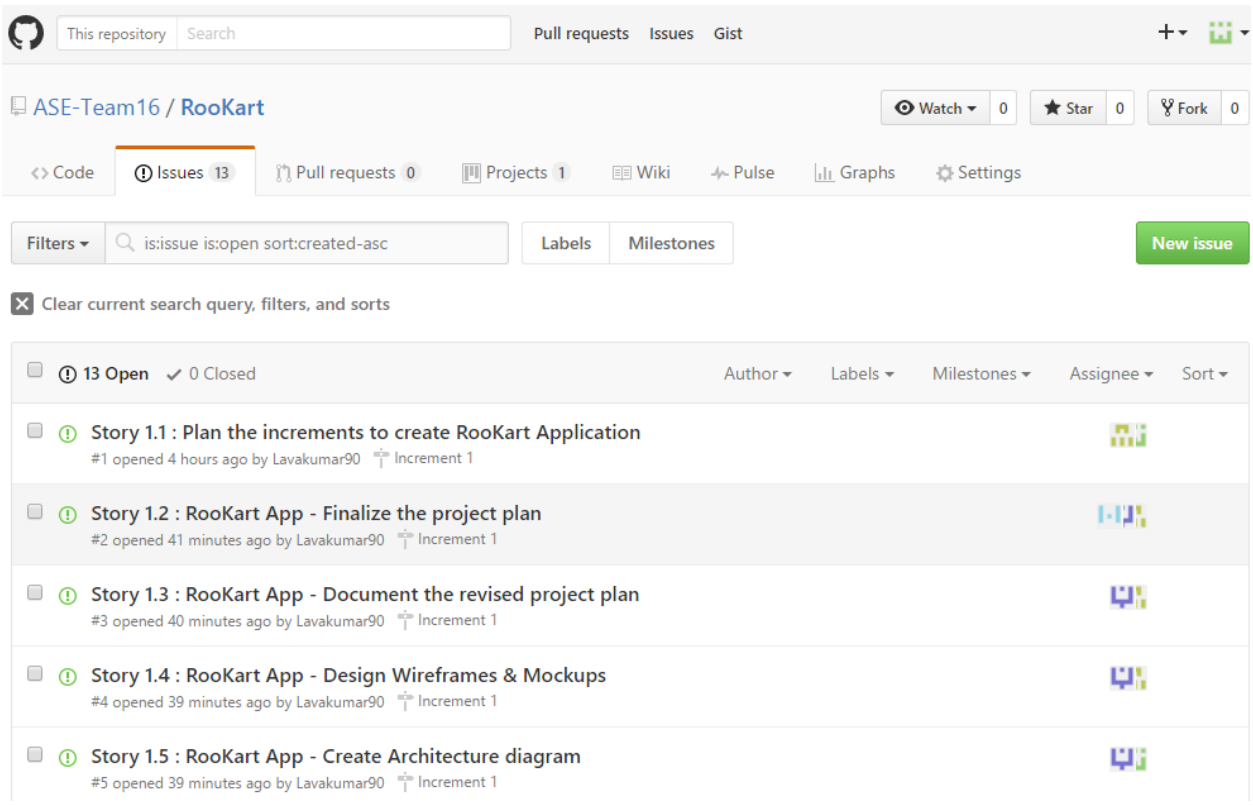
Increment 4:

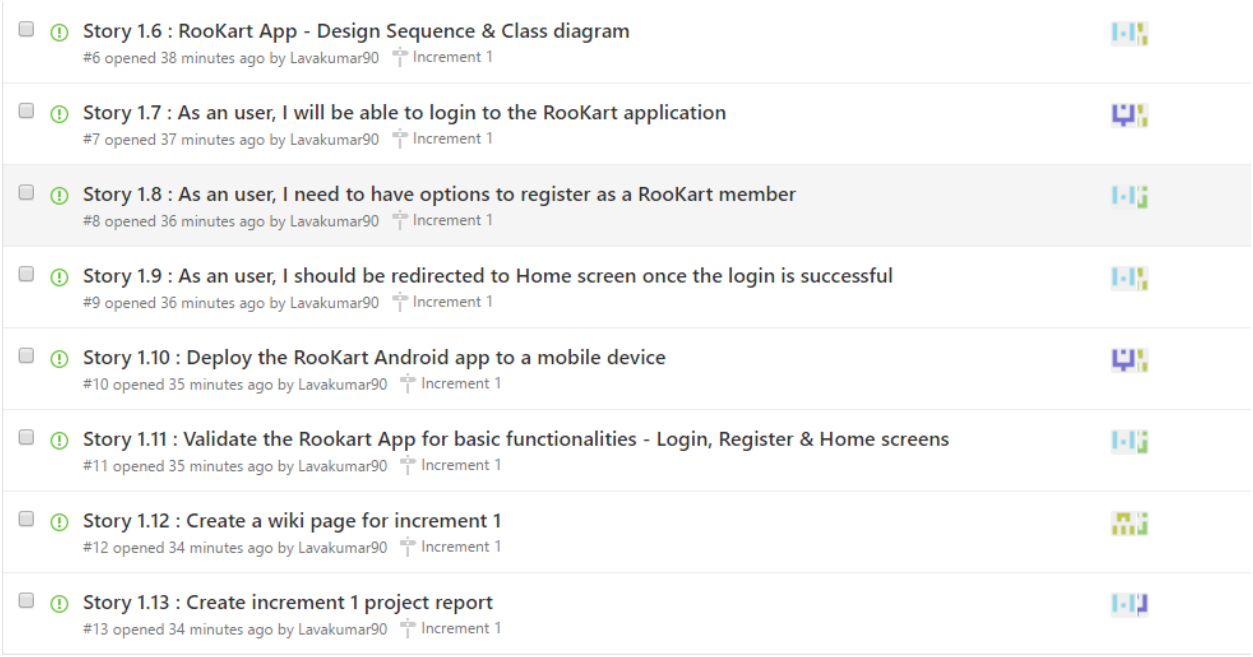
- Enhancements for the application using externally available API's.
- Refine the GUI for RooKart buy/sell & service functionalities.
- Deploy and validate the entire RooKart Application

Increment Milestones:

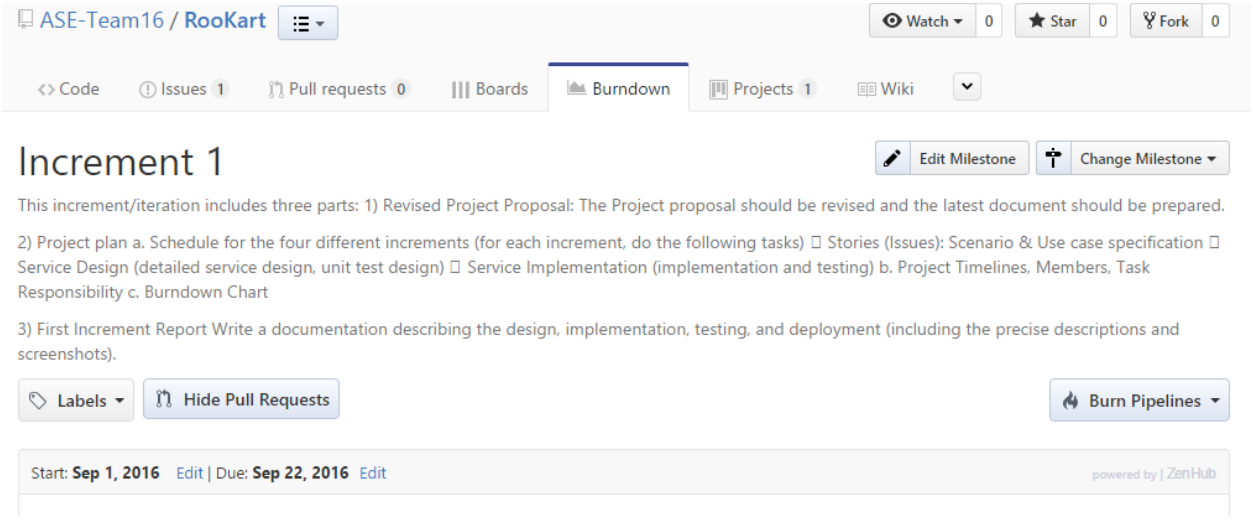


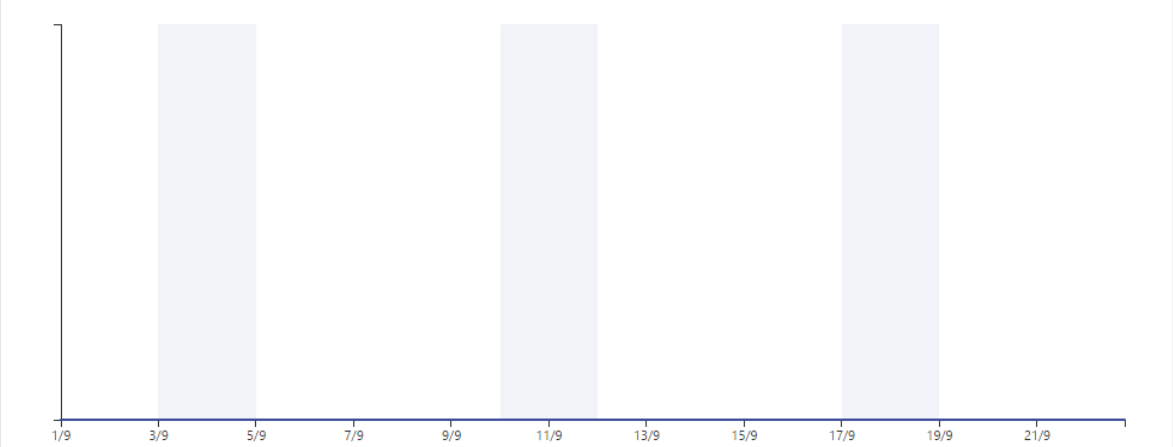
Increment 1 - User Stoies:





Burn down Chart





70	65	13	0
Total Story Points	Completed Story Points	Total Issues	Unestimated Issues

Increment 1

Repository	Issues	Story Points
RooKart	#13 Story 1.13 : Create increment 1 project report	5
RooKart	#6 Story 1.6 : RooKart App - Design Sequence & Class diagram	8
RooKart	#4 Story 1.4 : RooKart App - Design Wireframes & Mockups	8
RooKart	#1 Story 1.1 : Plan the increments to create RooKart Application	8
RooKart	#11 Story 1.11 : Validate the Rookart App for basic functionalities - Login, Register & Home screens	5
RooKart	#10 Story 1.10 : Deploy the RooKart Android app to a mobile device	5
RooKart	#9 Story 1.9 : As an user, I should be redirected to Home screen once the login is successful	5
RooKart	#8 Story 1.8 : As an user, I need to have options to register as a RooKart member	5
RooKart	#7 Story 1.7 : As an user, I will be able to login to the RooKart application	5
RooKart	#3 Story 1.3 : RooKart App - Document the revised project plan	5
RooKart	#2 Story 1.2 : RooKart App - Finalize the project plan	5
RooKart	#12 Story 1.12 : Create a wiki page for increment 1	3
RooKart	#5 Story 1.5 : RooKart App - Create Architecture diagram	3

Please refer to the below link to find the same on Github.

https://github.com/ASE-Team16/RooKart/tree/master/Increment%201/Documentation

13. Bibliography

1. www.github.com
2. www.developer.google.com
3. www.developer.android.com
4. www.umkc.edu