FIRST INCREMENT REPORT

ADVANCE SOFTWARE ENGINEERING

TEAM ID : 6

Introduction:

Our project consists of AR Engine and API Engines. These Engines recognizes the operations required in the image, calculates the result and displays it on the screen of the mobile phone.

Project Goal and Objectives (revised):

The primary objective of this project is to do basic Arithmetic operations, simple Geometric and Trignometric functions in smart phones using AR Technologies.

The features consist of integrating an API Engine which is used for recognition of hand writing and for calculating mathematical expressions. It also includes AR Engine with camera integration for taking and detecting image and to display the output.

The significance of this project is to allow students to learn advanced digital data of any subject and make complex data simpler to get it. Capacity to associate reality and computerized content has been gradually expanding, opening

increasingly and propel choices for instructors and students. Understudies can get models on their own gadgets and by means of Augment’s application. By viewing enlarged models, the understudies can pick up a superior comprehension of the ideas they are examing.

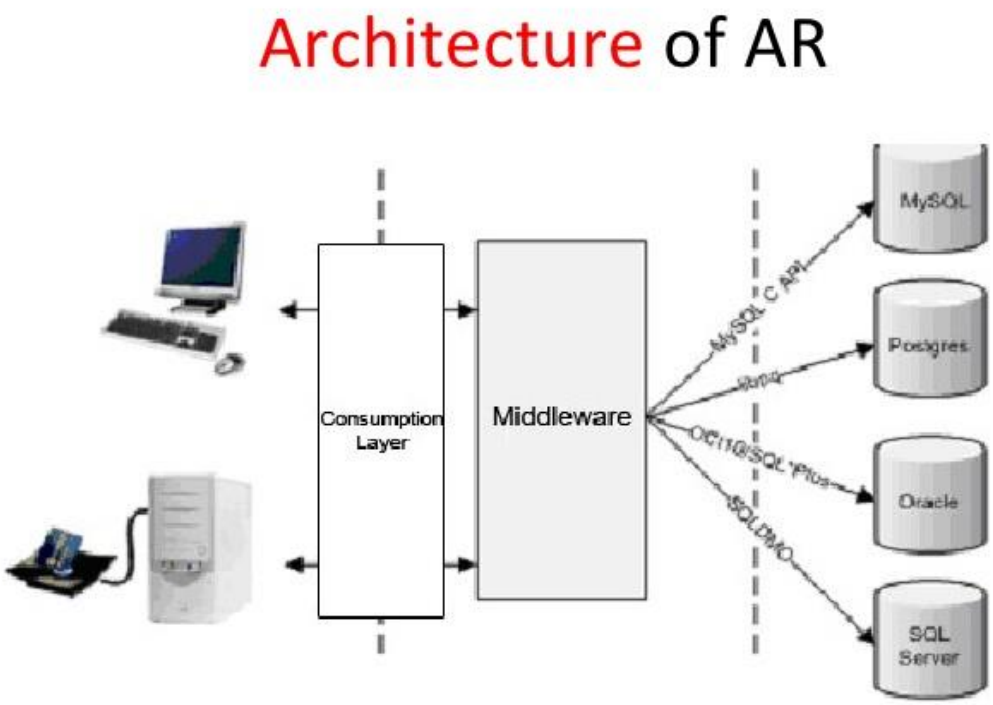
Project Plan :

Use case Scenarios

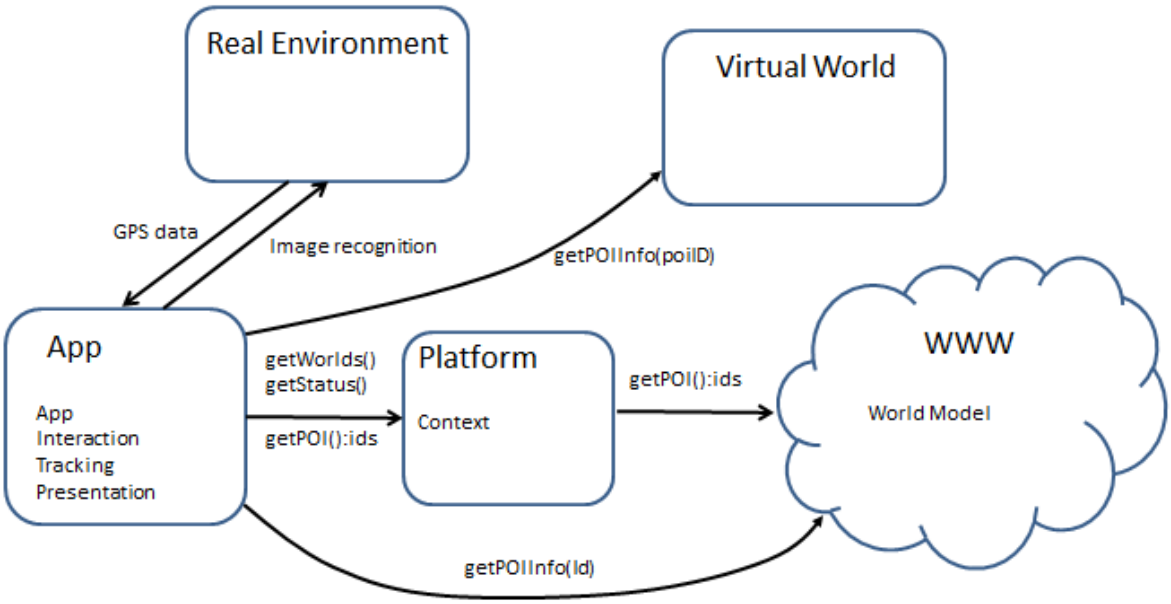
1. Authentication and Authorization
The user logs into the application

Precondition:
1) If the user is an existing one, he may continue to login or else he has to register first and then login.
2)A new user can use OAuth Login Service.
Description
1. This use case begins when a user opens up the application and is not logged in.
2. The user is prompted to enter a email id and password.
3. If the user's credentials are authenticated, the use case ends in success with the user reaching the application's functions.

Service Design :



Service Implementation :



Member's Contribution :

Member 1 : Sri Ram

Task : Login Activity

Percentage : 25%

Member 2 : Rajiv Varma

Task : Registration Activity

Percentage : 25%

Member 3 : Sandeep NLNS

Task : Facebook OAuth Login

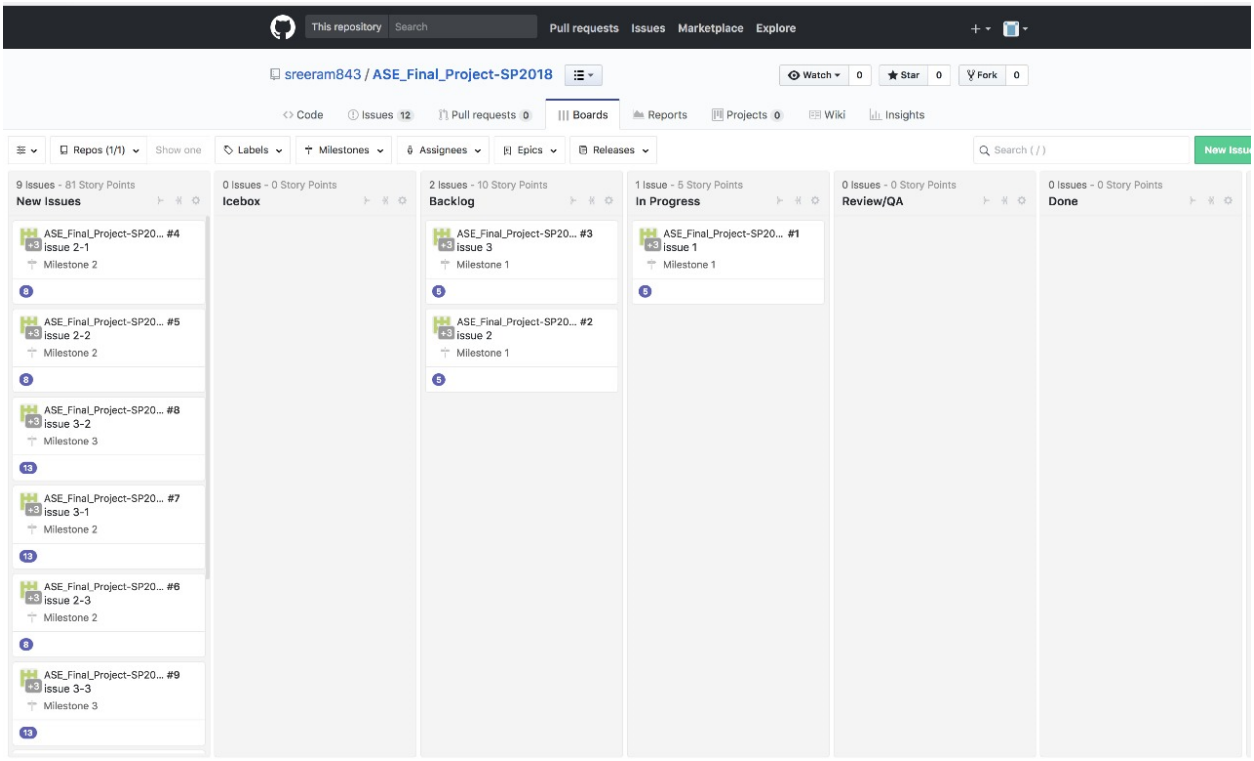
Percentage : 25%

Member 4 : Sireesha Pandala

Task :Google OAuth login

Percentage : 25%

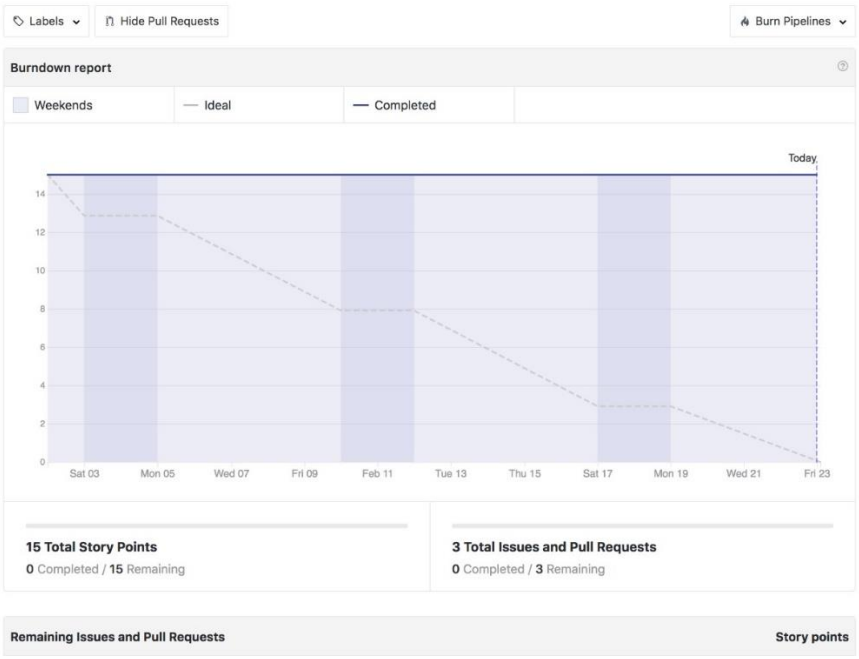
The burndown charts showing the stories and time estimate for each iteration are as follows



Iteration 1

Milestone 1

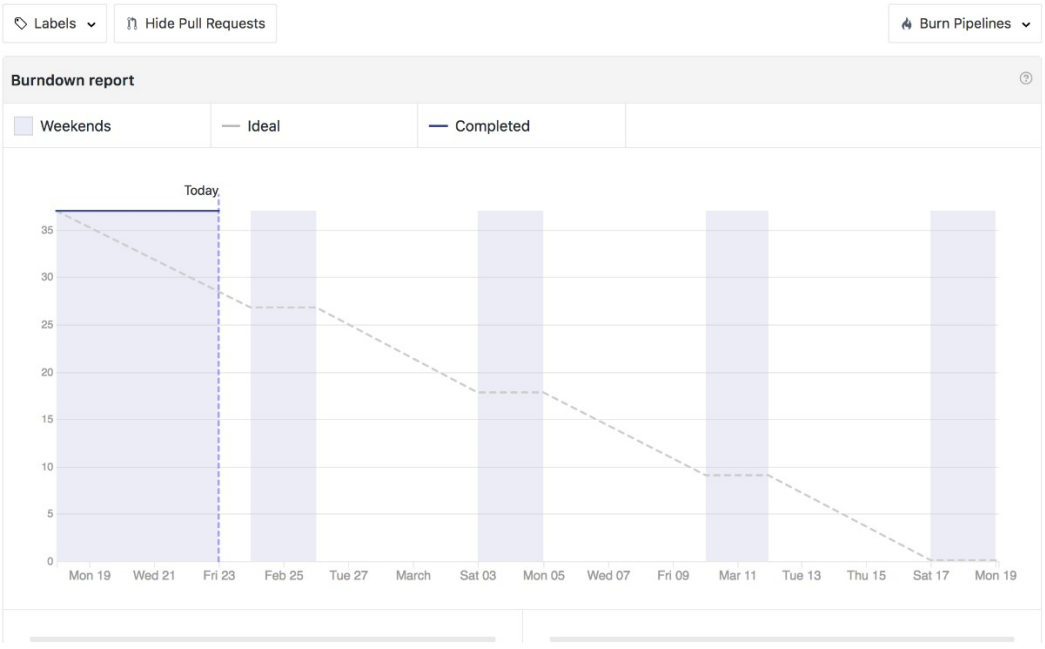
Start: **Feb 2, 2018** Change Due: **Feb 23, 2018** Change



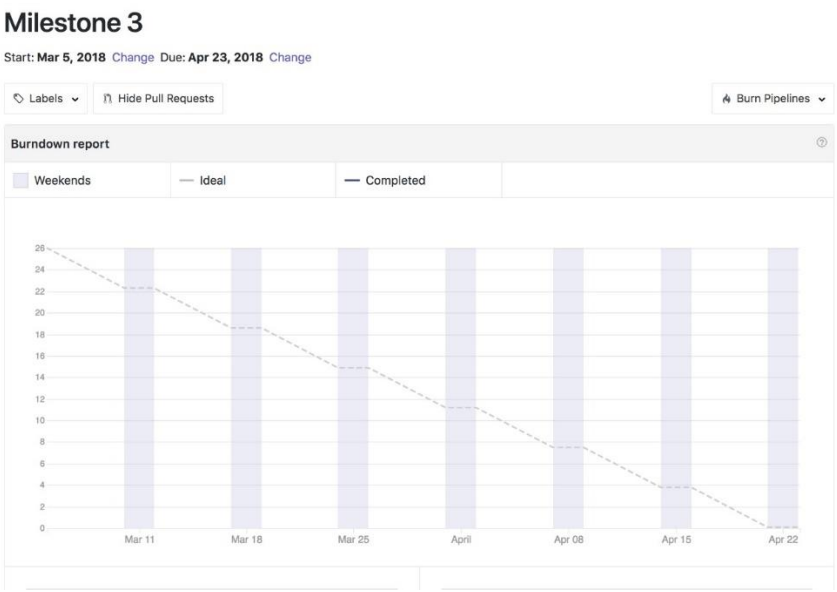
Iteration 2

Milestone 2

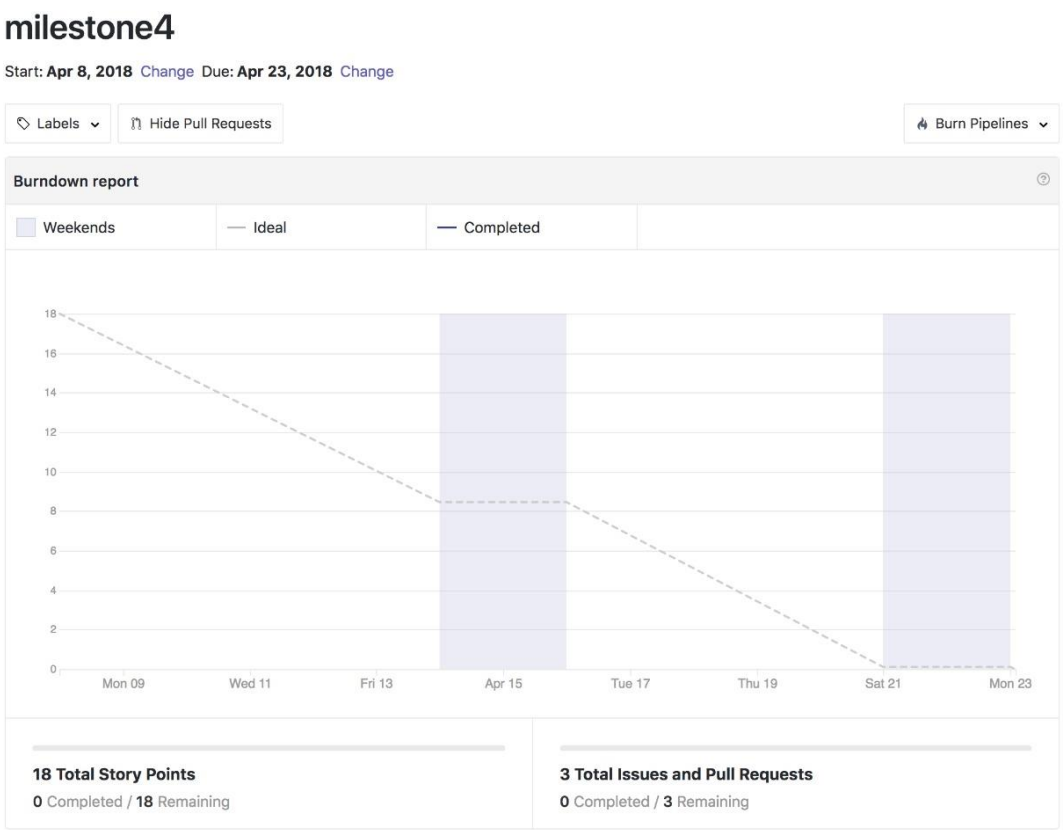
Start: **Feb 18, 2018** Change Due: **Mar 19, 2018** Change



Iteration 3



Iteration 4



List of APIS :

1) Facebook mobile sdk - api
2). Google Plus api

Detailed Design of Features

Wireframes

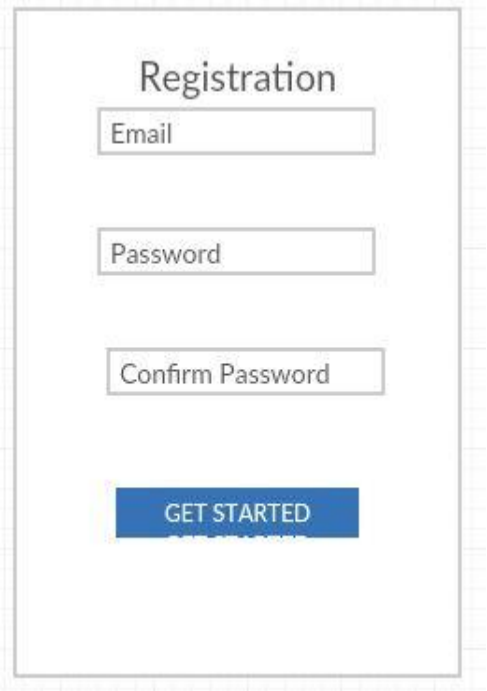


Figure 1: Register Activity

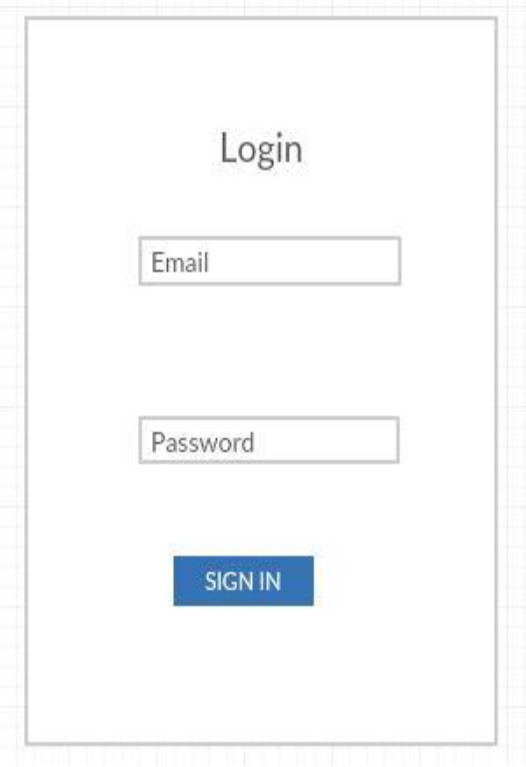
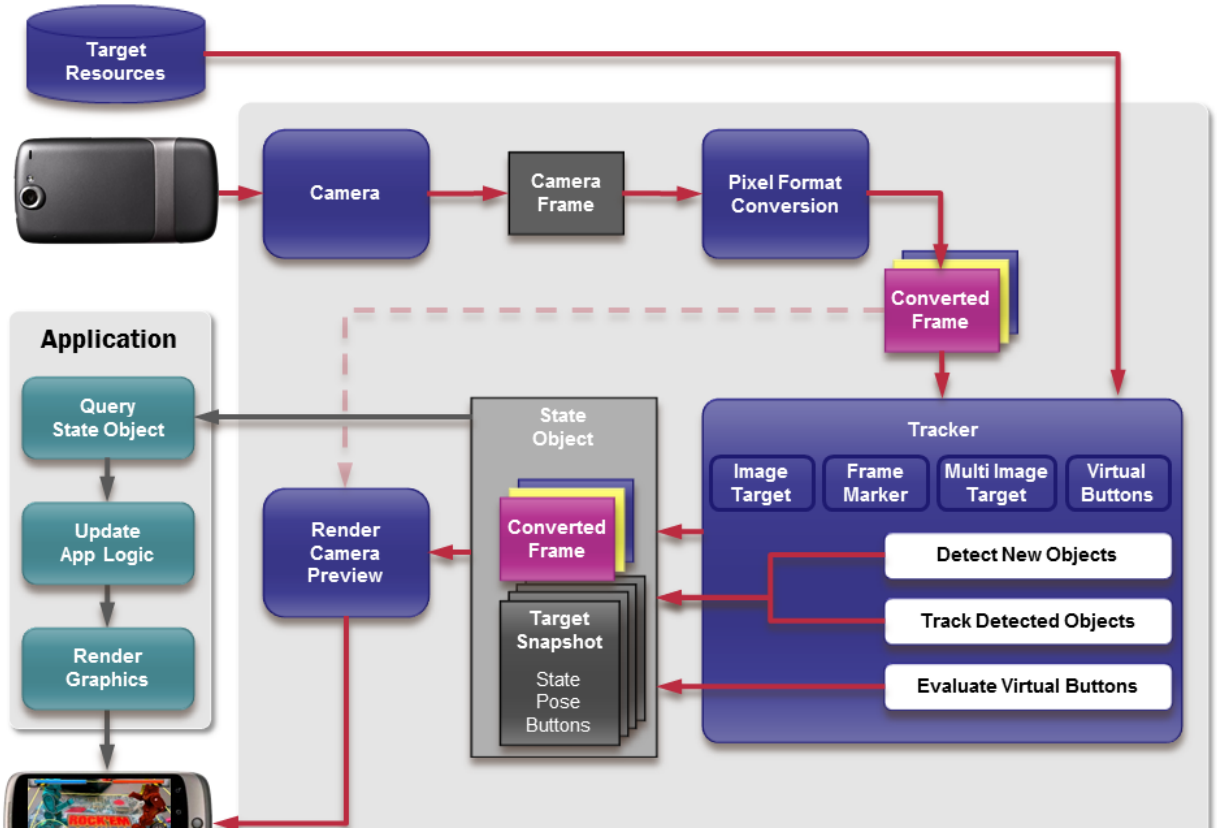


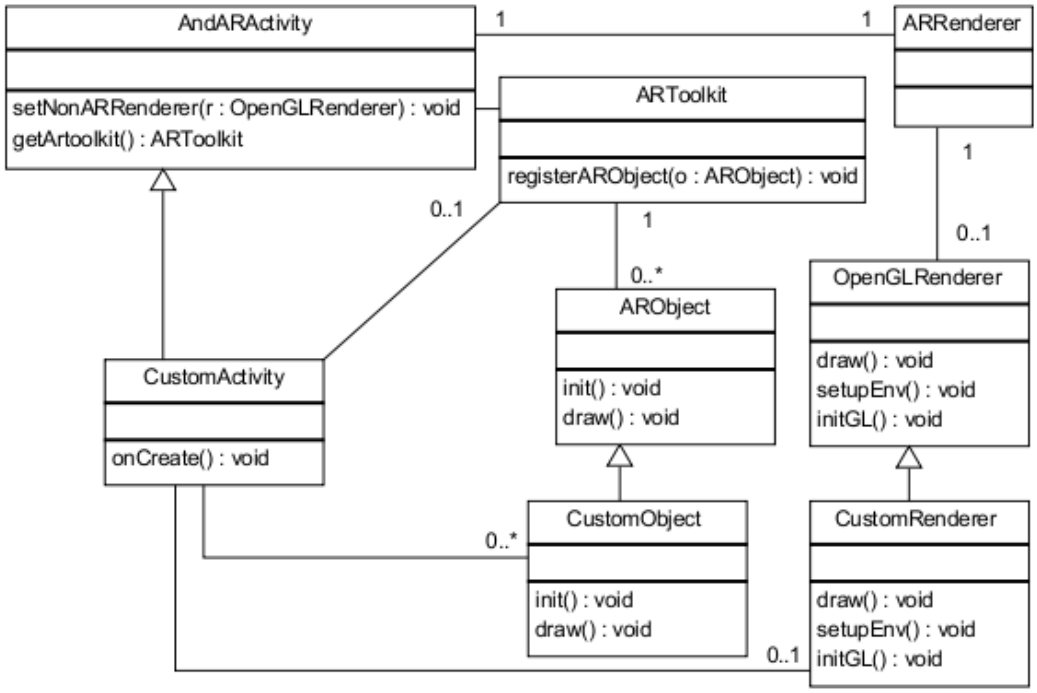
Figure 2: Login Acitivity

Architecture Diagram:

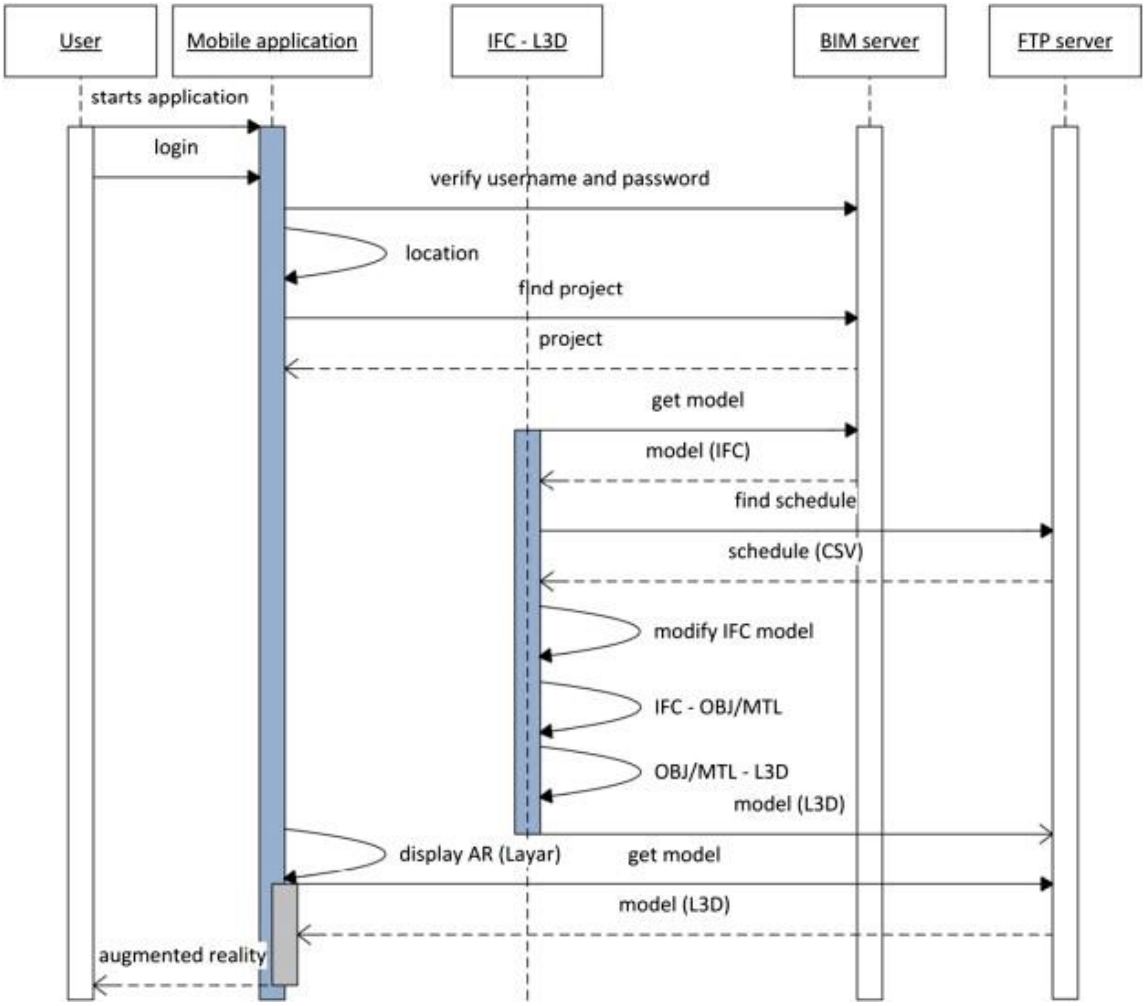


The user uses mobile phone and its camers to take images. When user wants to know the answer of any mathematical expression, he just take the picture of it. Then the data engine identify the operation in it, passes it to AR Engine and display the output image with AR features.

Class Diagram :



Sequece Diagram :



Project Management:

For this increment report, we completed the tasks we set out to complete. In this iteration, we had taken a lot of information about API's and AR engines that we are going to use. We completed the following tasks:

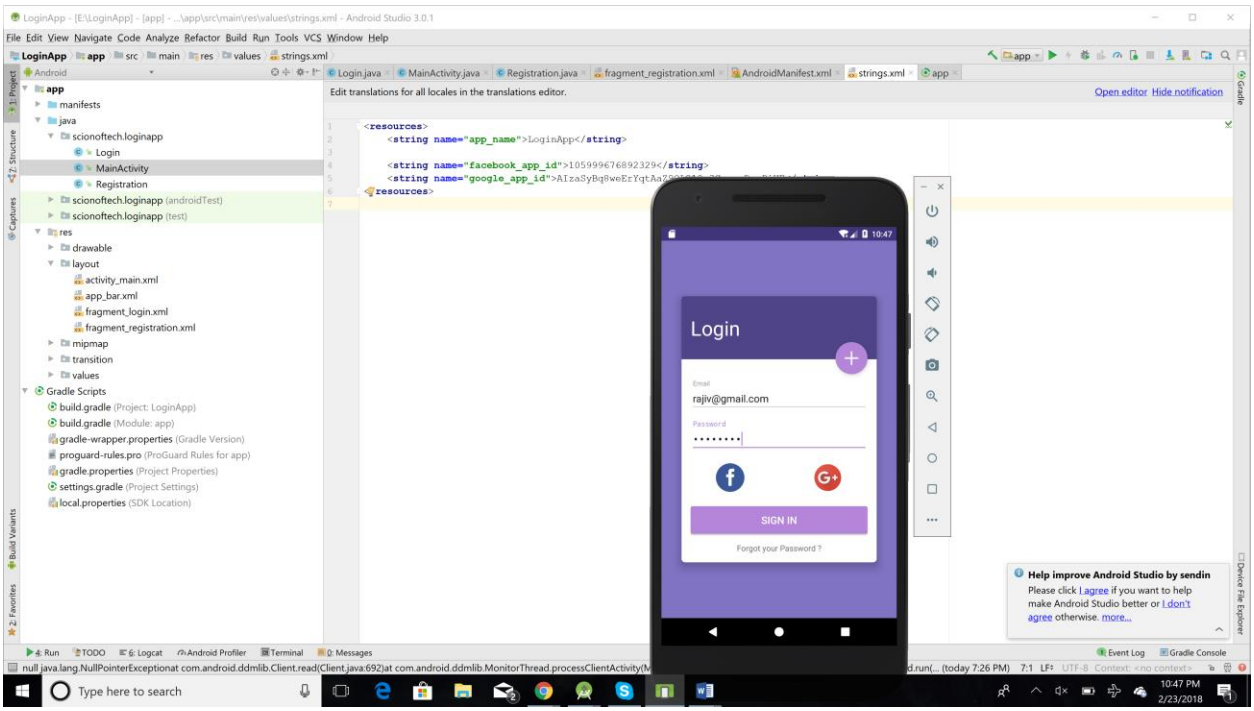
1. Research about API's
2. Create Wireframes for Registration and Sign in Activities
3. Create Login Activity
4. Create Registration Activity
5. Define OAuth Login Services

Implementation ,Description and Deployment :

The increment one has a Registration activity for the new users and a Login Activity for the existing users. It also has an OAuth Login which utilizes Facebook and Google OAuth Services.

A plus button which Is shown in the given activity screenshot allows user to sign up. A new user needs to give just the email address and the password to create an account.

Basically whenever a new user signs up , we locally store the details in the android's sql lite database.


LoginApp - [E:\LoginApp] - [app] - ...\app\src\main\res\values\strings.xml - Android Studio 3.0.1
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Edit translations for all locales in the translations editor.
Open editor Hide notification
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Login
Email
rajiv@gmail.com
Password
SIGN IN
Forgot your Password ?
Help improve Android Studio by sendin
Please click I agree if you want to help make Android Studio better or I don't agree otherwise. more...
Type here to search
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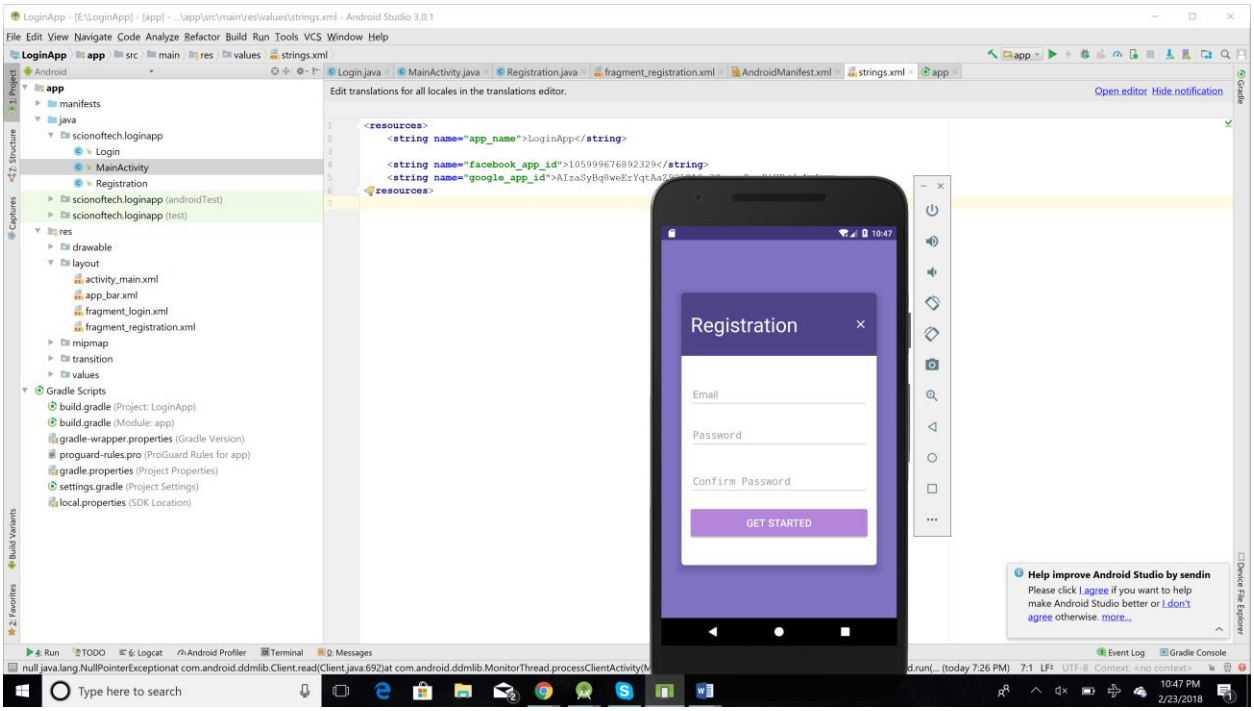
LoginApp - [E:\LoginApp] - [app] - ...\app\src\main\res\values\strings.xml - Android Studio 3.0.1
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Edit translations for all locales in the translations editor.
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Registration
Email
Password
Confirm Password
GET STARTED
Help improve Android Studio by sendin
Please click I agree if you want to help make Android Studio better or I don't agree otherwise. more...
Type here to search
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Github link :

https://github.com/sreeram843/ASE_Final_Project-SP2018/wiki/increment1

Work to be completed :

For next increments we will work on AR techniques and how to deploy them in our application.

Develop a small in android game.

Bibliography:

1)https://www.ims.tuwien.ac.at/projects/construct3d

2) http://ieeexplore.ieee.org/document/7504758/