CS551 Advance Software Engineering FINAL PROJECT REPORT

Newbie's Key

Group#13



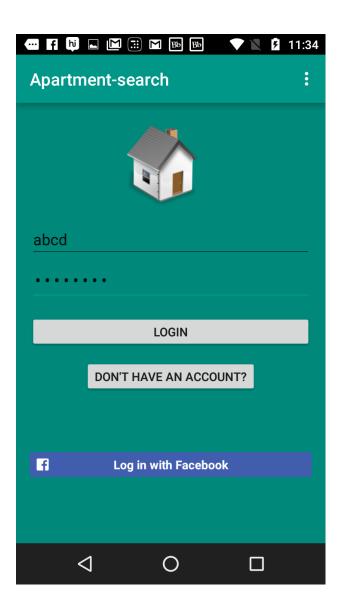
Sri Harsha Kumar Raja Golla(15)
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Project Deployment:

USER MANUAL FOR APARTMENT SEARCH

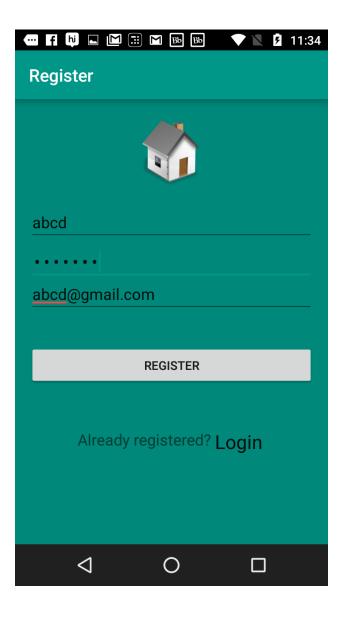
Login Page

In this page user, can login using his credentials or create a new account clicking on **Don't Have an Account** button. This will redirect to the registration page and user must abide with all the validations so the account can be created successfully.



Registration Page

Here in this page user must enter the user name, password and the e-mail address and click on login. Once all the validations are done on these fields and are correct the user profile will be created.

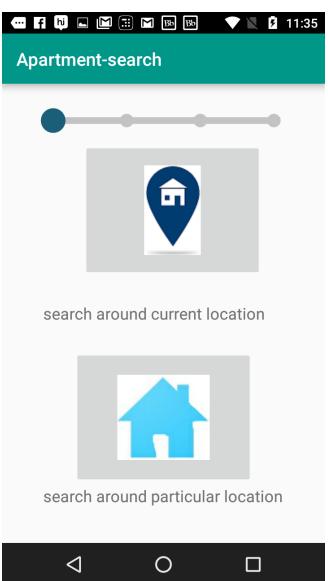


Home Page User Manual

When you have logged in successfully, you will be redirected to the home page of our application. This consists of two modules.

- 1) Search around current location and
- 2) Search around location.

When you click on the first module, you will be redirected to a Google maps page where your current location is marked by a pin marker. Then when the page is fully loaded, you can see the vacant houses near your area within 10-mile radius. You can click on the house icon to see a brief description. If you want to view all these details in a list view, click on the button "list view".



When you click on the second module, you will be redirected to a Google maps page where there is a search bar. There you can enter a location of your choice where you want to search the vacancies. Enter the location and hit "search" button. The vacant apartments in that area are loaded on the page. And if you want to see the details in the list view, you can click on the "list view" button.

Maps Page

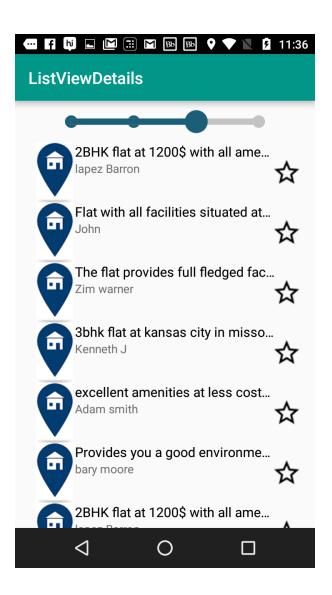


List View Details

Here in this screen you can see all the details of the selected area results in a list view. These are the top 10 results in that area. You can find the price of the apartment and if you find something interesting you can click on the result and it redirects to the next page.

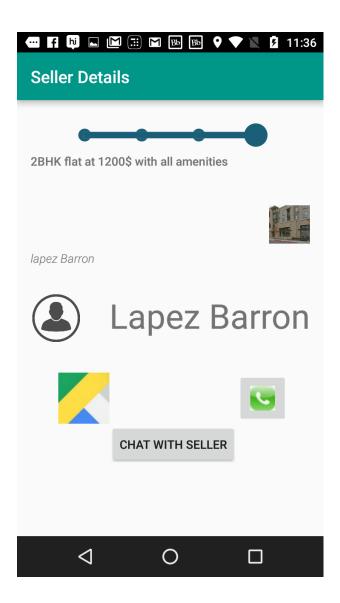
You can find the following

- Apartment Name
- Cost of the Apartment



Seller Details

Once User clicks on his desired location it redirects to the owner details page where User gets to know all the details of the apartment. Here it contains the photo of the apartment and communication details. User can directly call the owner from this screen. User can also chat with the seller and negotiate the price and make an agreement at the spot.



• PROJECT PROPOSAL

Project Goal and Objectives

Motivation:

Imagine when you first check in a new place and you have no idea of what is going around. One doesn't know where tom live in and if the selected place is a safety one or not. And so as to overcome these hardships we have an idea of creating an app for renting Apartments. This will be a feasible solution for both the owners and the tenants.

Significance/Uniqueness:

Here both the Owner and Tenant creates their accounts and the owner can add the details of the apartments including the media like photos and videos of the location. Once the user clicks on the search button there will be 2 options available for view i.e. map view as well as a list view. Tenant can get the details of the apartments in a specific radius and if he finds any apartment interesting he/she can contact the owner from there. Tenant can also invite the owner to chat and get further details on the same. Once he/she likes the apartment a deal can be made and the same can be visualized in the app.

Objectives:

To make it a hassle-free experience for every new comer to any new location and helping them to find a perfect place to live, encouraging and letting them to take part in all the activities happening around them.

System Features:

☐ Push Notifications
☐ Real Time Event Creation
☐ Maps Direction
☐ Peer-Peer chat messaging
☐ Room Availability Info

• FIRST INCREMENT

As a part of our project's 1st increment we have implemented the Login page, a register page and on successful login redirects to the Home page. At first a new user needs to register and can login using his name email and the password. Here we will be using the Apartment search API to get the details of the vacant apartments that are ready to be occupied by the tenants in a area.

Features:

- 1. Apartment Availability: Tenant can login the app and then filter his own interests and search for the vacant rooms available in the preferred location. In short to be straight to the point he can do a personalized search.
- 2. Push Notification: Once the user sets his own preferences in case if there is any new apartment details added to the system there will be a push notification sent to all the users falling under that category.
- 3. Map Locations: We are integrating the maps within the app so that the user can view the exact location on the maps and locate the vacant apartments nearby.
- 4. Real Time Event Creation: When a user searches a particular query and in parallel if an owner adds a new apartment details it reflects in the search result of the user.
- 5. Peer-Peer chat messaging: In this application owner and the Tenant can chat with each other in real time and get the things sorted and make a deal.

Service Description

- 1. Maps: Maps information is displayed using the Google Maps API which gives us the information about the houses in a locality
- 2. Apartment Search: The information related to the apartments are obtained by using the Apartment search API.
- 3. Locations: To get the auto locations fill we will be using the Auto Location fill API

• SECOND INCREMENT

As a part of second increment we have implemented the OAuth login using Facebook login and we have created a logic where the user once logged is redirected to a search page where he will be able to see his present location and a click on search button takes him to the maps where he can search his desired location and get the available apartments on the map as markers.

Features:

<u>AutoFill Places:</u> When the user tries to enter the location in the search bar he will get a dropdown list with all the values related to the substring he already entered.

OAuth Login: For the ease of login for the users we have included the Facebook login on our Login page so that would be convenient and time saving process for new users.

<u>Location View</u>: Once User logs in, he will be able to see his current location on the home page which also consists of available apartments for lease near his location.

Service Description

<u>Search</u>: We have included the Google maps API for retrieving the current location of user.

<u>Facebook Login</u>: We have used Facebook API to integrate it into login page.

Autosuggest: We have used the Auto Complete API to give suggestions

Apartments: We have used Zillow API to produce the results for our apartment search

• THIRD INCREMENT

We have integrated backend to required screens and created a few pages which are stated below

Fire Base Connection:

We have now connected the Login page with our Firebase account which stores the login values of the new users registered and in case if it finds a new data it states the user to register and then login.

Search Results in List View:

In the previous increment, we have implemented the results on the map and now we have created a screen that shows the list view of the available apartments.

List View to Further Details:

Now from the list view if a user needs to get further details he/she can click on the desired apartment result and this takes him to another page with all the owner contact details.

Call Facility:

Once the user is on the further details screen he/she can directly contact the Owner through a phone call as we have now included the call facility on this screen.

Chat Screen:

If the user needs to interact with the Owner, he can directly ping him a message and there will be a chat option available that allows a peaceful conversation between the tenant and the Owners.

Tasks yet to be completed:

- Progress Bar
- UI Improvisations

• FOURTH INCREMENT

Report:

We have implemented some changes and improved efficiency of previously build pages

Login and Register Page:

We have improved the efficiency of the Login Page and the Register page by adding validations to all the input parameters.

MongoDB:

We have used the firebase login in our previous attempt but now we have moved from this to MongoDB. All the Login details as well the owner details are stored and retrieved from MongoDB.

Chat Screen Enhancement:

We have improved the look and feel of the chat window.

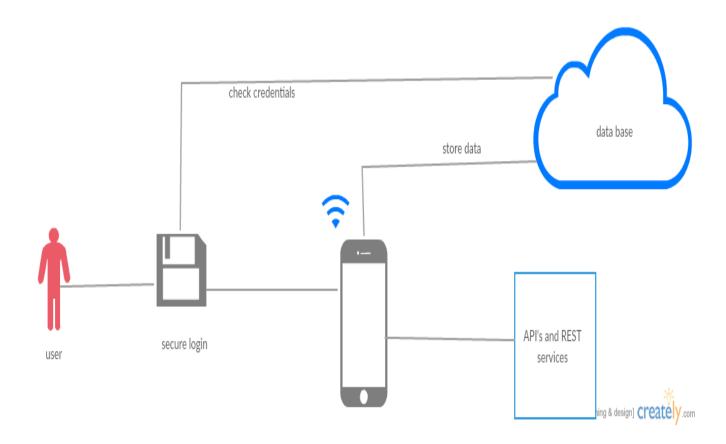
Progress Bar:

We have included a progress bar which increments with every screen you change. One interesting feature is that we can switch between screens using this progress bar.

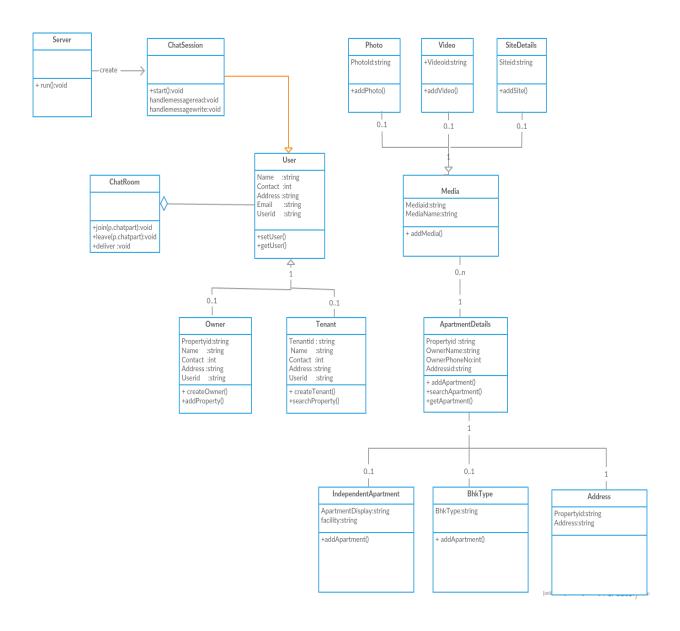
UI Improvements:

We have made many User Interface improvement for every screen and to make our application feel good.

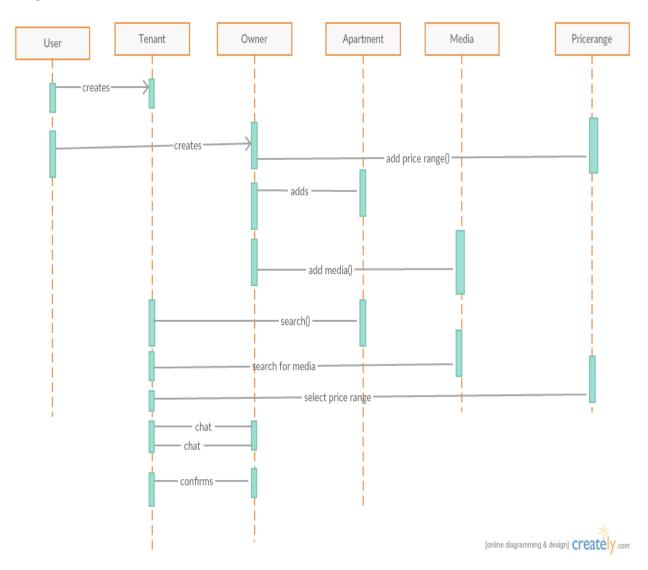
ARCHITECTURE DIAGRAM:



CLASS DIAGRAM:



SEQUENCE DIAGRAM:



WIREFRAMES:

LOGIN PAGE

UMKC HUB
enter username
enter password
SIGN IN
or new user?
REGISTER

REGISTER PAGE



ADD APARTMENT PAGE



TENANT SERACH PAGE:

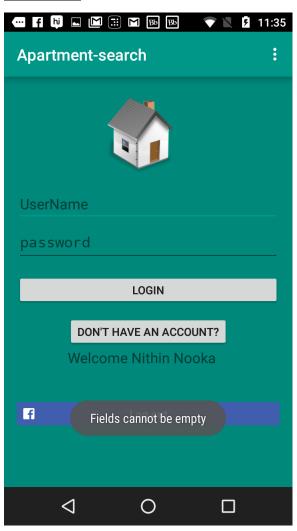


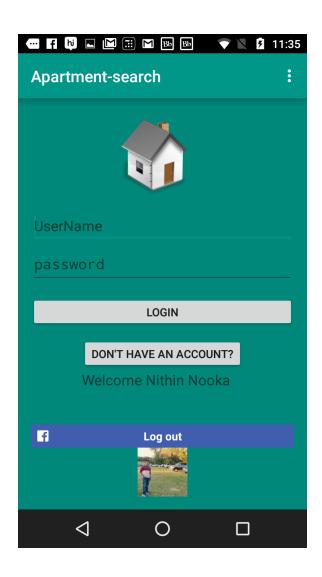
DETAILS OF A PARTICULAR PROPERTY PAGE:

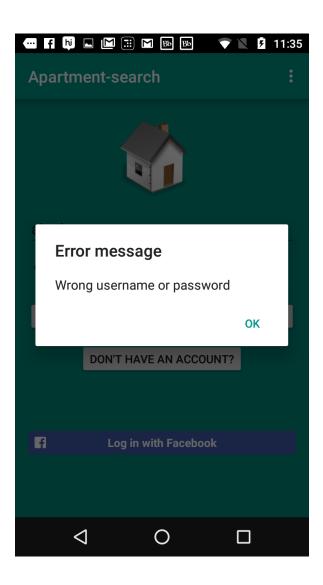


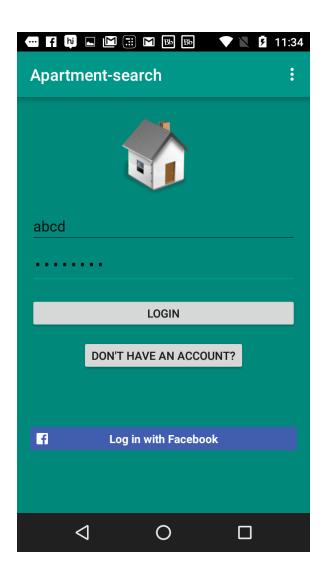
• Final Screenshots

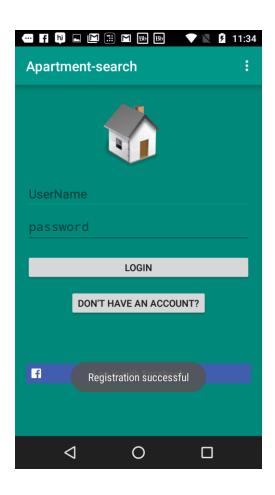
Login Page

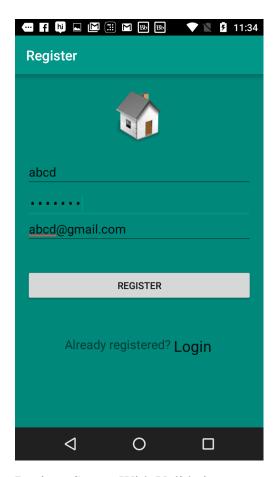




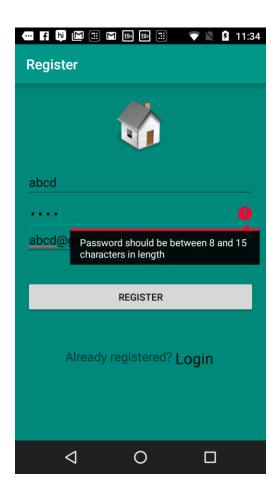




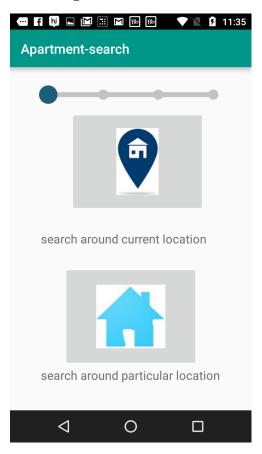




Register Screen With Validations

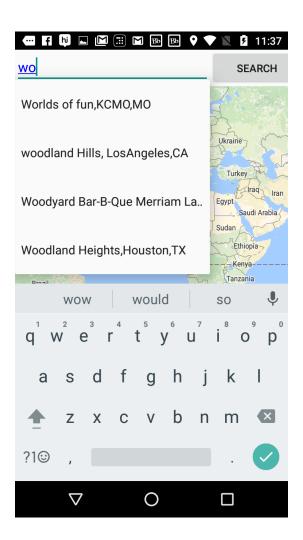


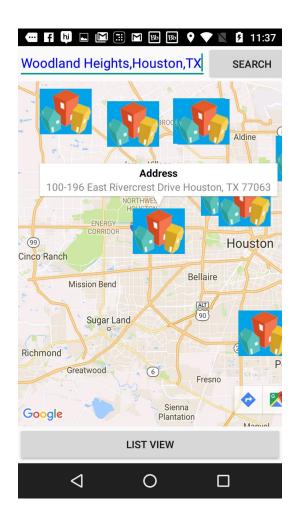
Home Page

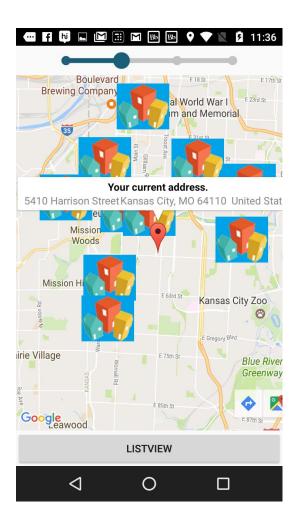


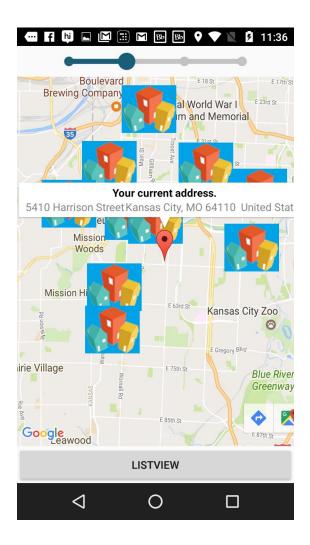
Maps View Page



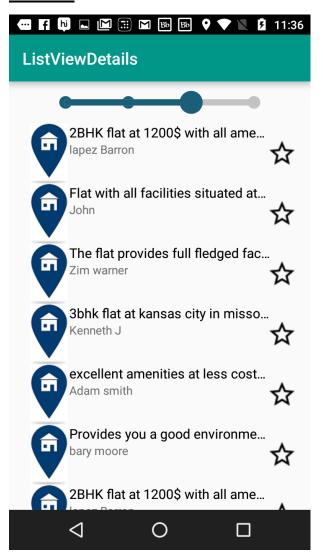




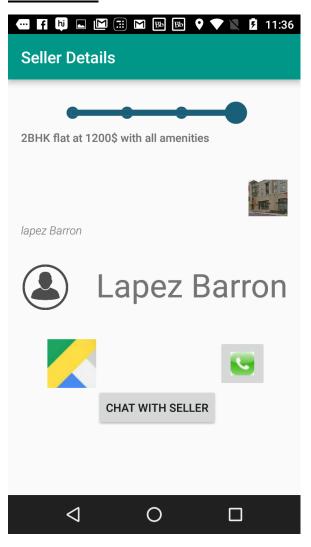




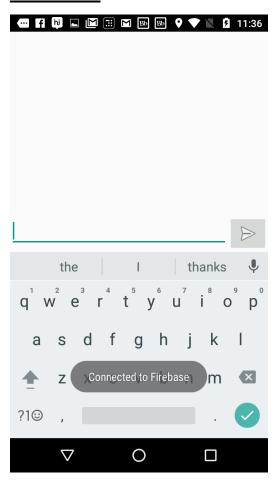
List View

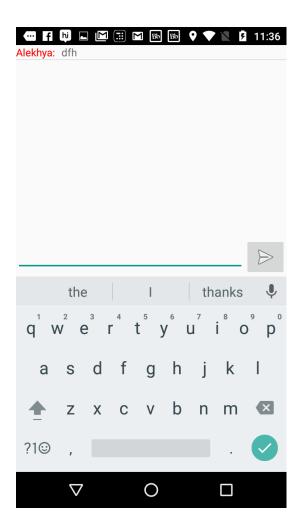


Seller Details

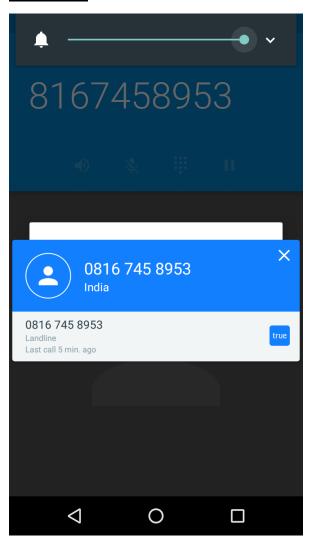


Chat Screens





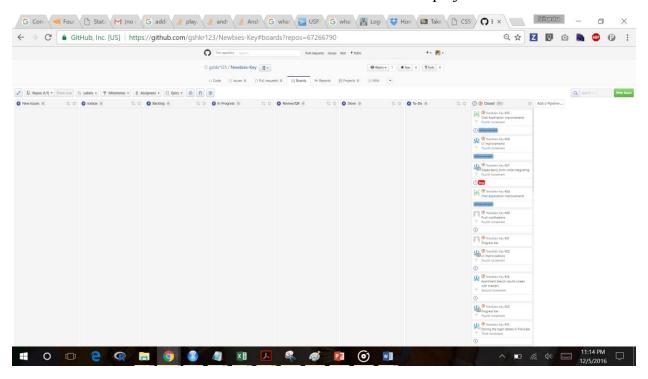
Call Screen

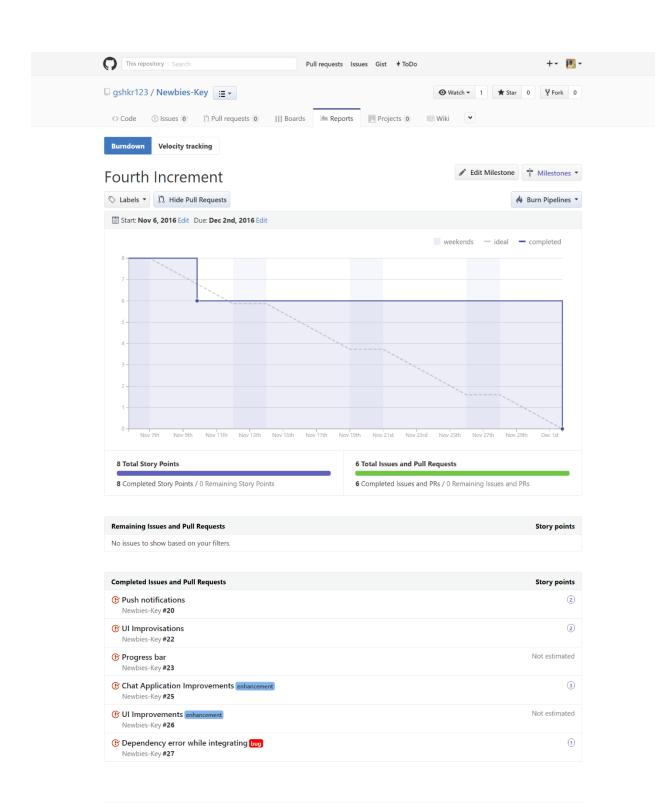


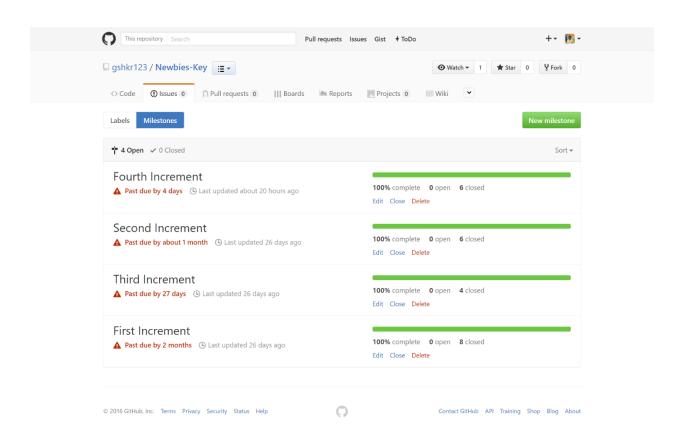
• PROJECT MANAGEMENT:

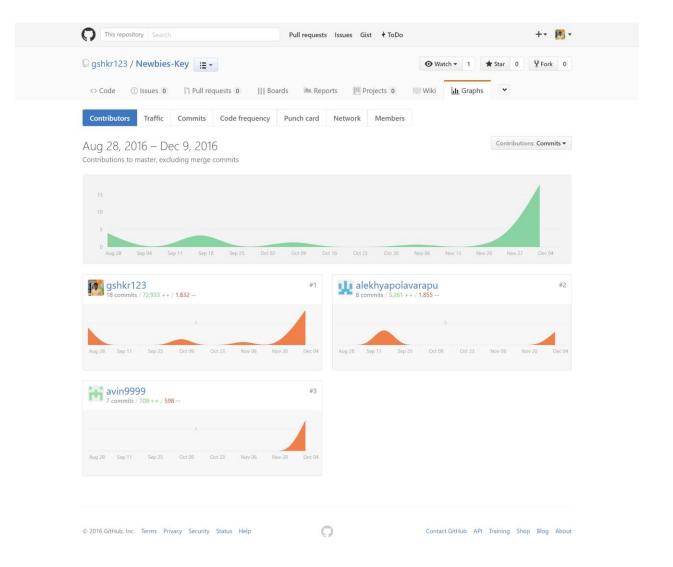
We have used GitHub for our project version control and we have progressed our project through this.

Below are the screen shots of all the issues and increments in our project









• Presentation Slides

https://github.com/gshkr123/Newbies-

Key/blob/master/Documentation/Apartment%20Search_Final%20PPT.pptx

GitHub URL

https://github.com/gshkr123/Newbies-Key

• YouTube Video

https://github.com/gshkr123/Newbies-Key