

ASE

Project Plan & First Increment

Fall 2016



IM WORD

TEAM: 7

Chukkannagari, Pruthvi Raj Reddy
Velagapudi, Bhargav Krishna
Gattu, Santhosh Kumar
Chadalavada, Moulika

ASE



1. Introduction

IM WORD

“IM Word” is a hybrid application with the main idea to offer image based learning of vocabulary which is more easy and efficient. Our objective is to build a game combined with hint images and words which helps users to expand their knowledge in vocabulary. In turn, this also helps to users learn a new language which is a very good use of our application.

In addition to these the application also includes the logo identification game with a recommendation system to suggest logos of other similar organizations. Moreover, we would like to also include celebrity identification using their images. All these services are offered only when the user registers in the application. We are also including the social sign in plugins so that any user can login without the hassle of signup/registration forms.

The word building game with images is categorized into two. One consists of three levels -identifying the word using the hint images/image is the task at each level. The second category is finding the words embedded in the image. This helps the user to know the object names in the image and triggers enthusiasm. Furthermore, we have also included the kid and adult mode in the application which distinguishes the complete view/game experience and the difficulty in levels of the game. We would like to implement some the image processing REST API's which would be relevant to the application and creates an education experience.

2. Project Goal and Objectives

2.1 Overall Goal

Goal is to develop a hybrid application “IM Word” which is a word building game for both kids and adults. It uses Image processing API's for image analysis and verifies the answer given by the user.

2.2 Specific Objectives

“IM Word” application can be used for both educational and entertainment purpose. Kids can learn alphabets, object names, numbers and small words so that they can have lively and interactive learning. For Adults, this application can be used for fun and stress release.

2.3 Specific Features

Word building: This feature is divided into two categories.

1. In this feature, application displays a series of images which convey a specific word. User should analyze the images and guess the word correctly. Based on the score obtained, user will be upgraded to the next level and also score will be displayed.
2. In this feature, application displays an image with hidden words. User should analyze the entire image and guess the words hidden in it correctly. Based on the score obtained, user will be upgraded to the next level and also score will be displayed.

Logo Identification: In this feature, application displays one logo at a time to the user, the logo can be of any company, accessory brand, university/ school etc. User should analyze the logo and guess it. Based on the number of logos identify by the user, score will be updated and displayed to the user.









Words pronunciation: This feature uses text to speech API which pronounces the resultant word correctly. Using this feature, user can listen the pronunciation of the word correctly.

2.4 Significance

This application helps in new language learning, sparks enthusiasm in the users and we are going to introduce new image processing API's which provides effective user interface which grabs the user attention.

3. Project Plan

3.1 Schedule for different Increments

Project Increment 1  Due by September 24, 2016  Last updated about 1 hour ago Design and Architecture Login and Signup User Interface Web and Android screens	<div><div></div></div> 75% complete 1 open 3 closed Edit Close Delete
Project Increment 2  Due by October 15, 2016  Last updated about 1 hour ago User Interface for the complete application in ionic and Review C...(more)	<div></div> 0% complete 5 open 0 closed Edit Close Delete
Project Increment 3  Due by November 3, 2016  Last updated about 1 hour ago Developing the complete Game Modifying any UI Mongolab persistent storage Logo finding and similar recommendations search	<div></div> 0% complete 4 open 0 closed Edit Close Delete
Project Increment 4  Due by December 5, 2016  Last updated about 1 hour ago Reviewing the app and start end-end testing Making the final paper, presentation and video	<div></div> 0% complete 4 open 0 closed Edit Close Delete

3.2 Project Timelines, Members, Task Responsibility

- The below are the issues that are created under each Increment.
- There tasks are assigned to team members.
- Once the respective task is closed it is moved to **closed** state.

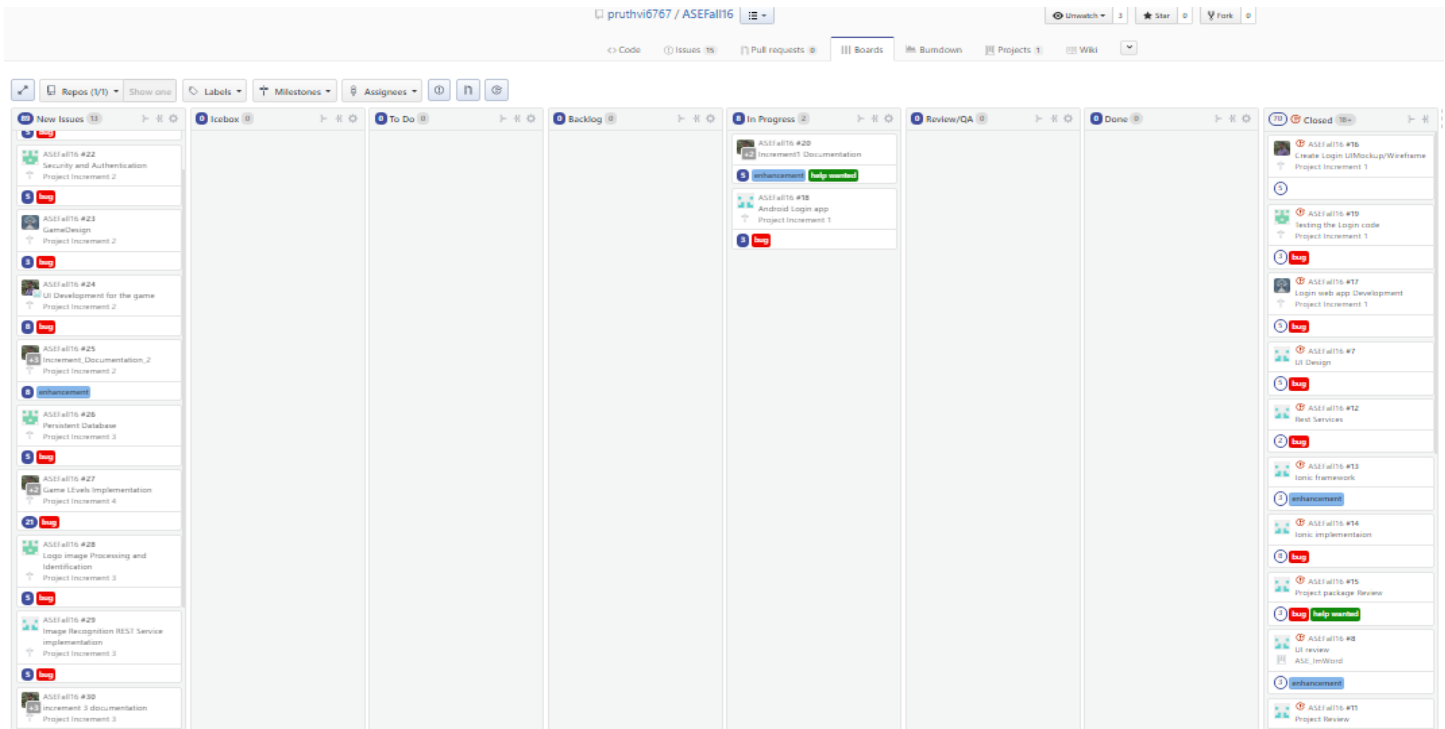
pruthvi6767 / ASEFall16

Unwatch 3 Star 0 Fork 0

<> Code Issues 15 Pull requests 0 Boards Burndown Projects 1 Wiki

Filters is:issue is:open Labels Milestones New issue

Issue	Type	Priority	Assignee
PPT and Video	bug	3	
Final Paper	bug		
FinalImplementation	bug	13	
Increment 3 documentation	bug	6	
Image Recognition REST Service implementation	bug	5	
Logo image Processing and Identification	bug	5	
Game LEvels Implementation	bug	21	
Persistent Database	bug	5	
Increment_Documentation_2	enhancement	8	
UI Development for the game	bug	8	
GameDesign	bug	3	



3.3 Burndown Chart

Project Increment 1

1. Design and Architecture
2. Login and Signup User Interface
3. Web and Android screens

Labels Hide Pull Requests

Burn Pipelines



4. First Increment Report

- In first increment of the project we have designed Login, Registration and Home Page for the application. Also created UML diagrams, Wireframes and created test cases for the part of code that is implemented.

4.1 Existing Services/Rest API

- In this increment, we have not used any of the API's but going forward we will be using Vision API, IBM Watson Analytics API, Clearbit company logo API.

4.2 Detail Design of Features

4.2.1 Wireframes

- The wireframes for first phase of project is shown below.

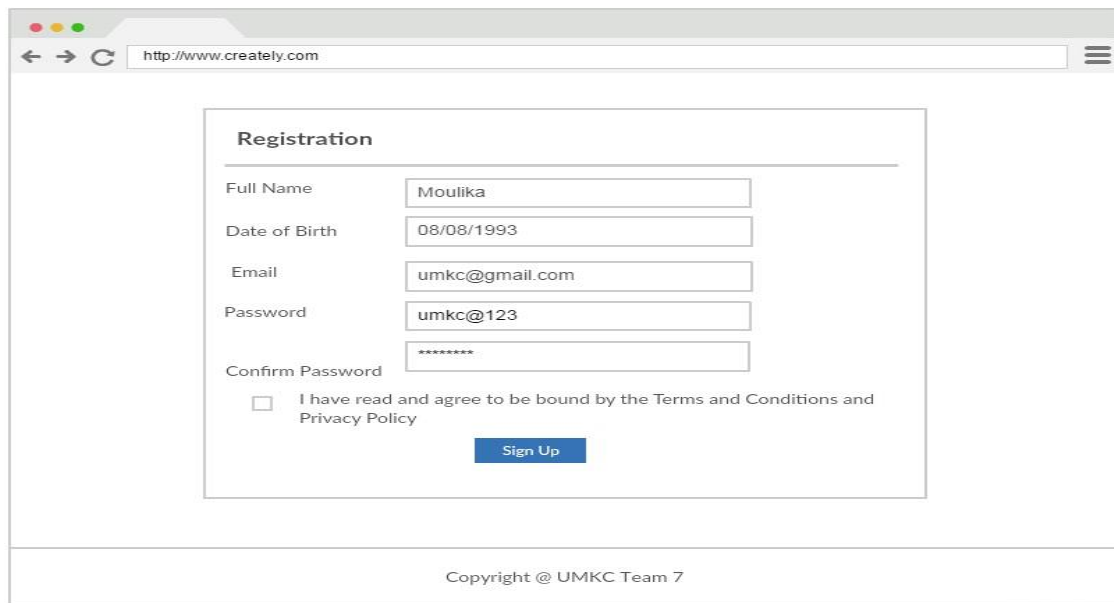
Login Page: After user clicks on Login button, he/she will be asked for login credentials i.e. user name and password.

The image shows a wireframe of a web browser window displaying a 'Sign In' page. The browser's address bar shows 'http://www.createely.com'. The page content is centered and includes the following elements:

- A title 'Sign In' at the top of the form area.
- An 'Email' label next to a text input field containing 'umkc@gmail.com'.
- A 'Password' label next to a text input field containing '*****'.
- A blue 'Sign In' button.
- A blue link labeled 'Forgot your password?'.
- Three social media icons: Facebook (f), Twitter (bird), and Google+ (g+).
- A link labeled 'Don't have an account yet?'.
- A blue 'Sign Up' button.

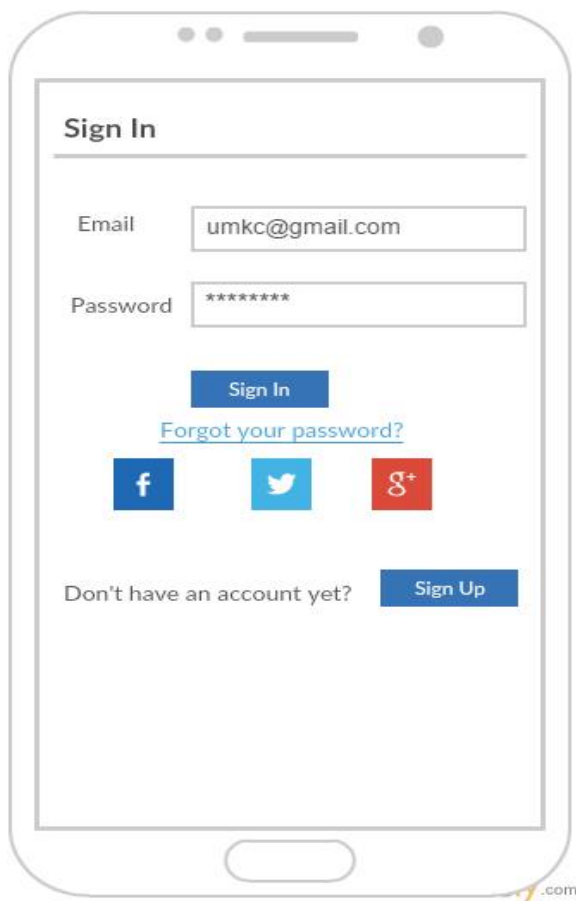
At the bottom of the browser window, there is a footer that reads 'Copyright @ UMKC Team 7'.

Registration Page: If the user does not have an account already with the application, he/she can create one by giving some details.



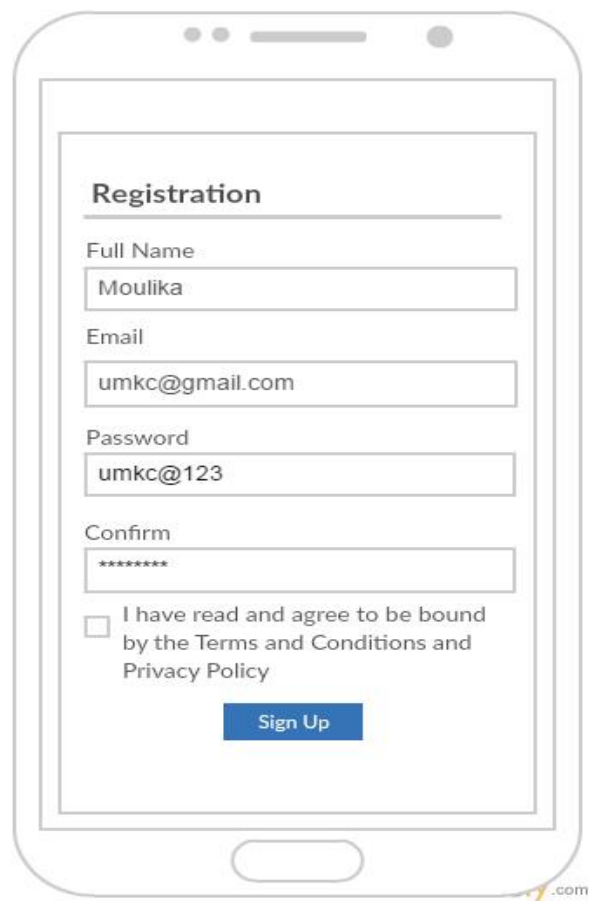
A screenshot of a web browser showing the registration page for 'www.creately.com'. The page has a title 'Registration' and contains the following fields: 'Full Name' (filled with 'Moulika'), 'Date of Birth' (filled with '08/08/1993'), 'Email' (filled with 'umkc@gmail.com'), 'Password' (filled with 'umkc@123'), and 'Confirm Password' (filled with '*****'). Below these fields is a checkbox labeled 'I have read and agree to be bound by the Terms and Conditions and Privacy Policy'. A blue 'Sign Up' button is at the bottom of the form. The footer of the page reads 'Copyright @ UMKC Team 7'.

Login Page in Android Device



A screenshot of an Android device showing the 'Sign In' page. The page has a title 'Sign In' and contains the following fields: 'Email' (filled with 'umkc@gmail.com') and 'Password' (filled with '*****'). Below these fields is a blue 'Sign In' button. Below the button is a link 'Forgot your password?'. Below the link are three social media icons: Facebook, Twitter, and Google+. At the bottom, there is a link 'Don't have an account yet?' and a blue 'Sign Up' button.

Registration Page in Android Device



A screenshot of an Android device showing the 'Registration' page. The page has a title 'Registration' and contains the following fields: 'Full Name' (filled with 'Moulika'), 'Email' (filled with 'umkc@gmail.com'), 'Password' (filled with 'umkc@123'), and 'Confirm' (filled with '*****'). Below these fields is a checkbox labeled 'I have read and agree to be bound by the Terms and Conditions and Privacy Policy'. A blue 'Sign Up' button is at the bottom of the form.

4.2.2 User Stories

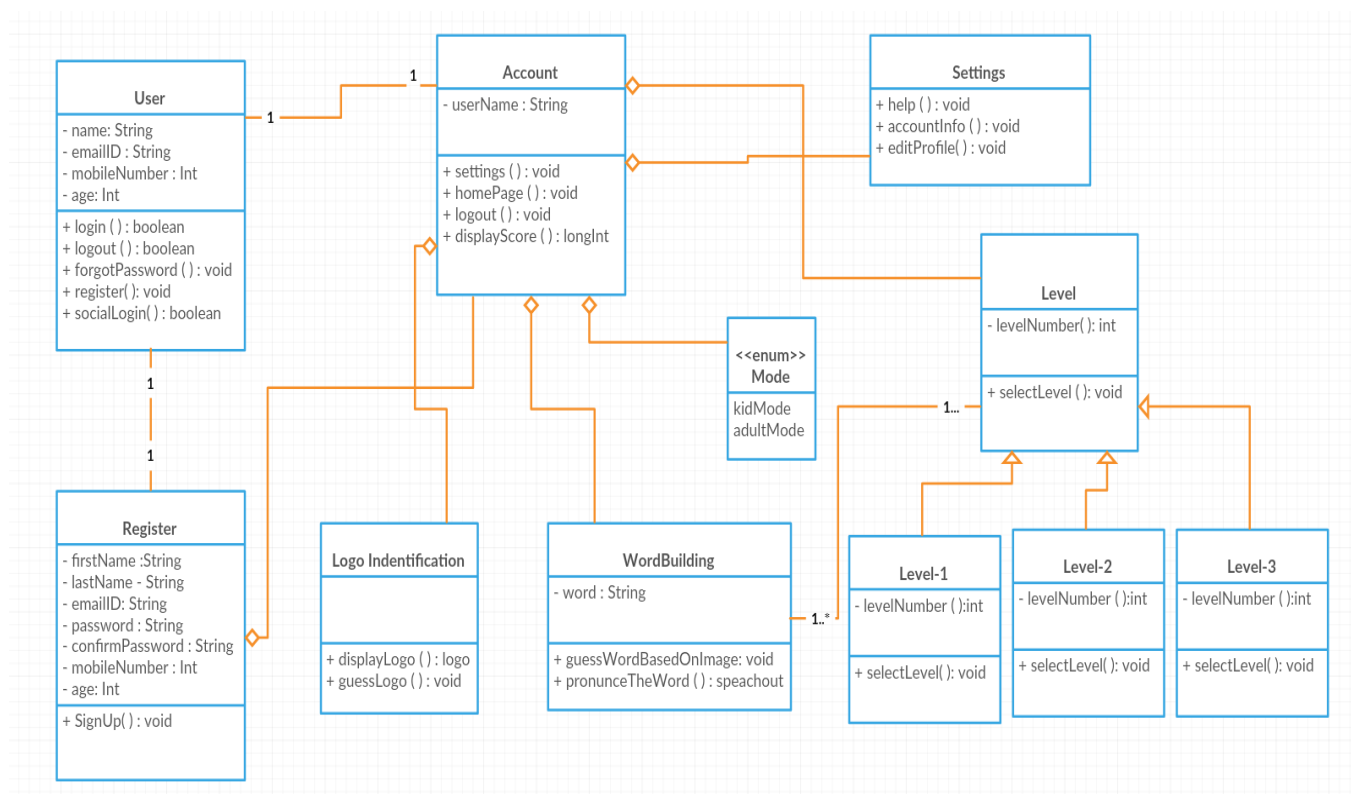
Vocabulary Building:

The most important takeaway from our application is vocabulary building. The plethora of words available in English language makes an individual to opt for easy and efficient ways of learning. Our application serves one amongst them

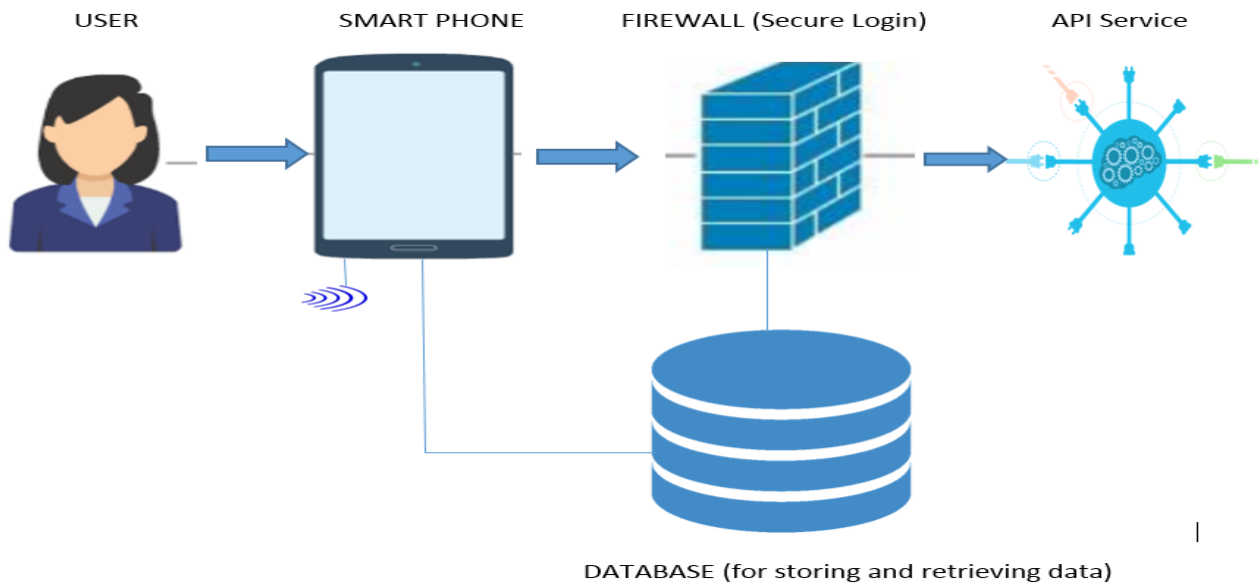
New Language Learning:

The application also serves to enhance the user experience of learning a new language through images. Currently, we would like to implement to the new language to learn as Spanish.

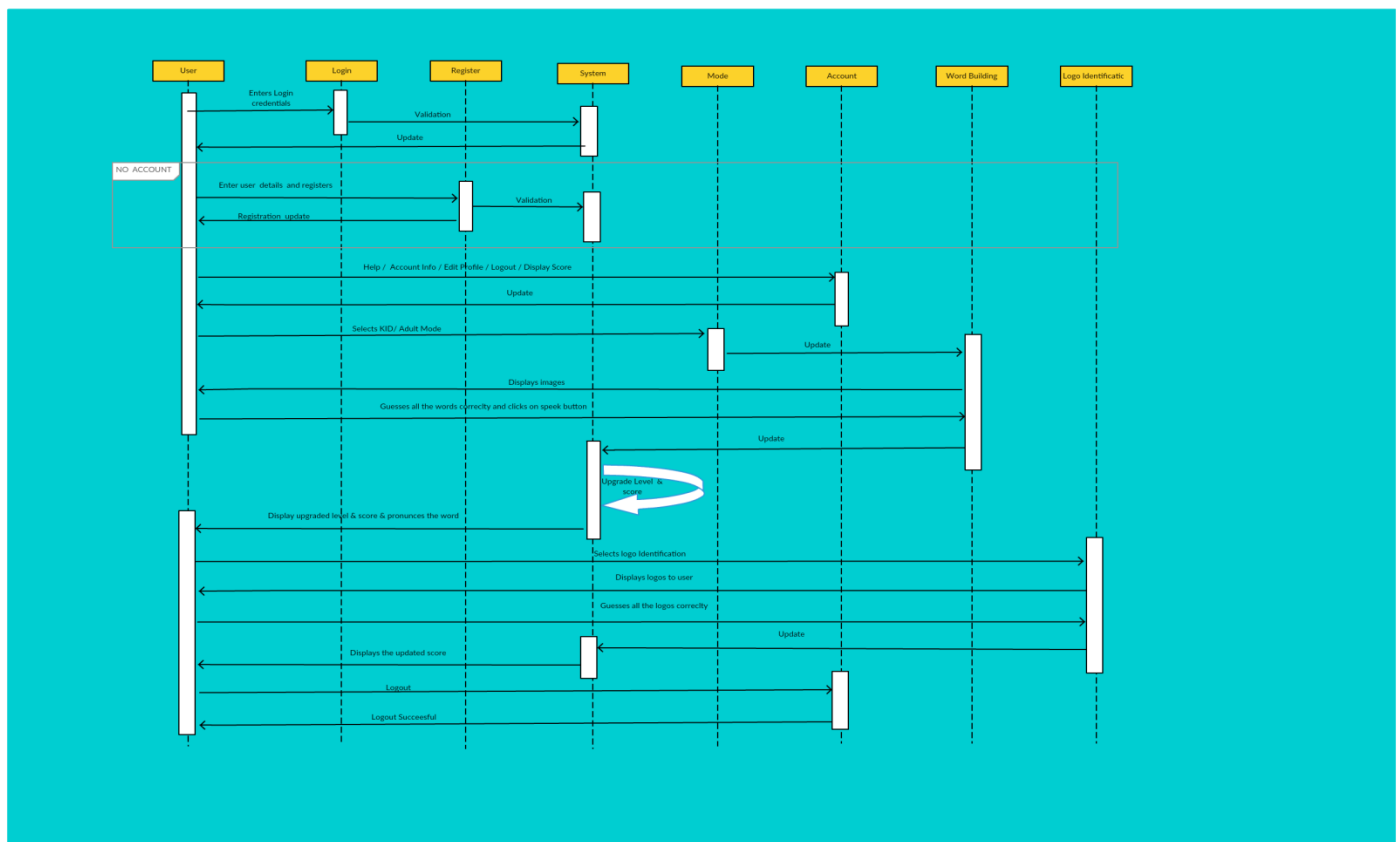
Class Diagram



Architecture Diagram



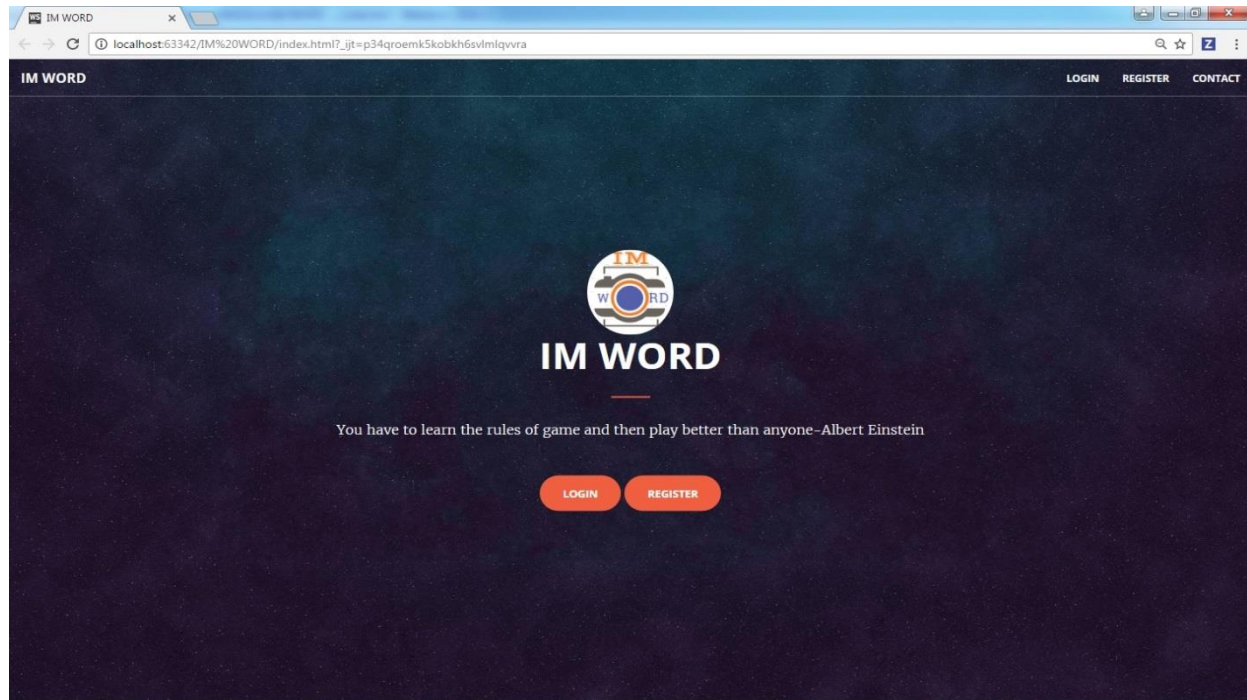
Sequence Diagram



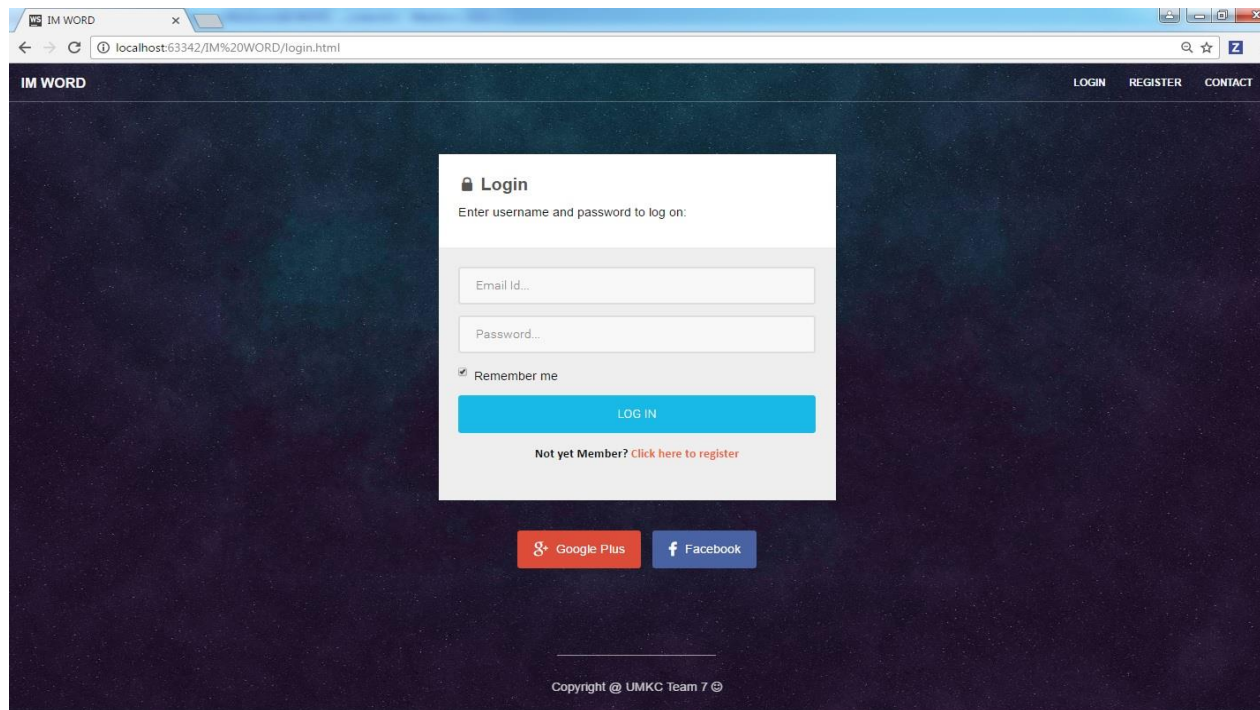
4.3 Implementation

- The login and registration pages are designed in both web and android.

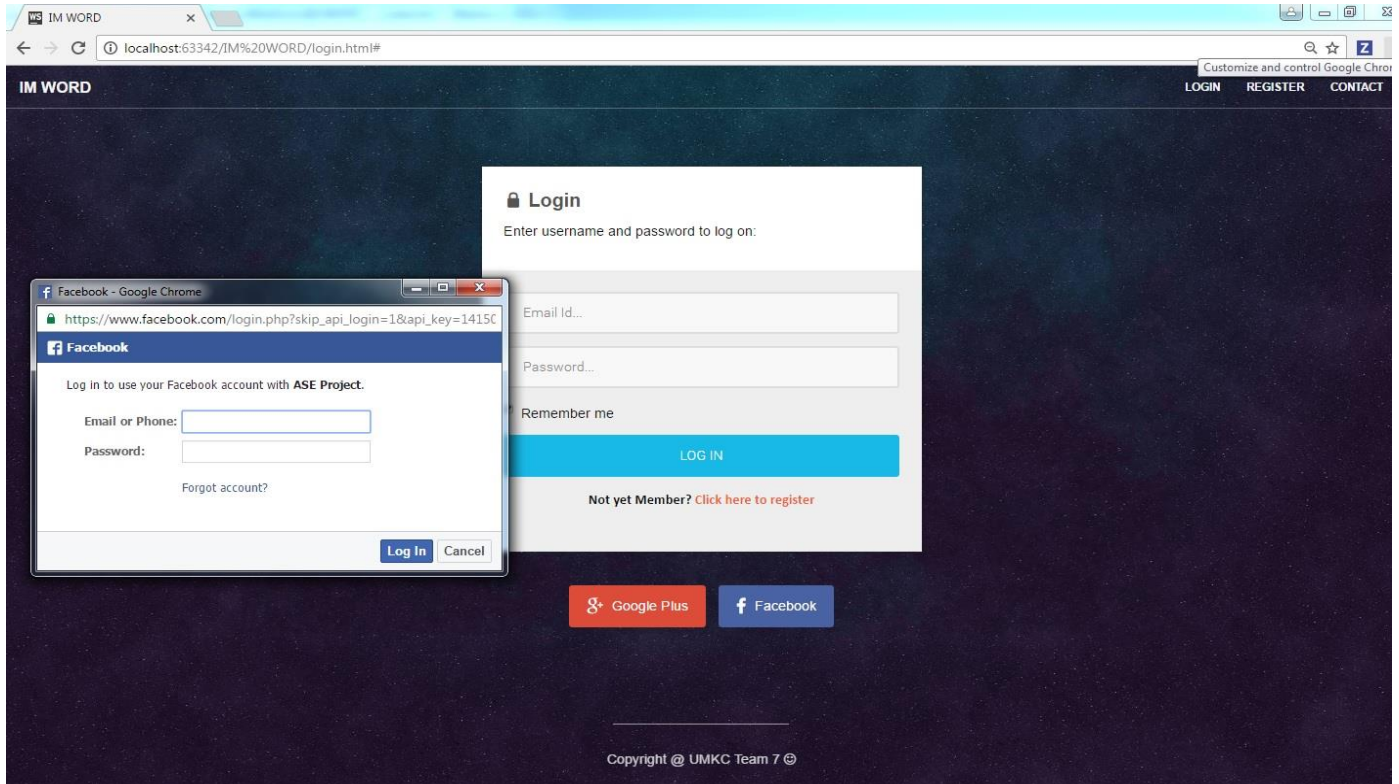
Home Page for Web Application



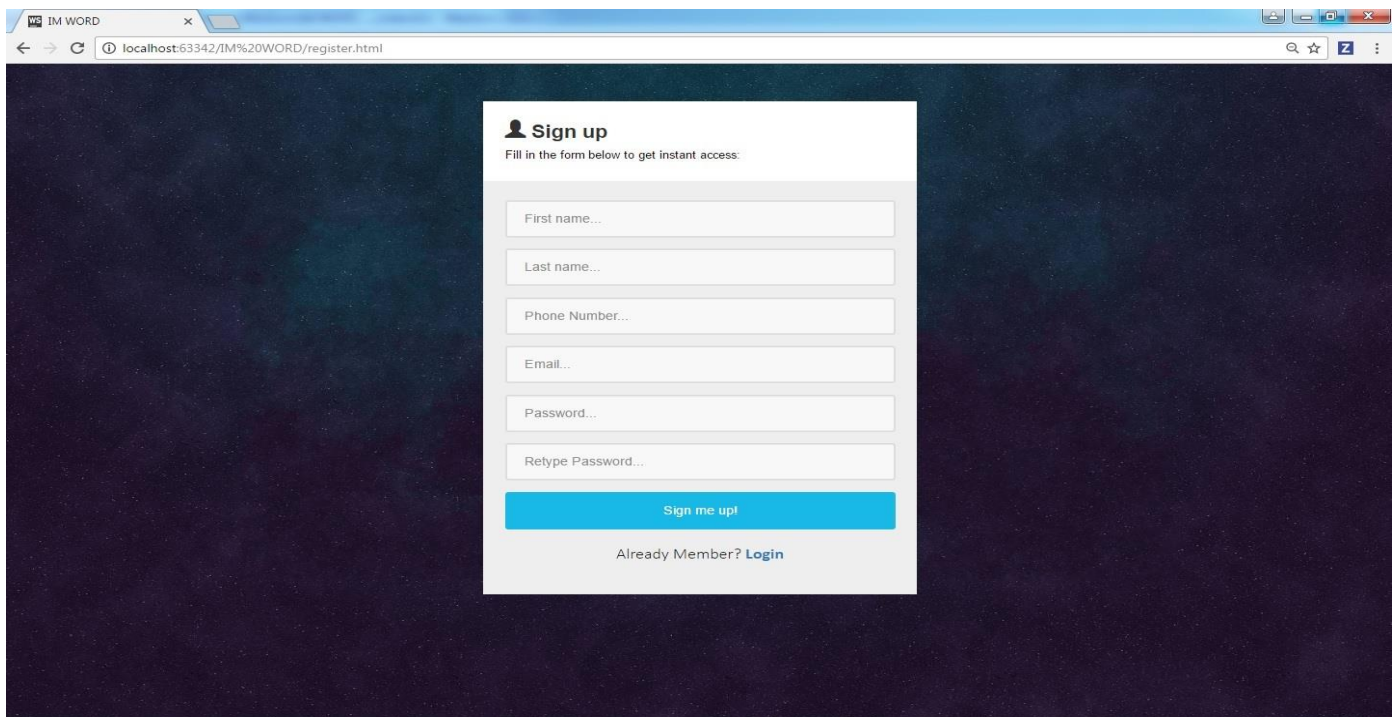
Login Page for Web Application



Social Login Validation



Registration Page



Android Login Page

IM WORD

Email

Password

LOGIN

Not yet registered? Create one

Android Registration Page

IM WORD

Name

Email

Password

CREATE ACCOUNT

Already a member? Login

4.4 Testing

4.4.1 Unit Testing

The below are the unit test cases for first phase of the project.

S.no	Test case Title	Description	Expected Outcome	Result
1	User Login Verification	The user should login with the registered email id and password.	Login has to be successful and user has to be redirected to Home page.	Pass

2	User Login Verification with invalid details	The user enters either wrong email id or password.	Login should fail with error message on the Login Screen.	Pass
3	User Login Verification with no details	The user enters no details (email id , password) and tries to login	Login should fail with error message on Login Screen	Pass
4	New user registration	The new user should enter all the details such as Name, Email, Password etc. and the admin has to validate the entered details.	User should be able to register successfully and is redirected to Login page	Pass
5	Invalid User Registration	New user tries to register with no details and tries to Sign Up.	Registration should fail and error message has to be shown on registration screen.	Pass

4.5 Deployment

- We have deployed the application in mobile and captured the screenshots.
- Also deployed the same in web application.
- We have explained them in detail under Implementation section above.
- GitHub URL for the project documentation and source code
https://github.com/pruthvi6767/ASEFall16/tree/master/Project/Increment_1

4.6 Project Management

Technologies Used: Bootstrap, Angular JS, HTML, CSS, Android SDK, Oauth 2.0

Softwares Used: Android Studio, Web storm.

Completed the following work:

1. UML diagrams.
2. Created increments in Zenhub.
3. Created wireframes.
4. Login and registration page for both android and web applications.
5. Designed logo for the application
6. Also added social sign in to the login page.

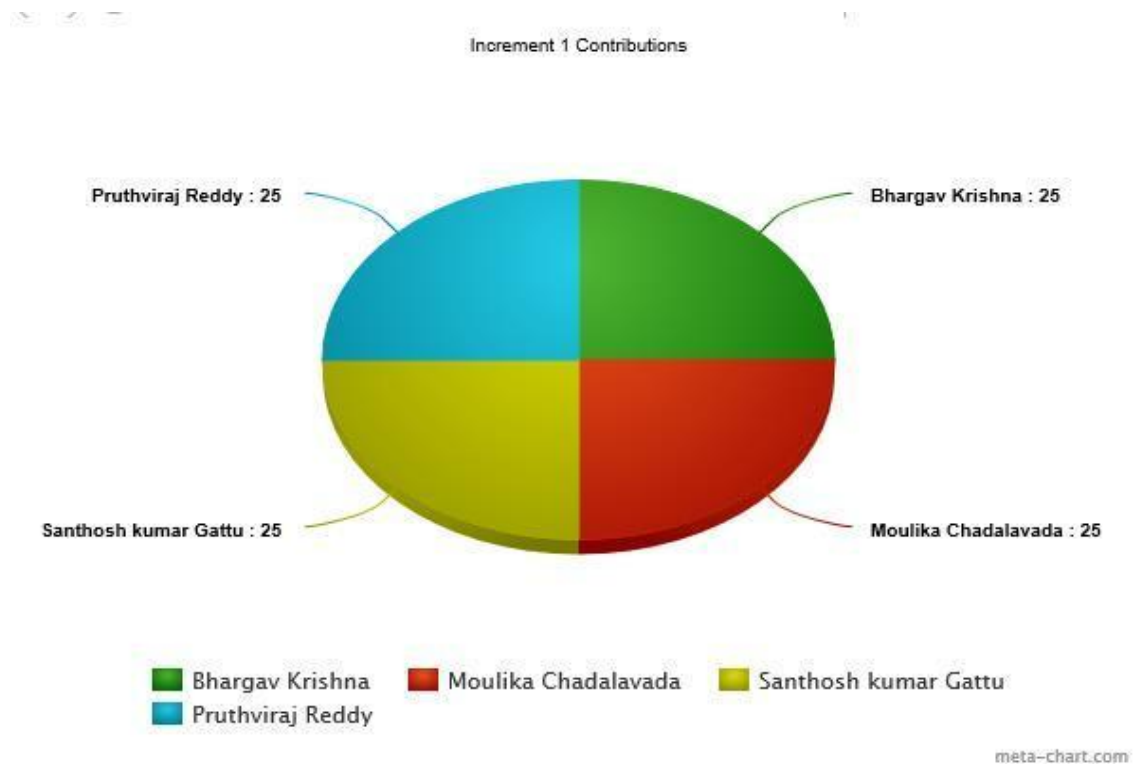
Contributions:

Pruthvi raj Reddy - 25%

Bhargav Krishna - 25%

Santhosh Kumar Gattu - 25%

Moulika Chadalavada - 25%



4.7 Bibliography

<http://scrapelogo.com/dead-simple-api/>

<http://catchoom.com/documentation/image-recognition-api/>

http://fastandfluid.com/publicdownloads/AngularJSIn60MinutesIsh_DanWahlin_May2013.pdf