



Tech Hub

Project Final Report

Fall 2016

TEAM - 2

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1. Introduction

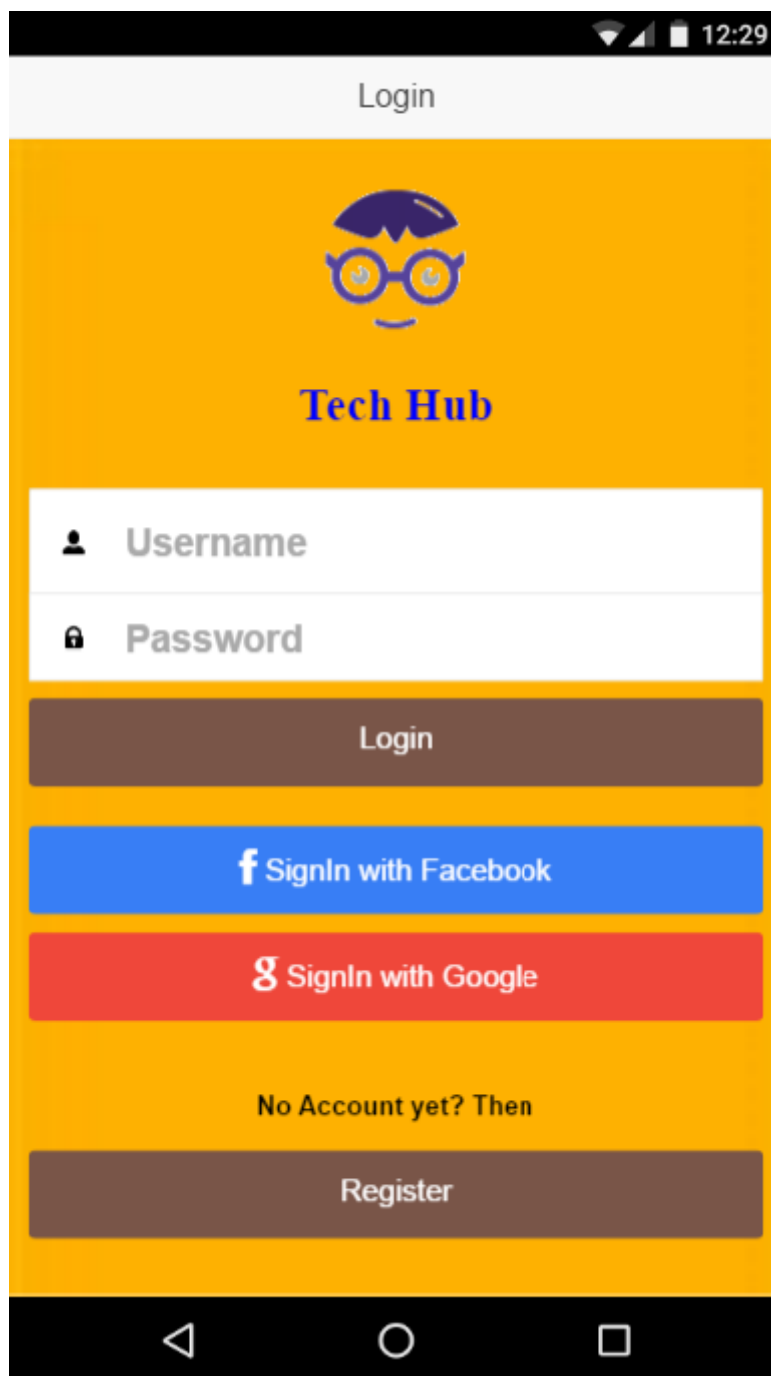
Tech Hub

The Advancement in the feather of Computer Science had improved immensely in the last decade, as its seeds sowed with 1's and 0's and now engineers with integration of 1's and 0's made many software applications to resolve complex things easily. This project is an attempt to make all the technical stuff available to students at a single point. Our main aim is to develop an application where a user can access all types of resources like wiki pages, videos, online courses, events and can discuss about any technical issues with other members of the application.

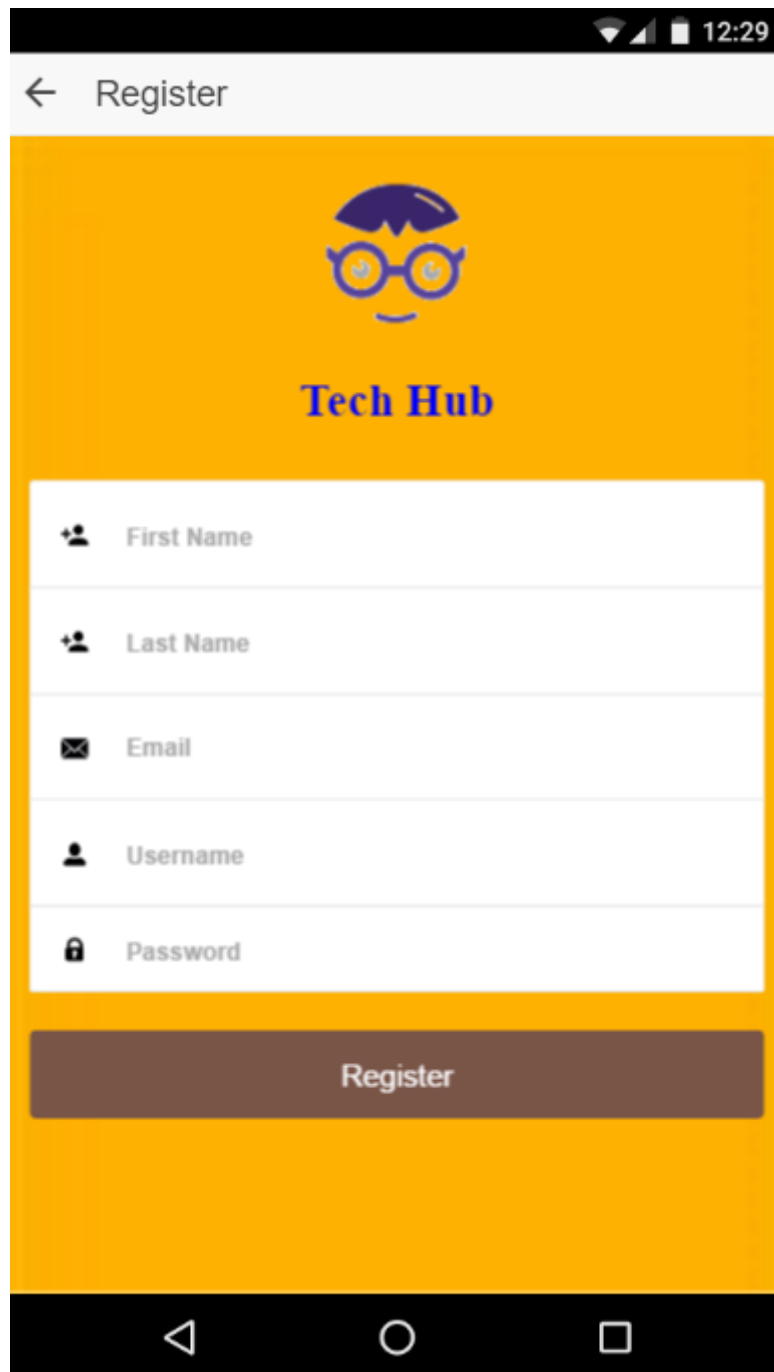
2. Project Deployment & Project Management

Application:

2.1 Login page for the application “Tech Hub” as shown below:

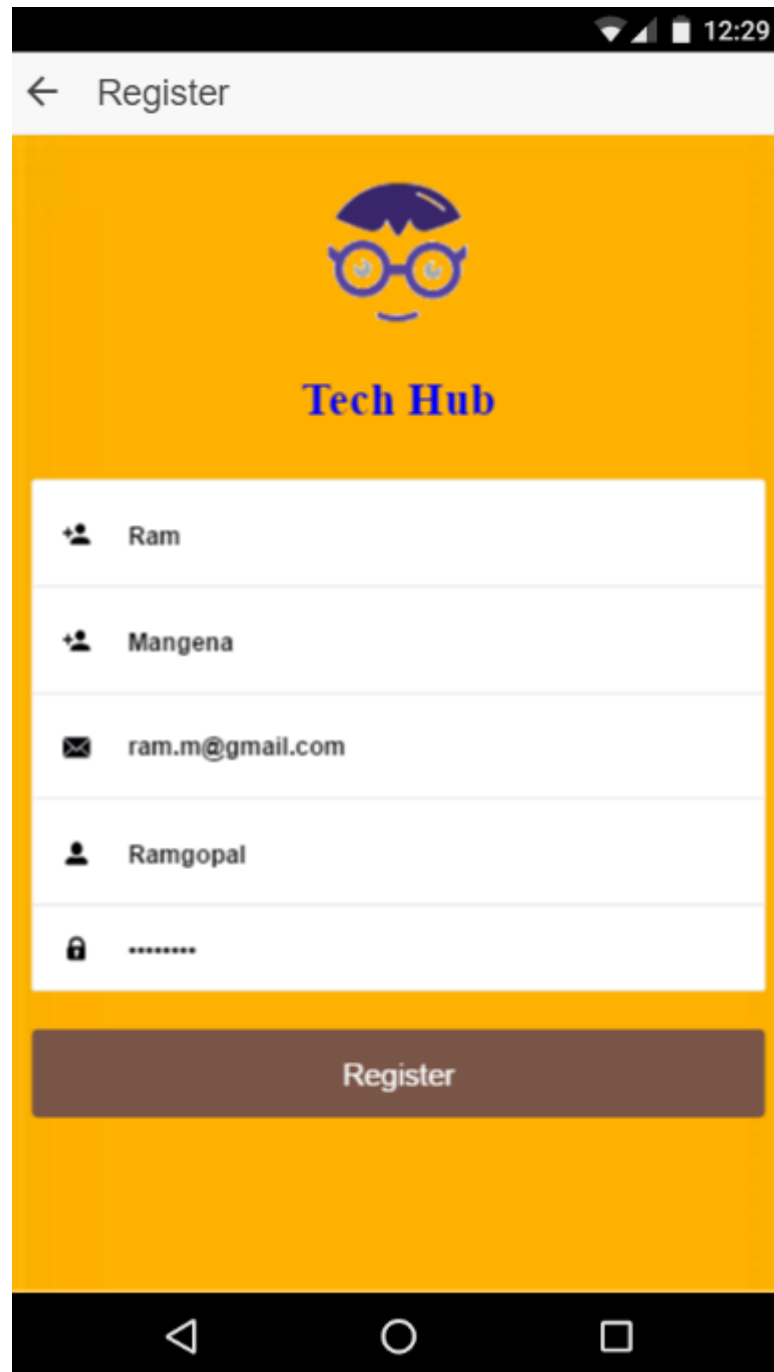


2.2 A new user can register by clicking on 'No account yet? Create one' button. By clicking on this button, application will be redirected to registration page.



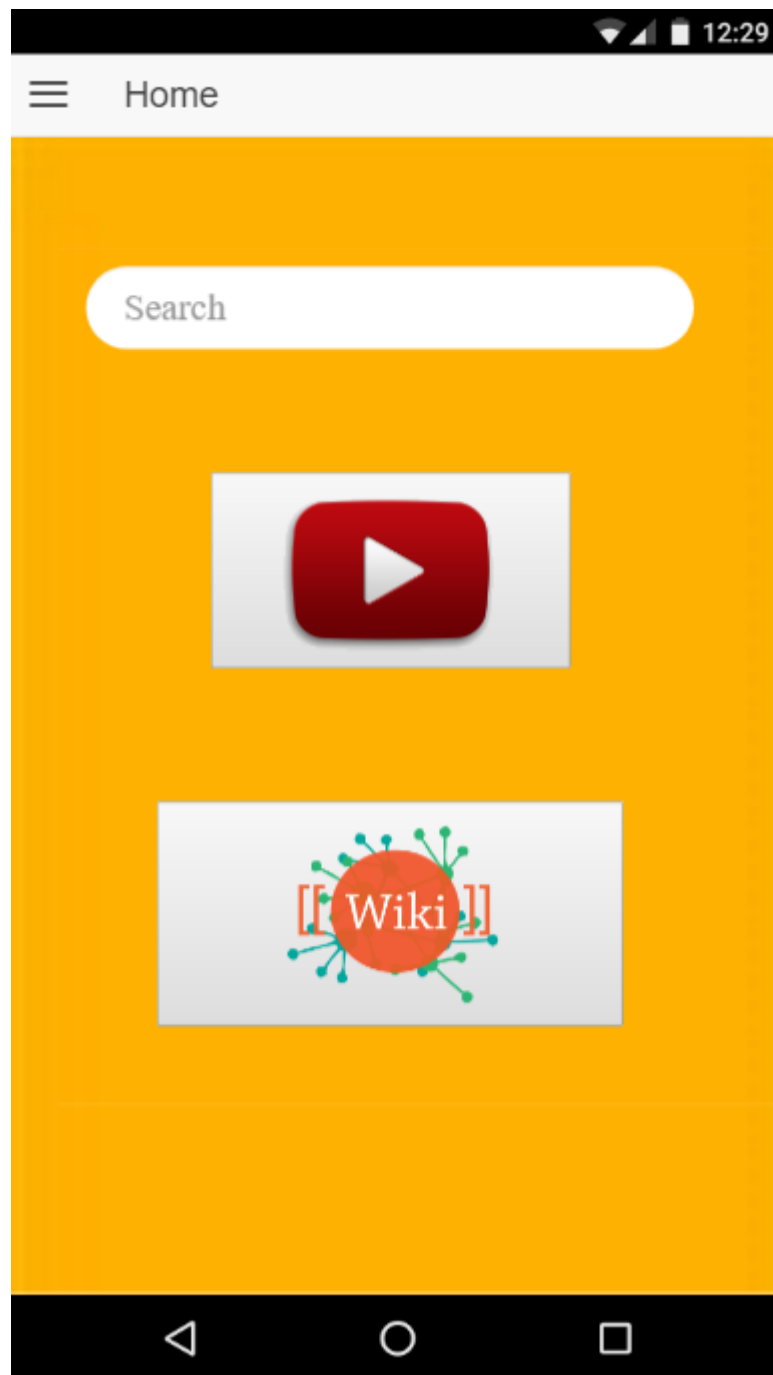
The screenshot shows a mobile application interface for registration. At the top, there is a black status bar with a Wi-Fi icon, a battery icon, and the time 12:29. Below this is a white header bar with a back arrow and the text 'Register'. The main background is orange. In the center, there is a purple cartoon character wearing glasses and a graduation cap, with the text 'Tech Hub' below it. Below the character, there is a white form with five input fields, each with an icon and a label: a person icon for 'First Name', a person icon for 'Last Name', an envelope icon for 'Email', a person icon for 'Username', and a lock icon for 'Password'. At the bottom of the form is a brown 'Register' button. The bottom of the screen shows a black navigation bar with three white icons: a triangle, a circle, and a square.

2.3 User must enter name, email id, password and confirm password fields to complete the registration.



The screenshot shows a mobile application interface for registration. At the top, there is a status bar with the time 12:29 and signal indicators. Below it is a header bar with a back arrow and the text 'Register'. The main background is orange. In the center, there is a logo of a purple face with glasses and a mustache, with the text 'Tech Hub' below it. Below the logo, there is a white form with five input fields, each with an icon on the left: a person icon for 'Ram', a person icon for 'Mangena', an envelope icon for 'ram.m@gmail.com', a person icon for 'Ramgopal', and a lock icon for a password field containing seven dots. At the bottom of the form is a brown button with the text 'Register'. The bottom of the screen shows the Android navigation bar with back, home, and recent apps buttons.

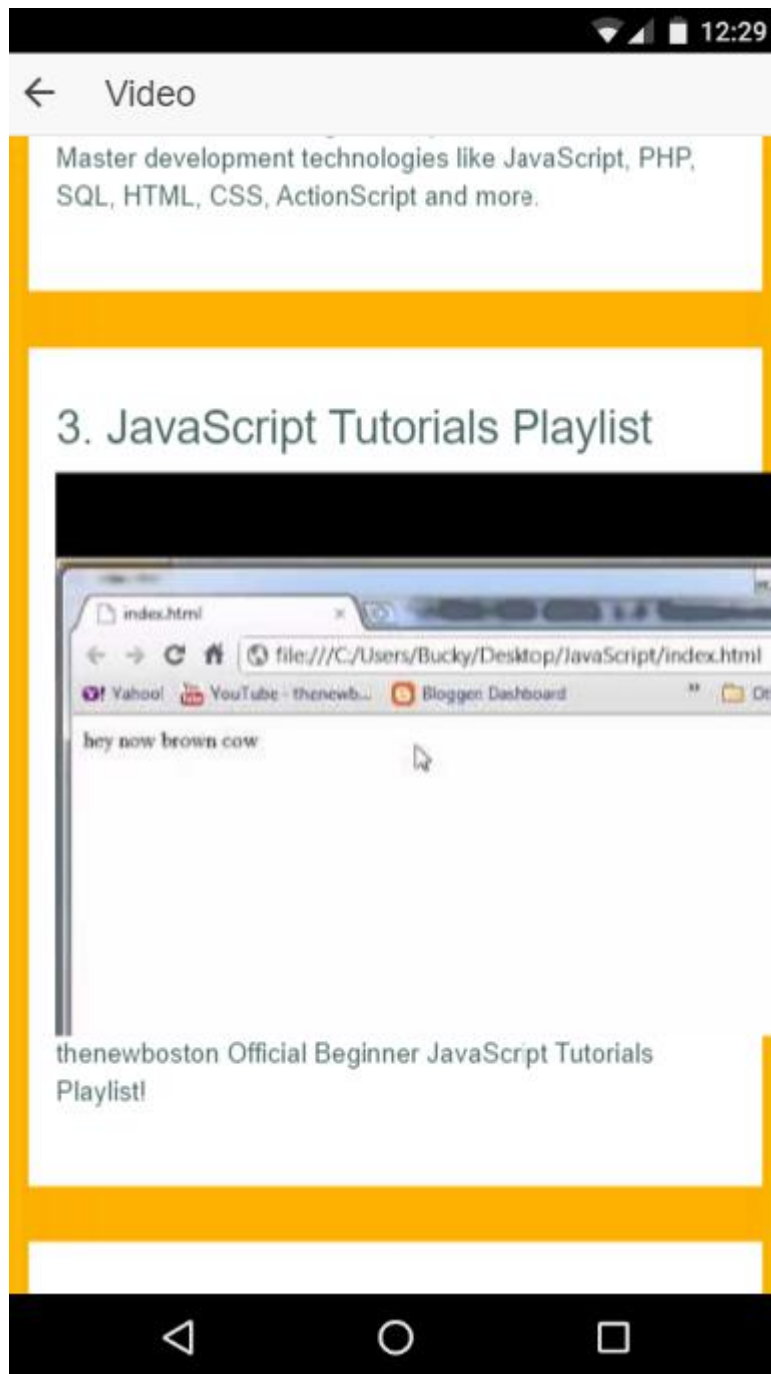
2.4 Following is the home page of our application. User will be redirected to home page by logging into the system either through application login or through Facebook login.



2.5 User can search for any technology on home page by giving the search string in the provided textbox.



2.6 By clicking on video, results related to videos will be displayed.



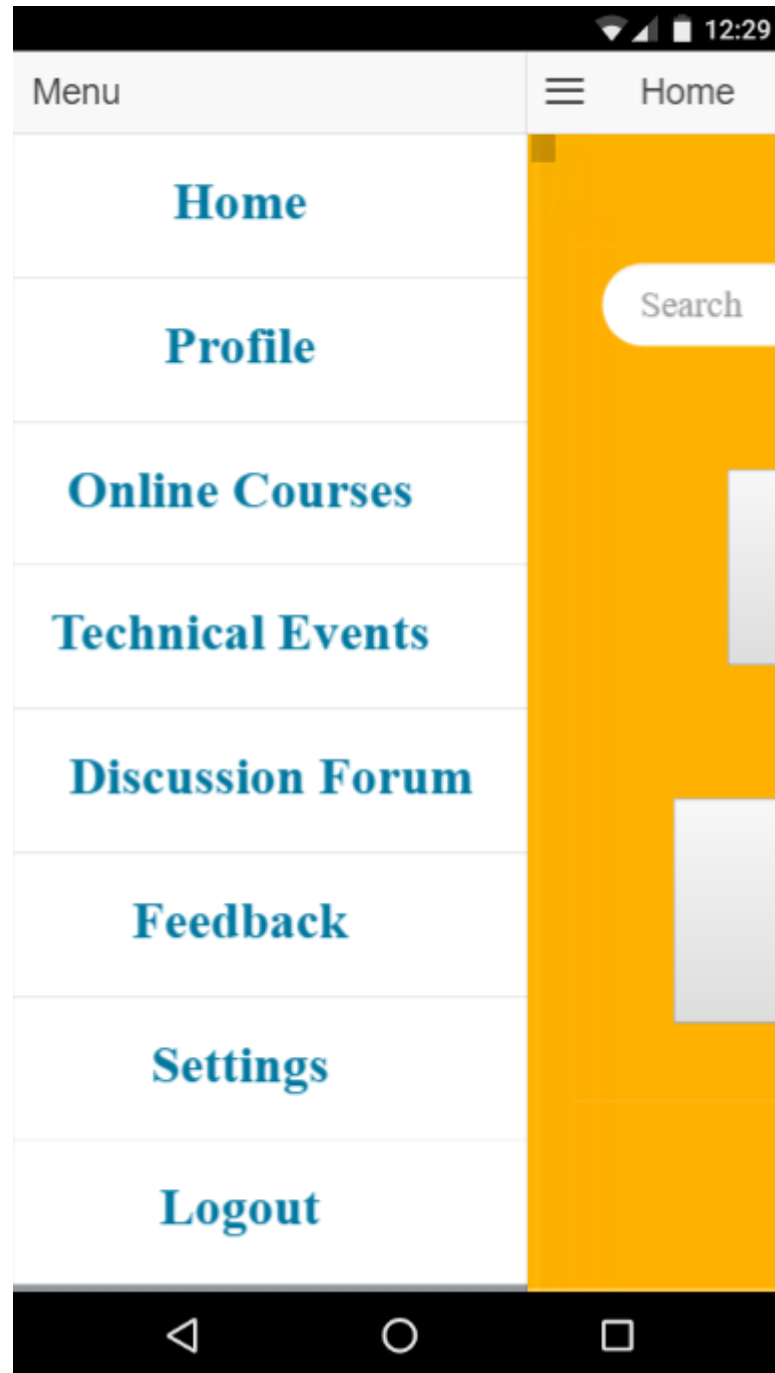
2.7 By clicking on wiki search, user will be redirected to a page with wiki results.



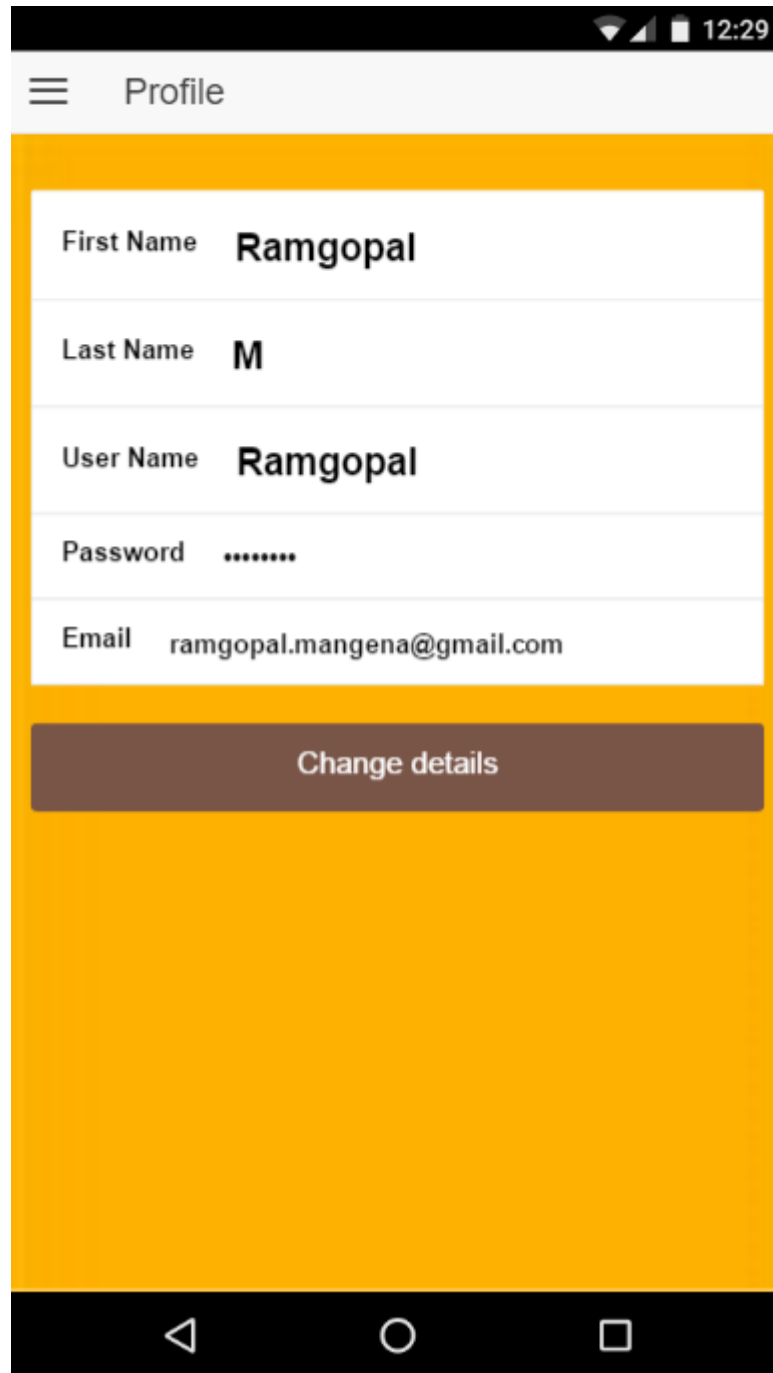
2.8 By clicking on any wiki link, corresponding wiki page will be displayed.



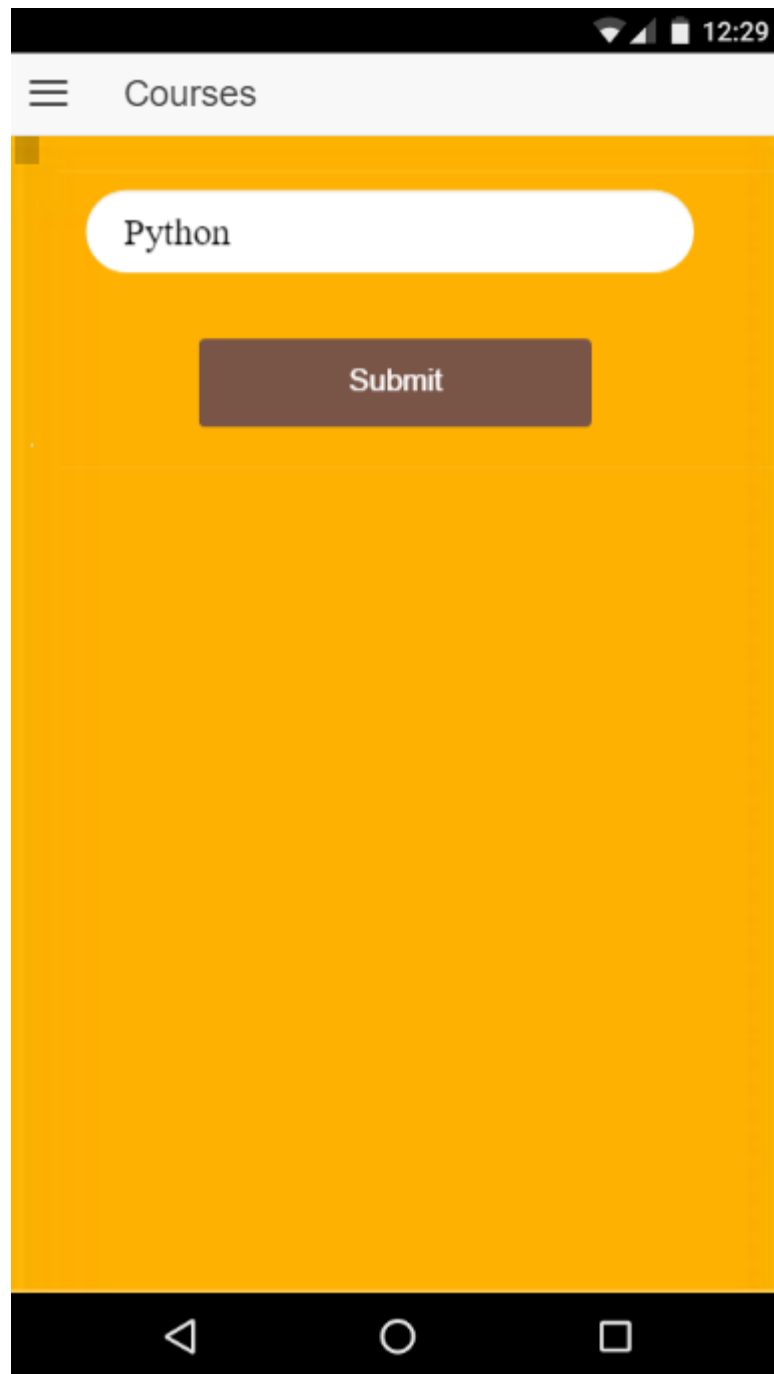
2.9 This is the side menu of our application.



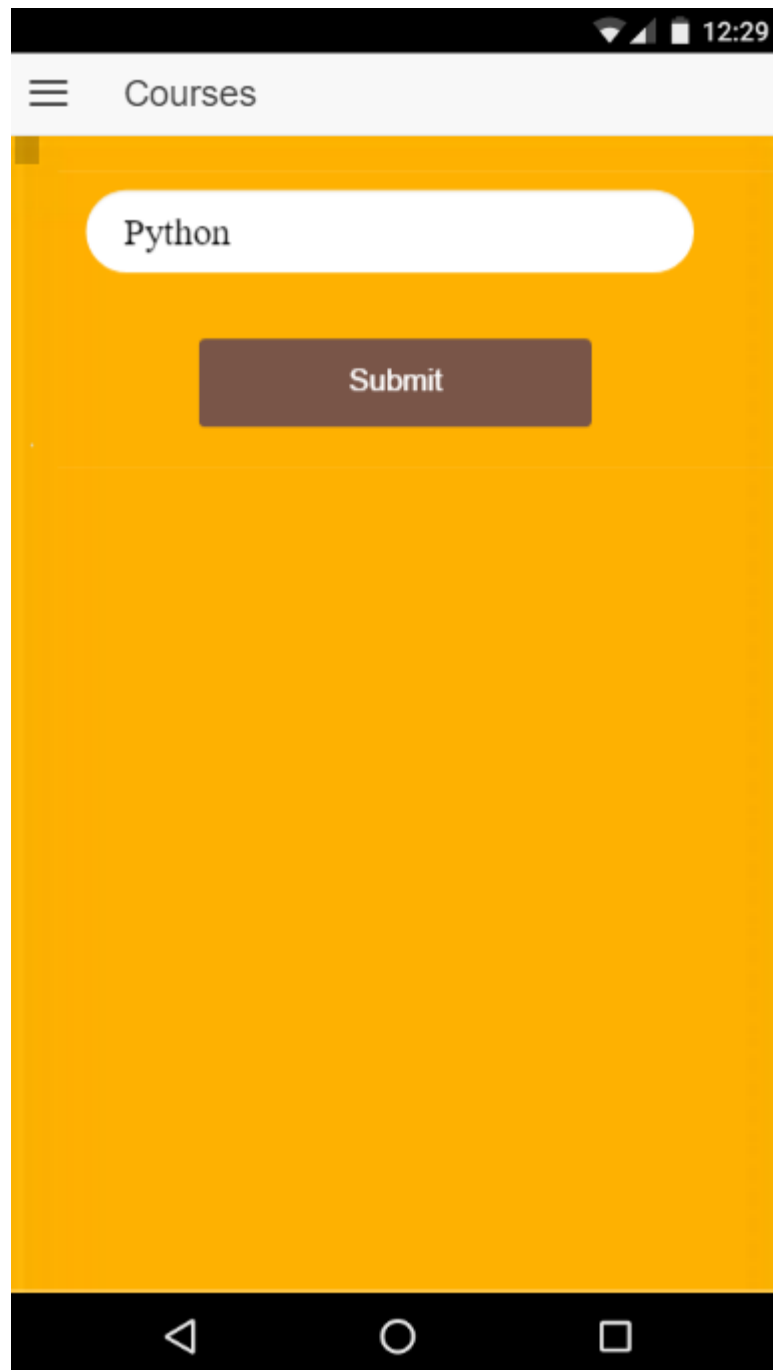
2.10 By clicking on profile, user details will be displayed.



2.11 By clicking on 'online courses' button from side menu, courses home page will be displayed.



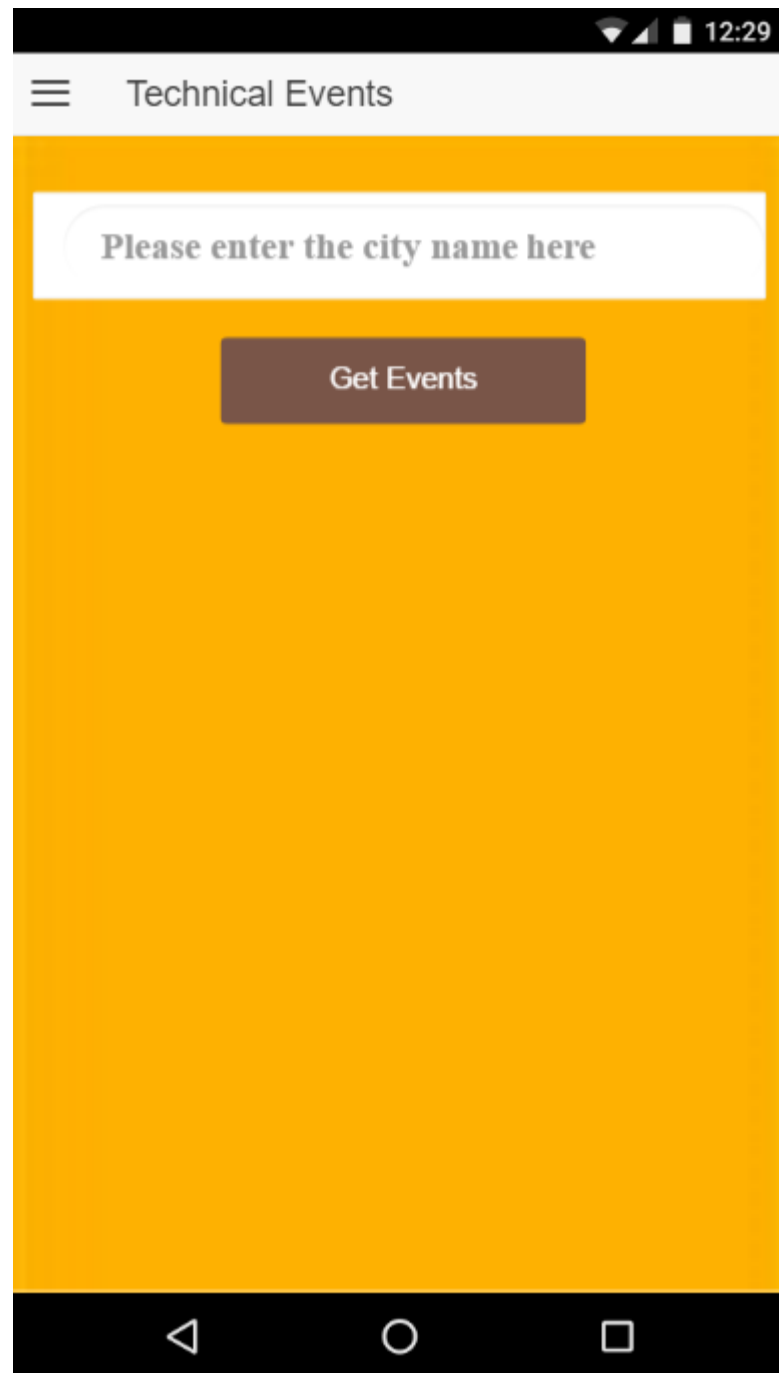
2.12 User can give any search string and corresponding courses will be retrieved from coursera website.



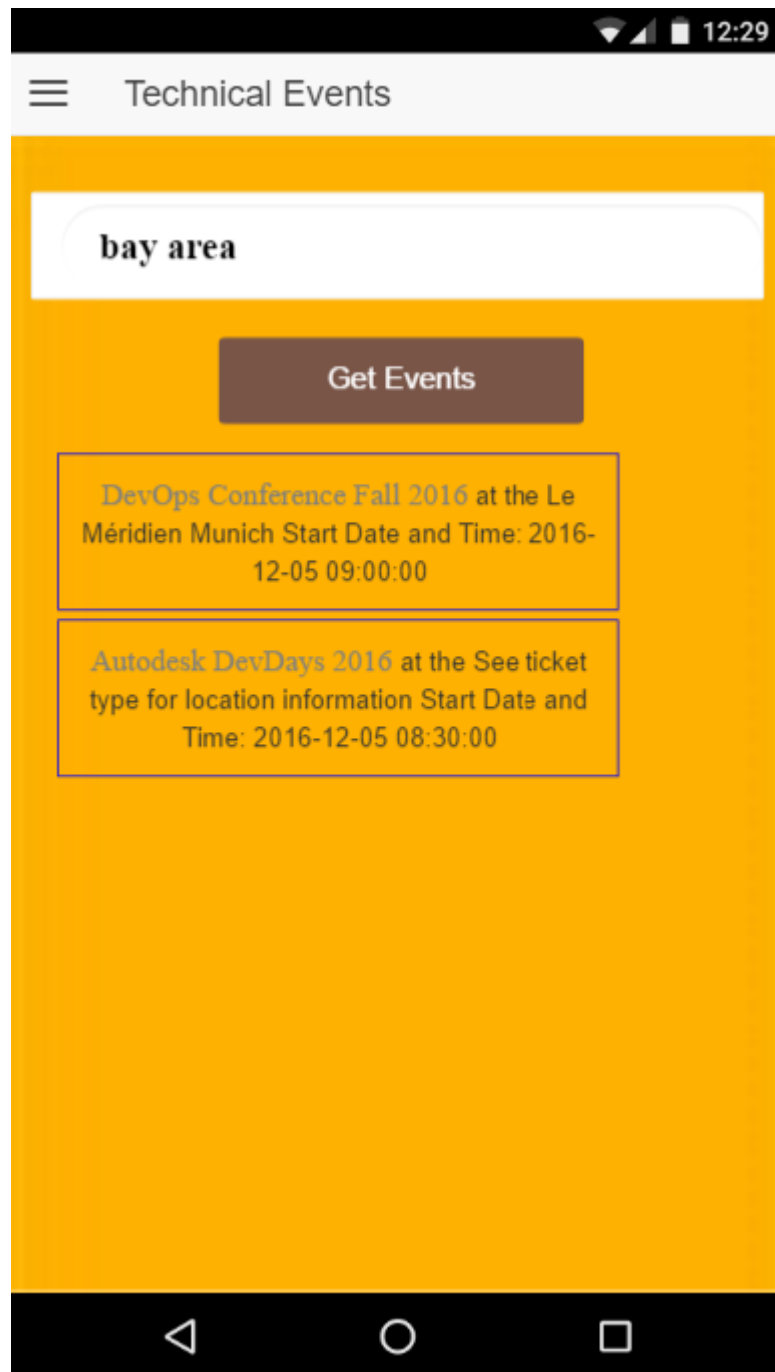
2.13 Following are the search results for the word 'python'. Our application will display all available courses related to python from coursera website.



2.14 By clicking on 'Technical events' button on side menu, user will be redirected to a page that will provide all the technical events in the given area.



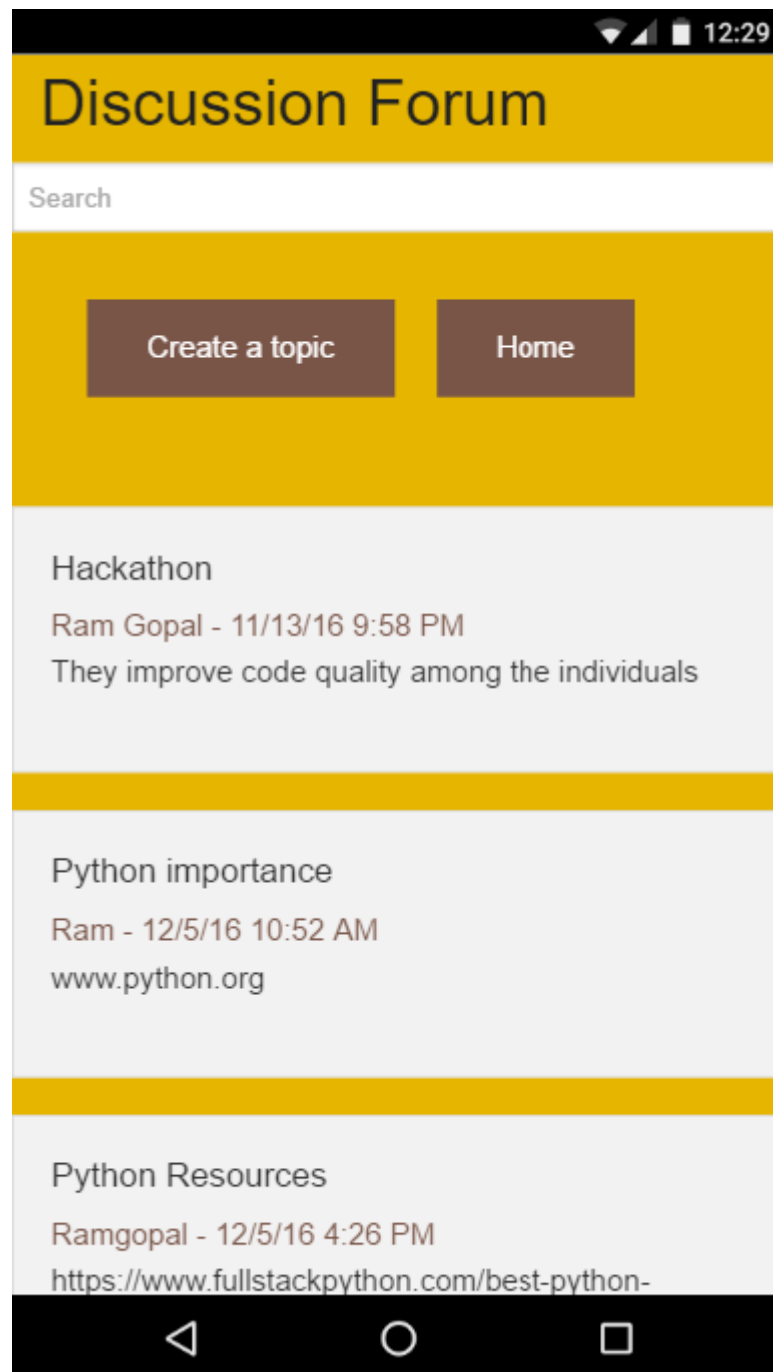
2.15 Following screenshots refers the search results for the key word 'bay area'. Our application retrieves all the technical events from the given area.

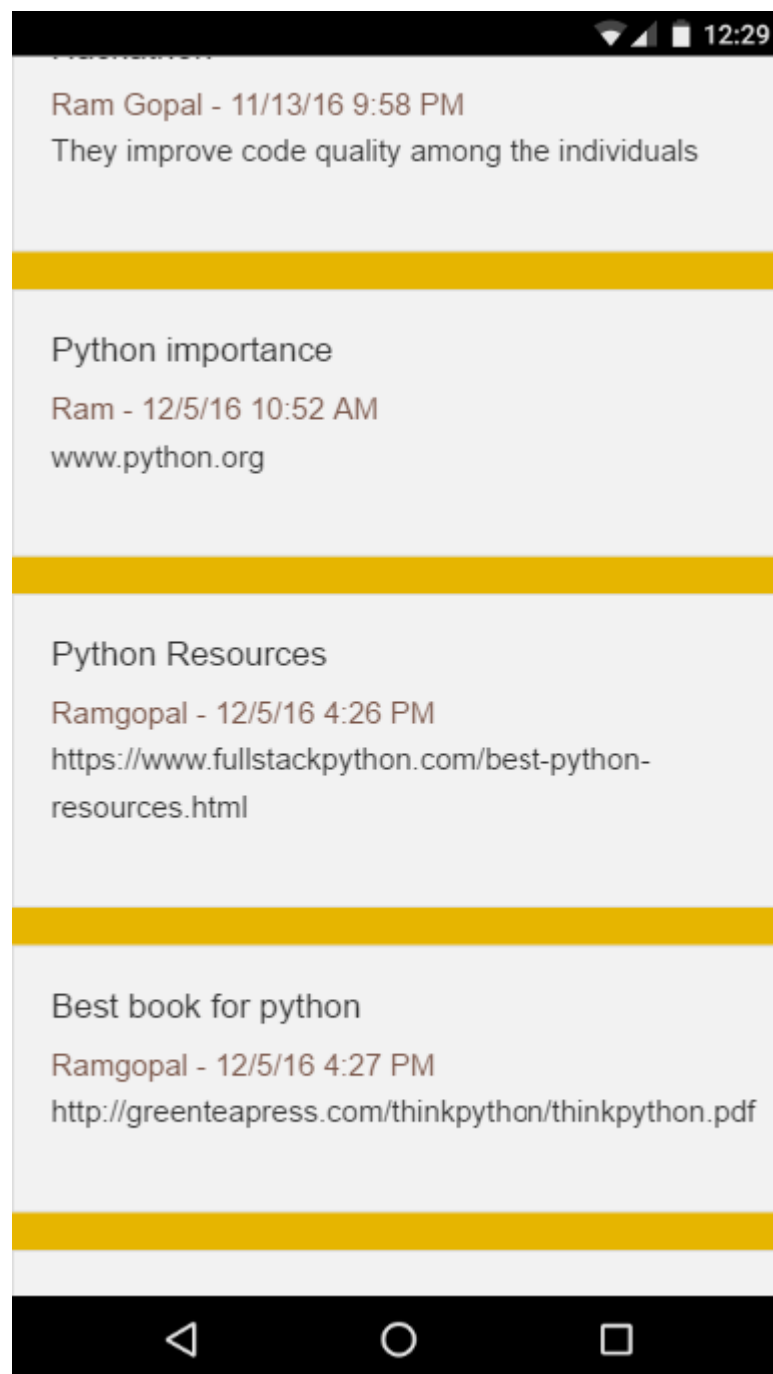


2.16 Following image corresponds to the event search results for another area.

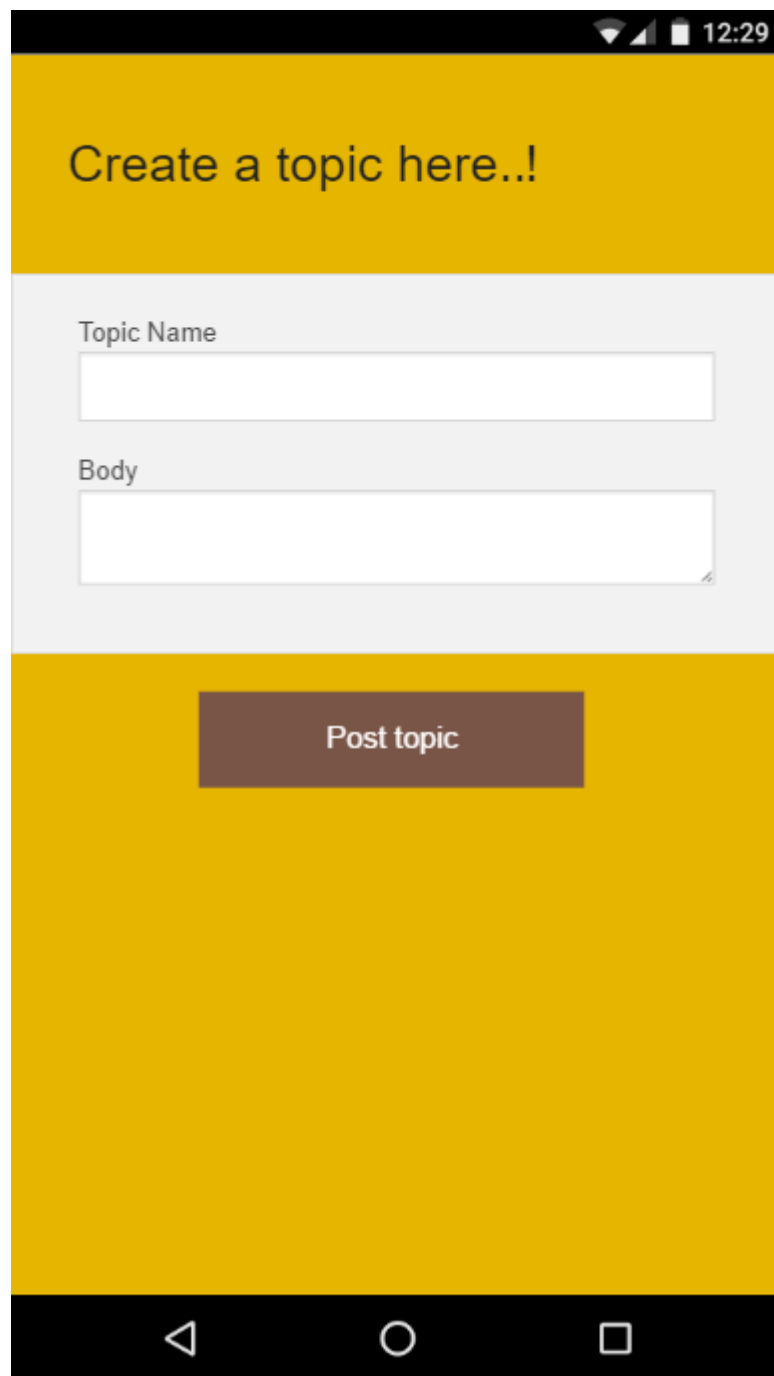


2.17 By clicking on 'discussion forum' user will be redirected to discussion forum, where users can post questions and any other user can answer for those posts.

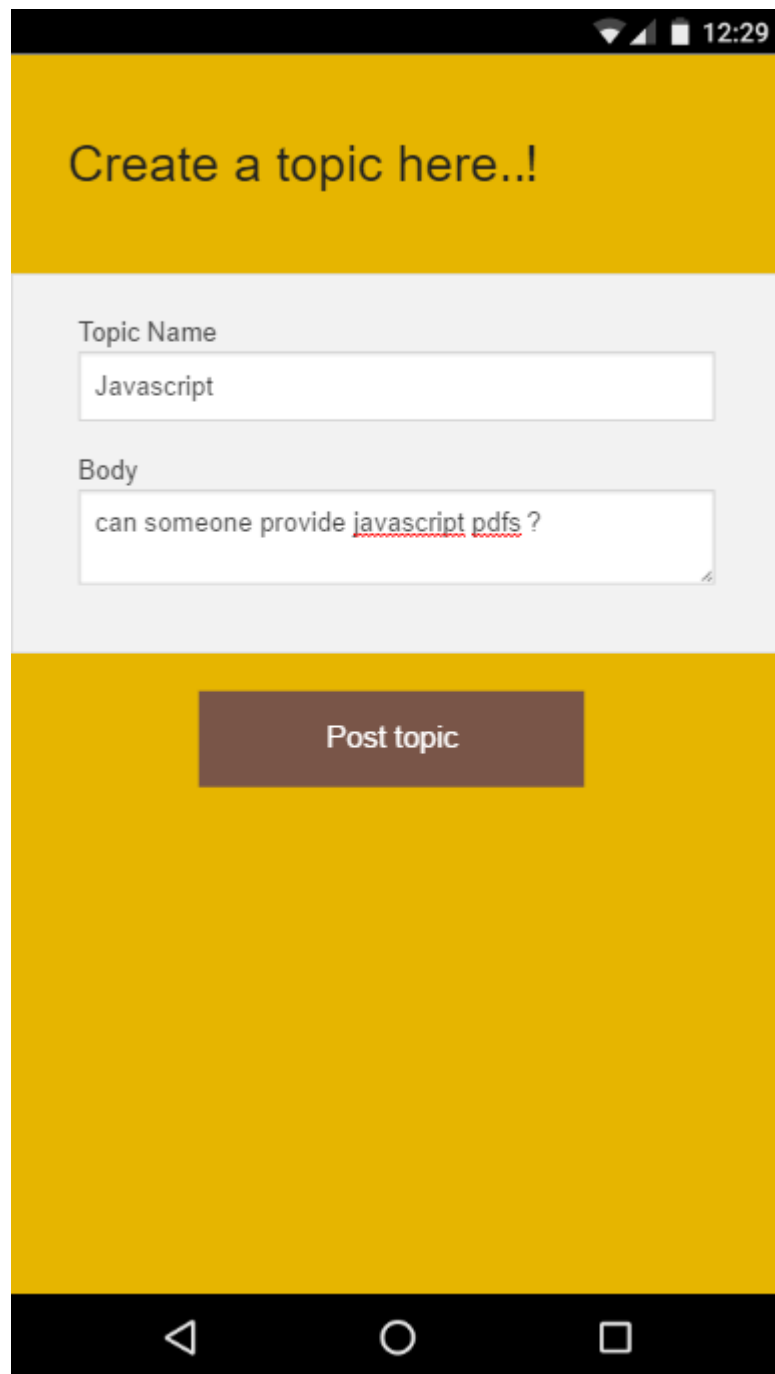




2.18 Any user can create post by clicking on 'create a topic' button.



The screenshot shows a mobile application interface for creating a new topic. The top status bar displays the time as 12:29. The main header is a solid yellow bar with the text "Create a topic here..!". Below this, there is a light gray rectangular area containing two input fields. The first field is labeled "Topic Name" and the second is labeled "Body". Both fields are empty. Below the input area, there is a large yellow rectangular button with the text "Post topic" in a dark brown font. The bottom of the screen shows the standard Android navigation bar with back, home, and recent apps icons.



The screenshot shows a mobile application interface for creating a new topic. At the top, a yellow header bar contains the text "Create a topic here..!". Below this, a light gray form area contains two input fields. The first field, labeled "Topic Name", contains the text "Javascript". The second field, labeled "Body", contains the text "can someone provide javascript pdfs ?". The word "javascript" in the body text is underlined with a red dashed line. Below the form area, a dark brown button with the text "Post topic" is centered. The entire interface is set against a yellow background. At the bottom, a black Android navigation bar is visible with standard icons for back, home, and recent apps. The top status bar shows the time as 12:29 and various system icons.

12:29

Create a topic here..!

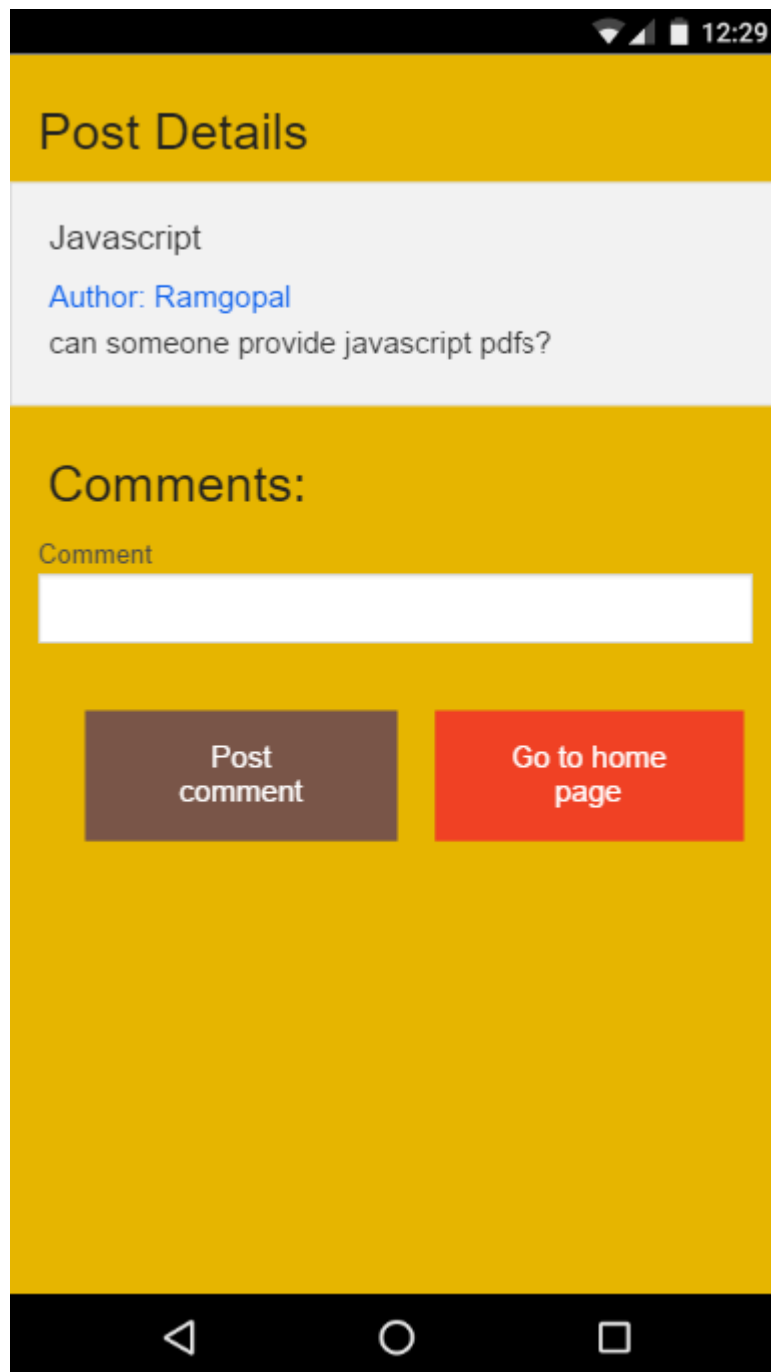
Topic Name

Javascript

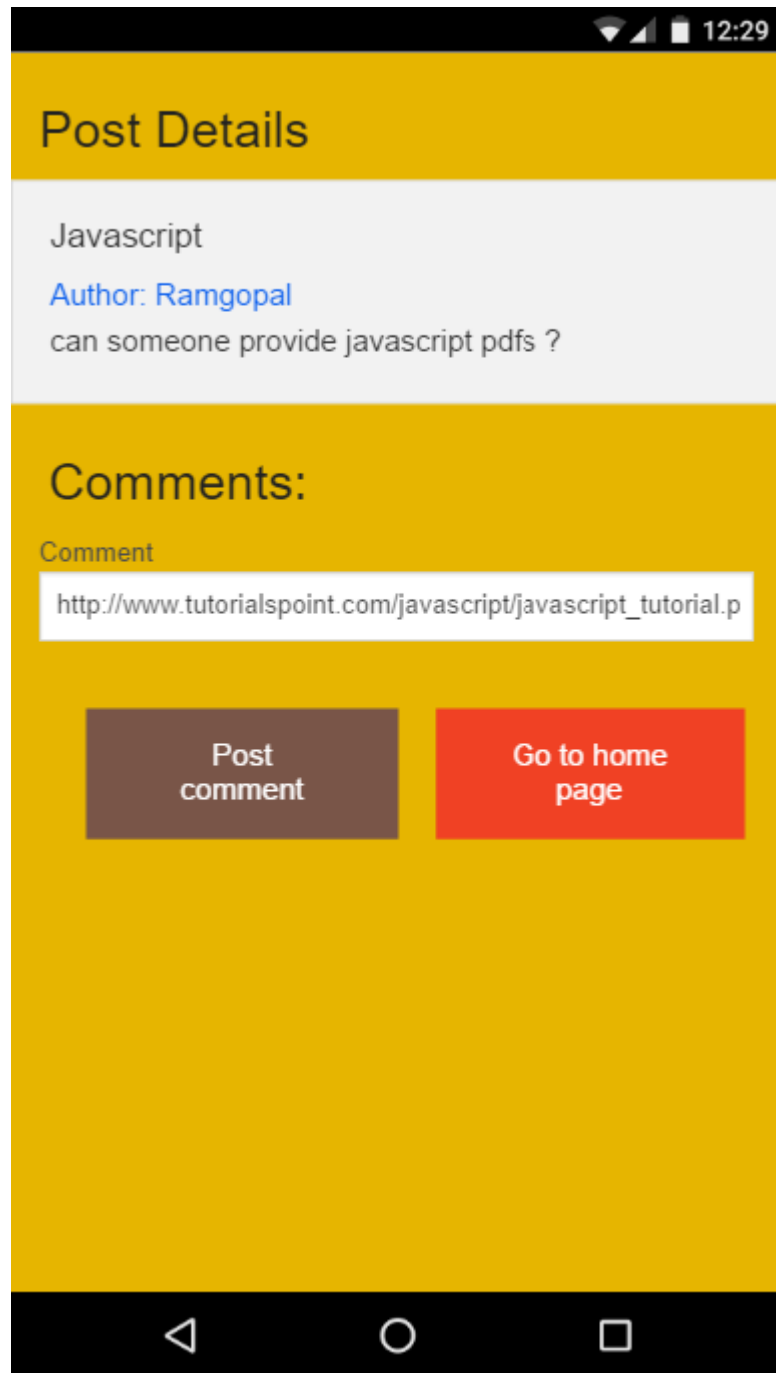
Body

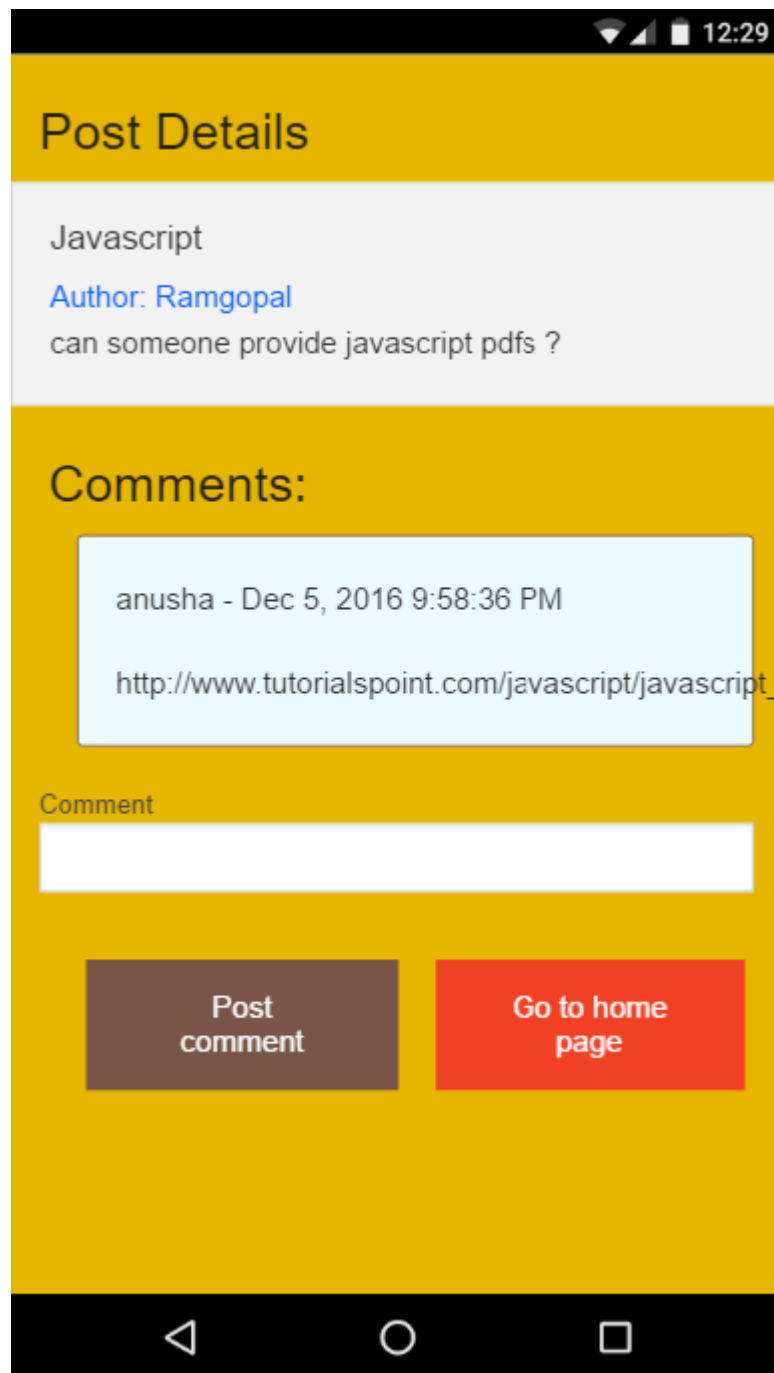
can someone provide javascript pdfs ?

Post topic

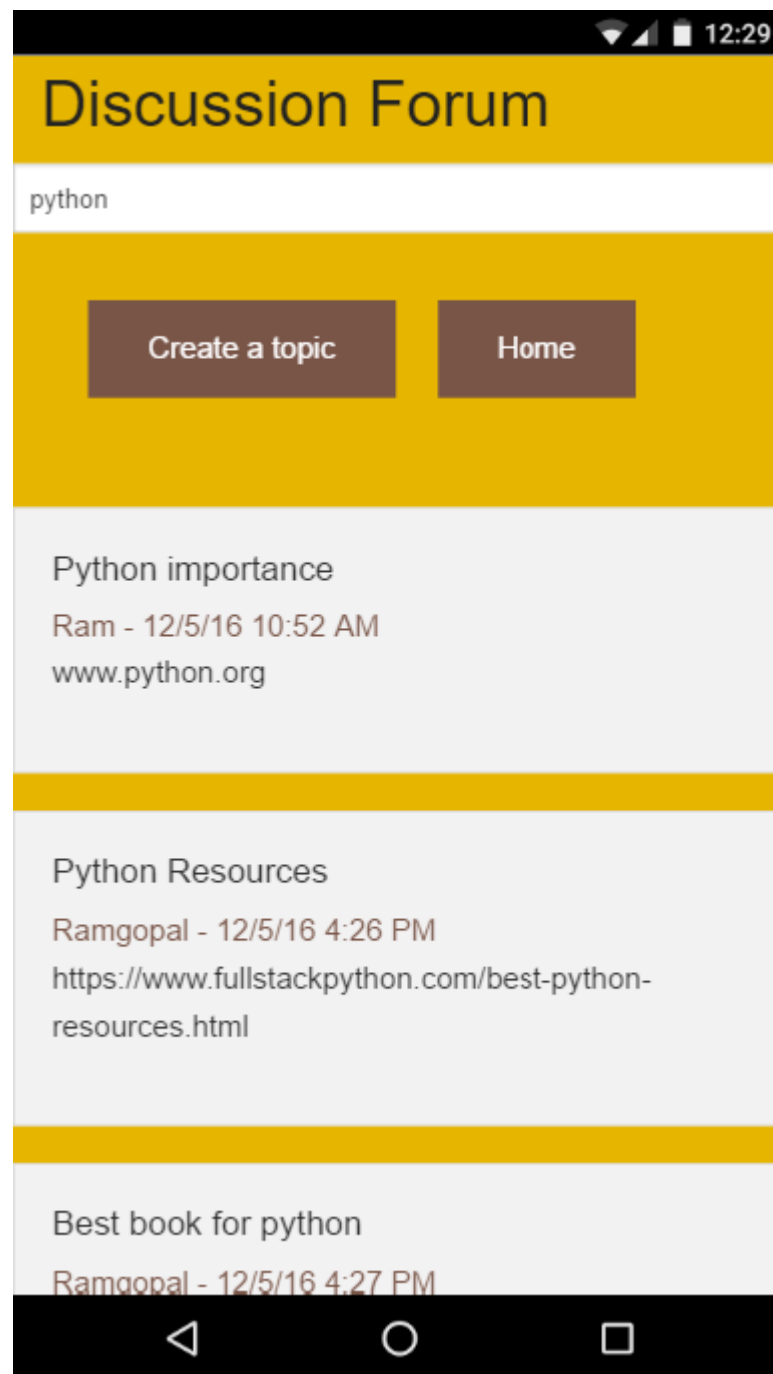


2.19 Any other user can comment on the existing post.

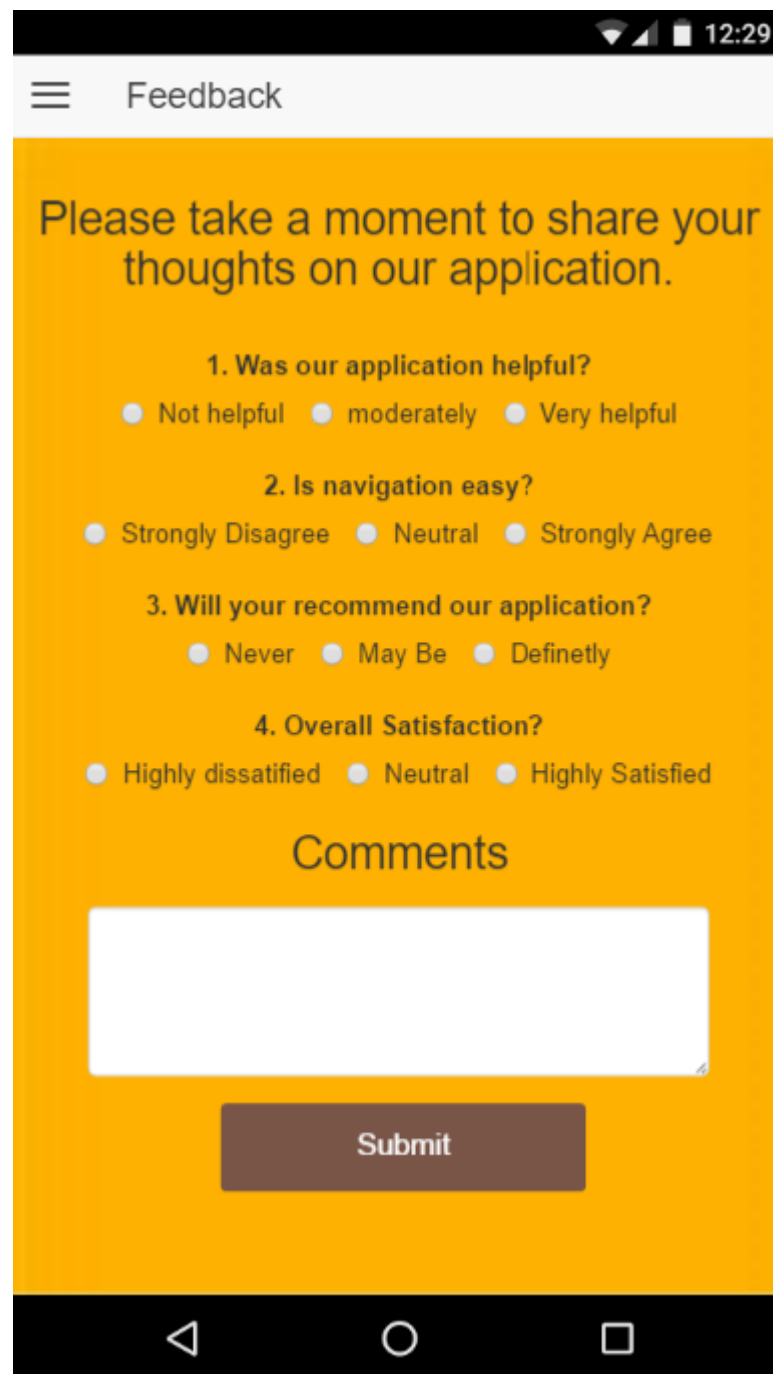




2.20 User can search for any existing post in the forum.



2.21 User can give feedback by clicking on ‘feedback’ button from the side menu.



The screenshot shows a mobile application interface for a feedback form. At the top, there is a black status bar with a Wi-Fi icon, a signal strength icon, a battery icon, and the time 12:29. Below the status bar is a white header bar with a hamburger menu icon on the left and the word "Feedback" in the center. The main content area has a yellow background. It starts with the text "Please take a moment to share your thoughts on our application." followed by four questions, each with three radio button options:

- 1. Was our application helpful?
☐ Not helpful ☐ moderately ☐ Very helpful
- 2. Is navigation easy?
☐ Strongly Disagree ☐ Neutral ☐ Strongly Agree
- 3. Will you recommend our application?
☐ Never ☐ May Be ☐ Definitely
- 4. Overall Satisfaction?
☐ Highly dissatisfied ☐ Neutral ☐ Highly Satisfied

Below the questions is a section titled "Comments" with a large white text input field. At the bottom of the form is a brown "Submit" button. The bottom of the screen shows a black navigation bar with three white icons: a back arrow, a circle, and a square.

12:29

Feedback

Please take a moment to share your thoughts on our application.

1. Was our application helpful?

☐ Not helpful ☒ moderately ☐ Very helpful

2. Is navigation easy?

☐ Strongly Disagree ☒ Neutral ☐ Strongly Agree

3. Will you recommend our application?

☐ Never ☐ May Be ☒ Definitely

4. Overall Satisfaction?

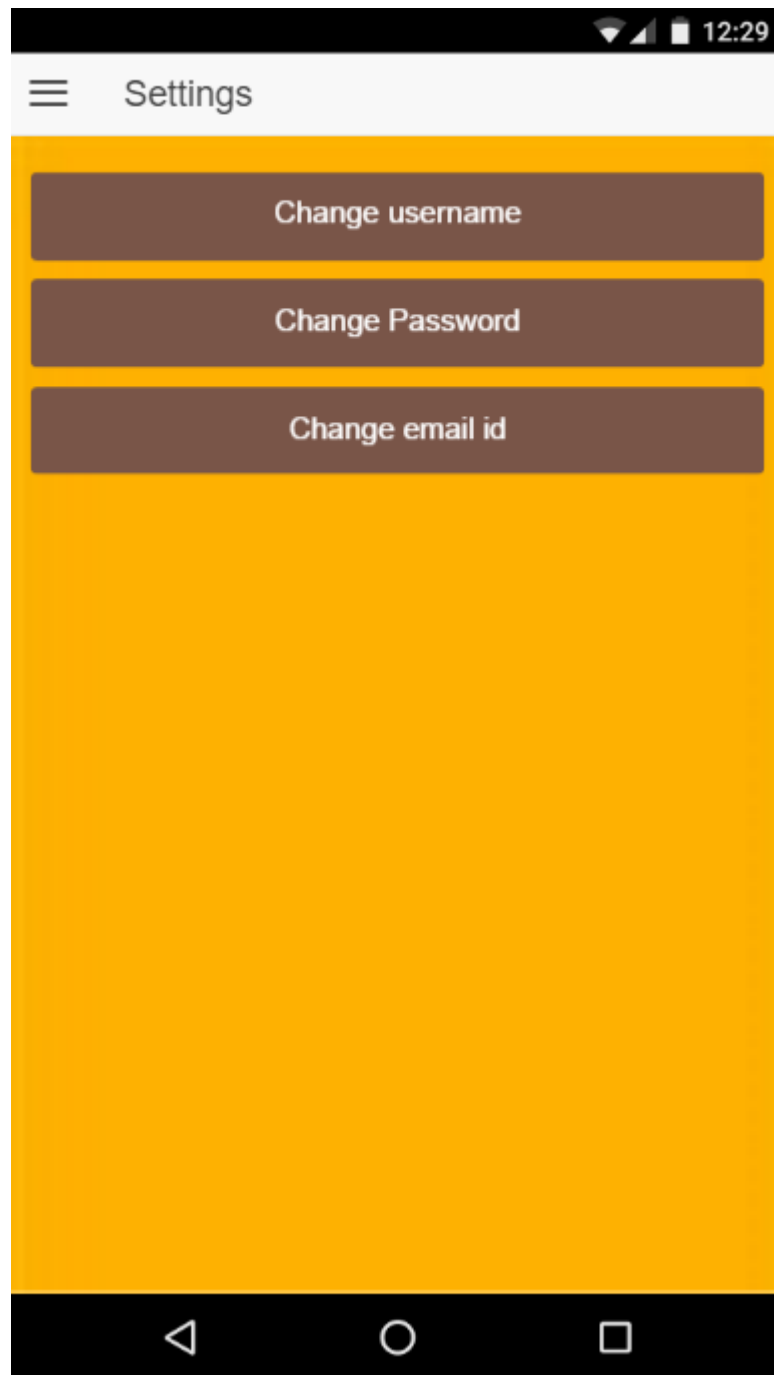
☐ Highly dissatisfied ☐ Neutral ☒ Highly Satisfied

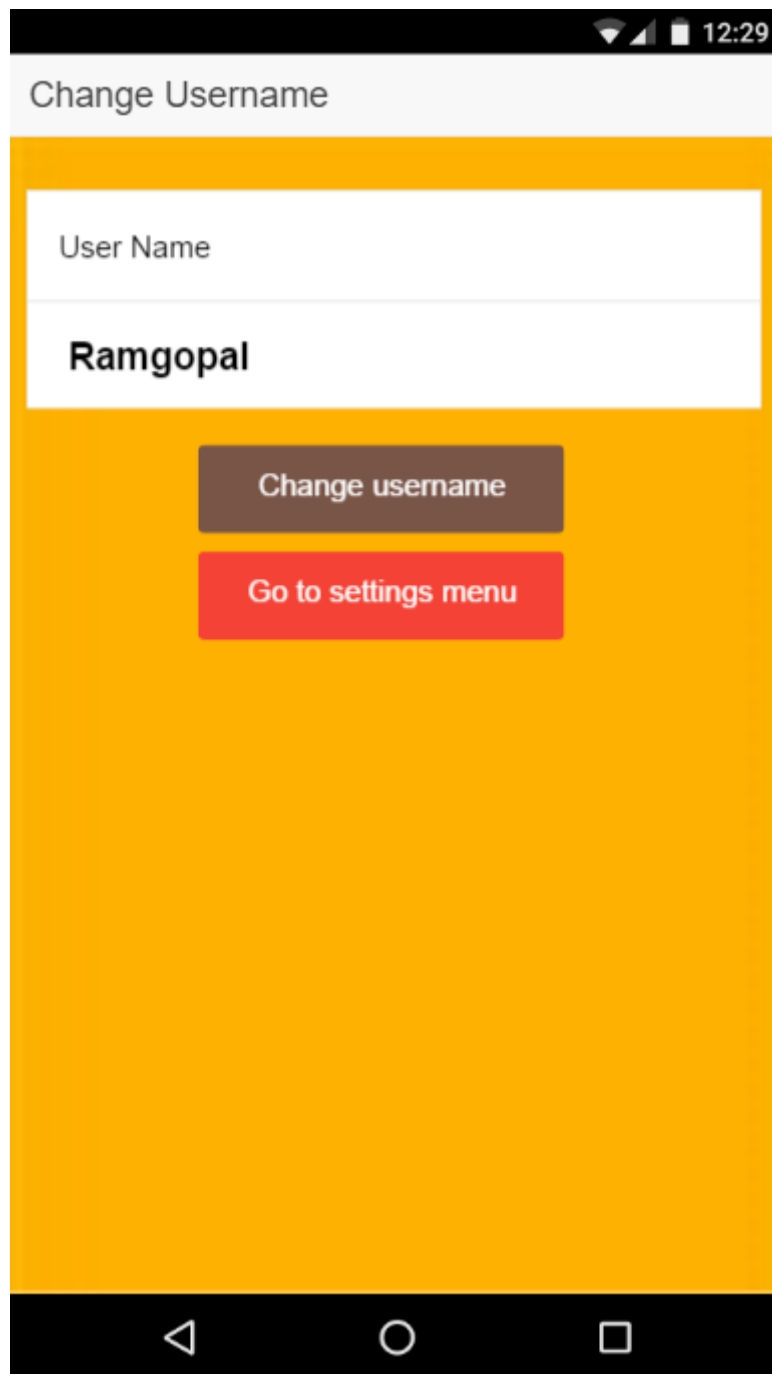
Comments

Good application.

Submit

2.22 User will be redirected to settings page by clicking on settings button from side menu.





12:29

Change Password

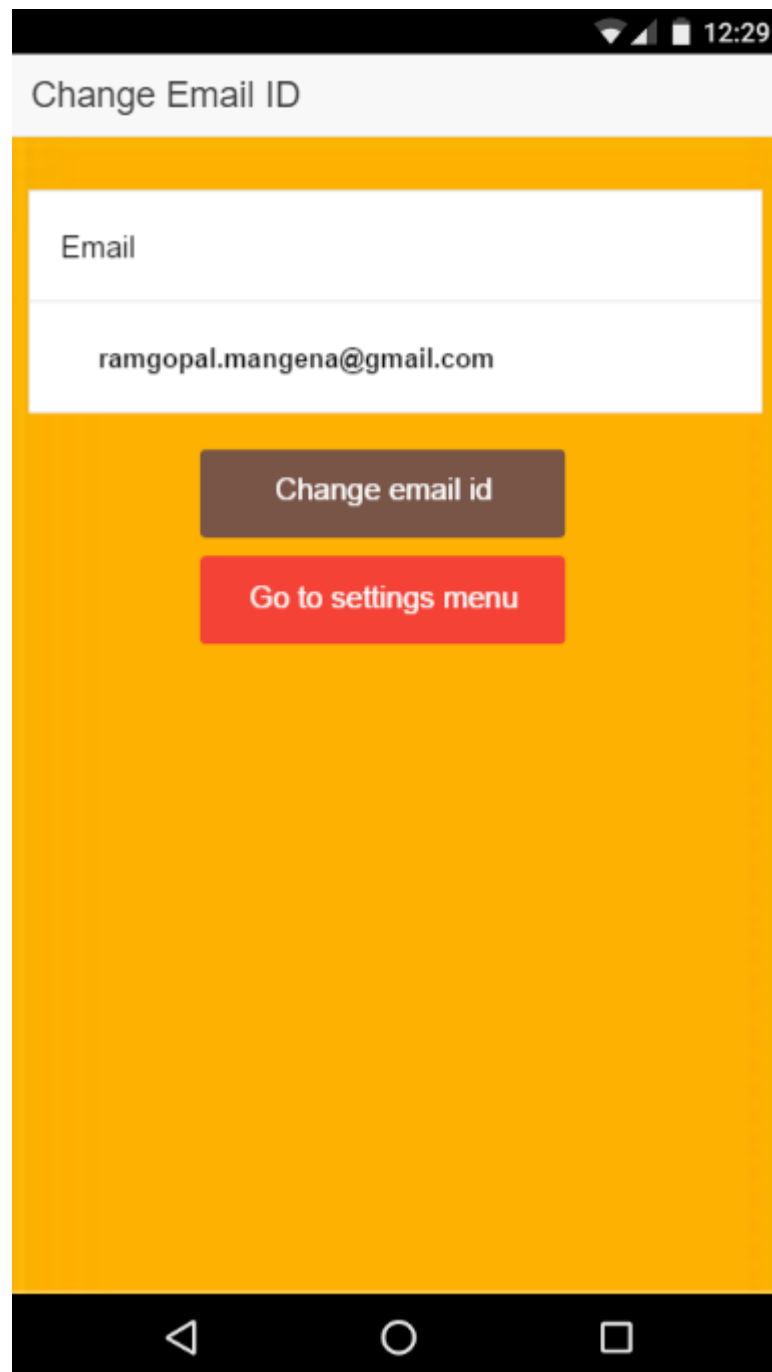
Please enter your old password here

Please enter your new password here

Please re-enter your new password here

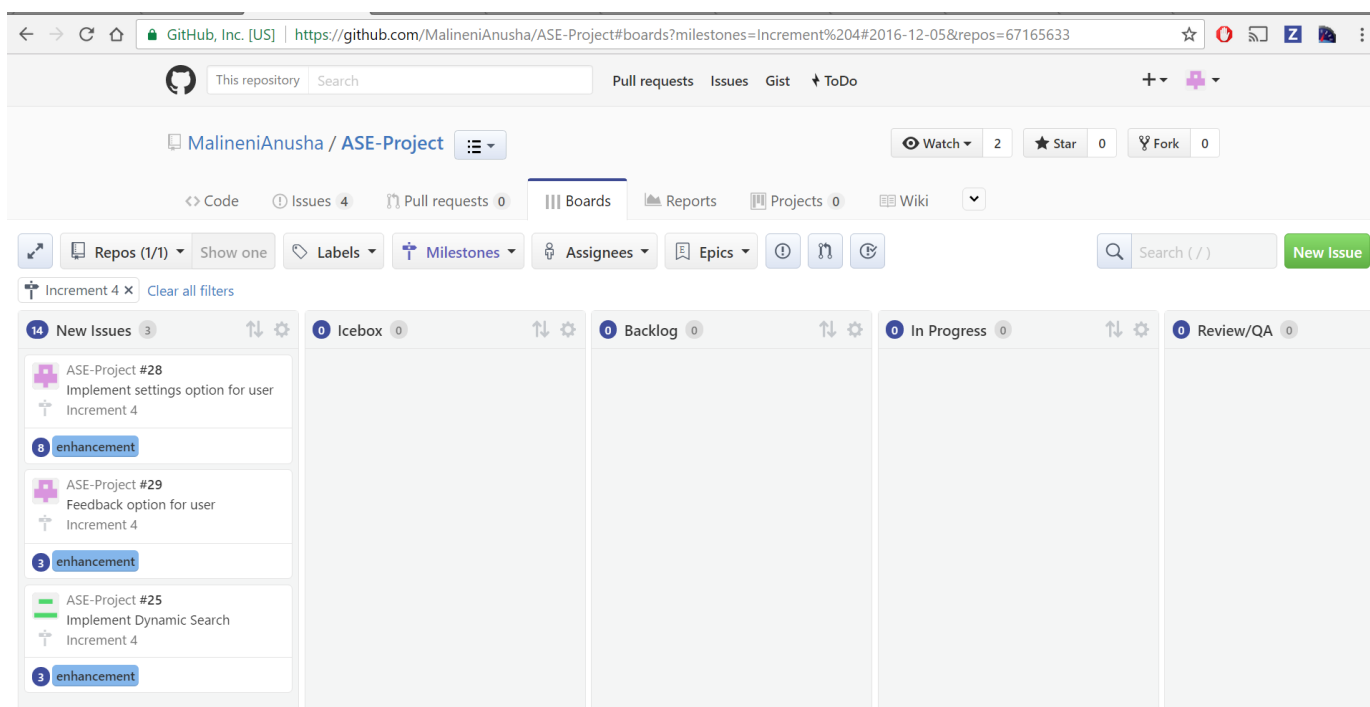
Change password

Go to settings menu



Project Management:

Project Management Report:



Final Project Evaluation:

We have started this project to enable the users to search for all the online resources using one app which includes video lectures, online courses information, Wiki pages, technical events in the location you searched. However, there are some backdrops in the project, where we tried to implement SlideShare API, we made it work for Android version, but when we changed the platform to Ionic we could not make it work, because of limitation of the API to platform, this could be mentioned as one of the challenges we faced. But we are satisfied with the design of our project which meets the requirement as it enables the user to search the online resources mentioned.

Agile process made our work easier when compared to other process models. Through Agile we can communicate seamlessly with brief meetings. This enabled us to work quickly towards the requirements.

3. Project proposal

3.1 Overall goal:

Main goal of this application is to provide all the available sources like wiki pages, videos, online courses, events and can discuss about any technical matters with any other users of the application.

3.2 Specific objectives (problem statement)

3.2.1. To create a unique platform where the users can get all the available resources related to any course in the field of computer science.

3.2.2. By searching for a specific course, this application will retrieve available resources in the form of videos, wiki pages, online courses and events.

3.2.3. Maintaining a discussion forum where users can discuss about any technical updates among themselves.

3.3 Specific features

3.3.1 Search for Wiki's: This feature enables the user to search topics on

Wikipedia related to any course.

3.3.2 Search for videos: This feature enables the user to search for top videos related to any course.

3.3.3 Search for events: This feature enables the user to search for any technical events near to the given place.

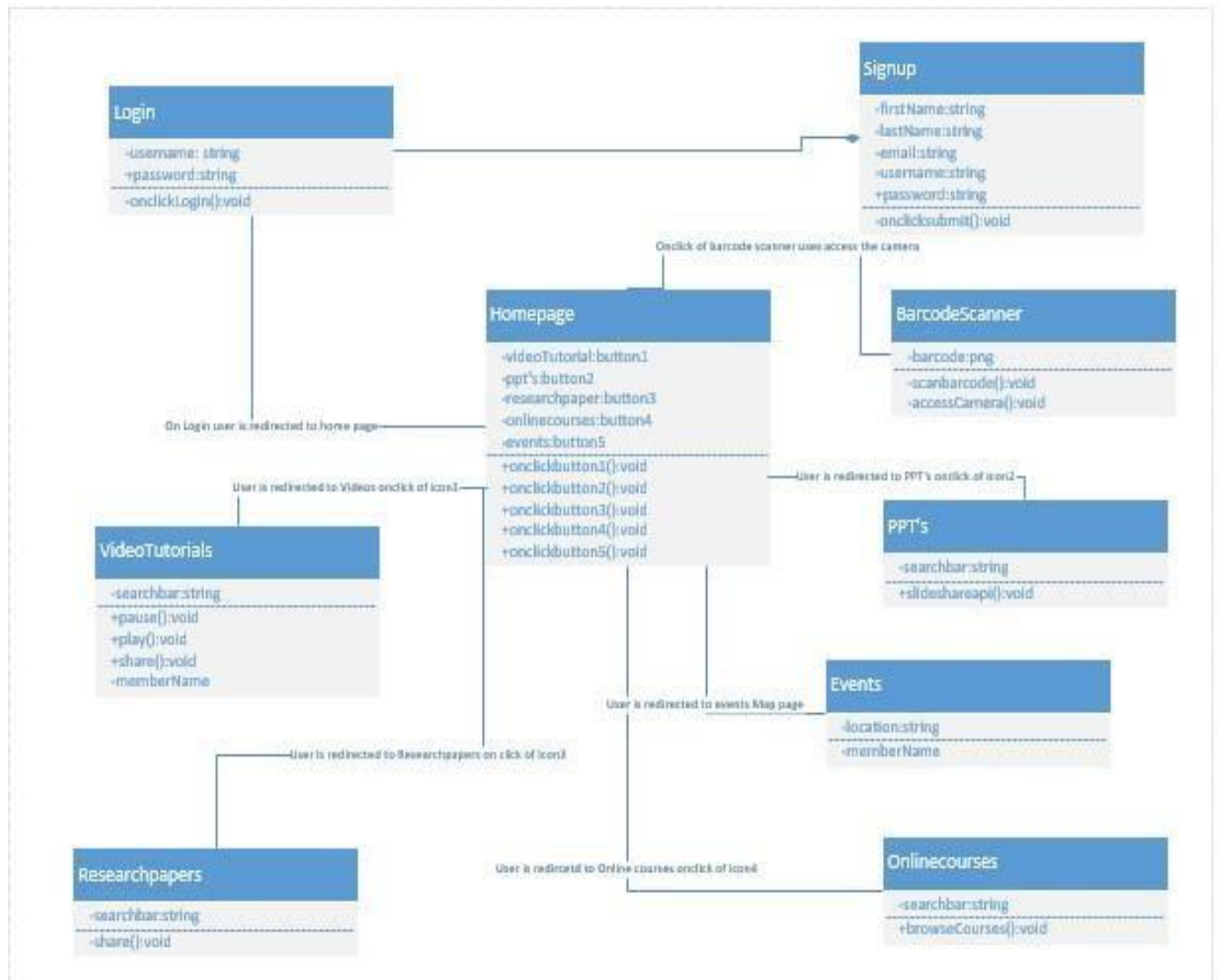
3.3.4 Search for online courses: This feature enables the user to search for available online courses related to any course.

3.3.5 Discussion forum: User can discuss among themselves regarding any technical topics and any other user can reply to the existing post.

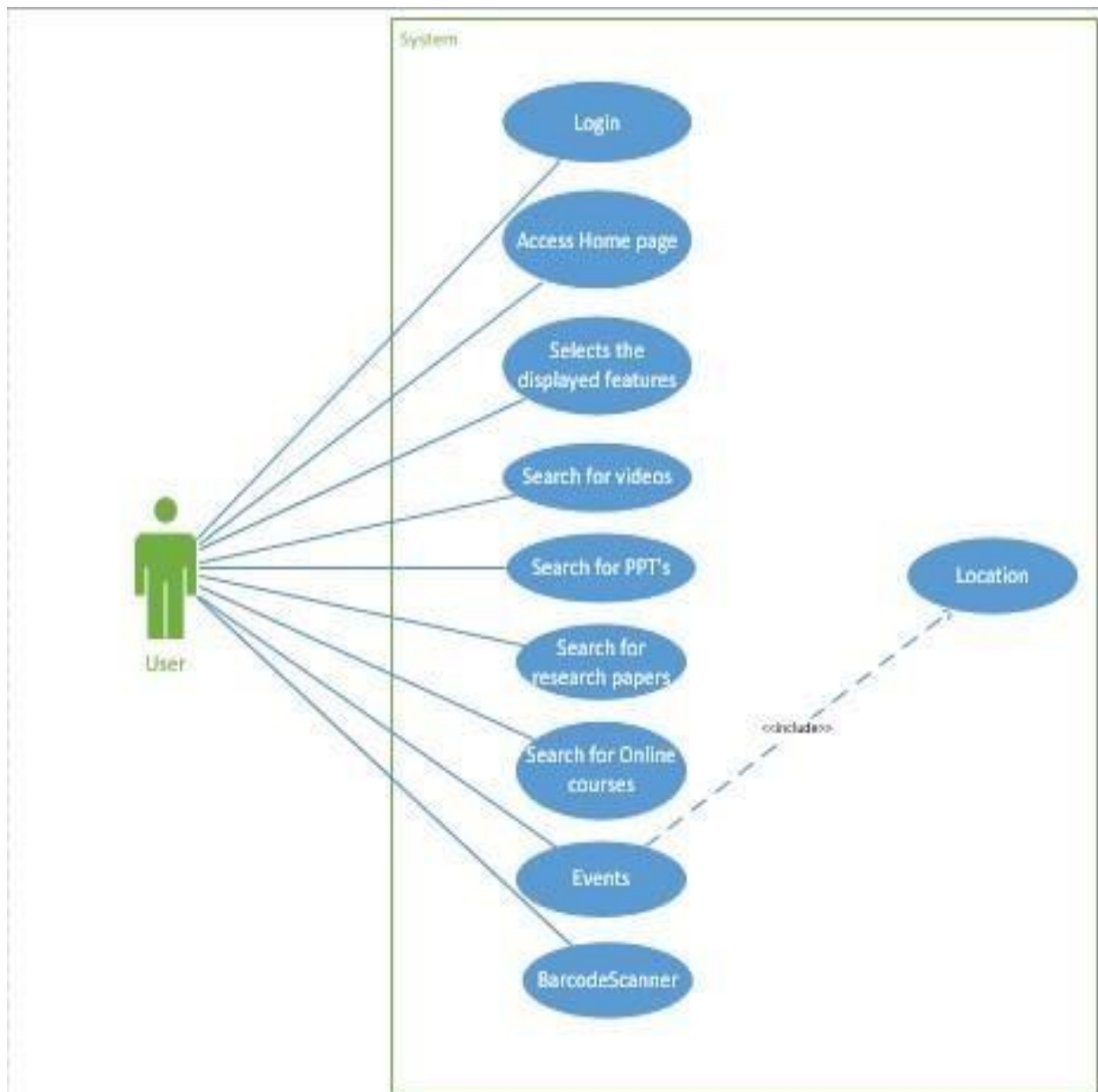
3.4 Significance The application provides the wide range of resources like videos, wiki pages, online courses, technical events at a single point.

4.Project Plan

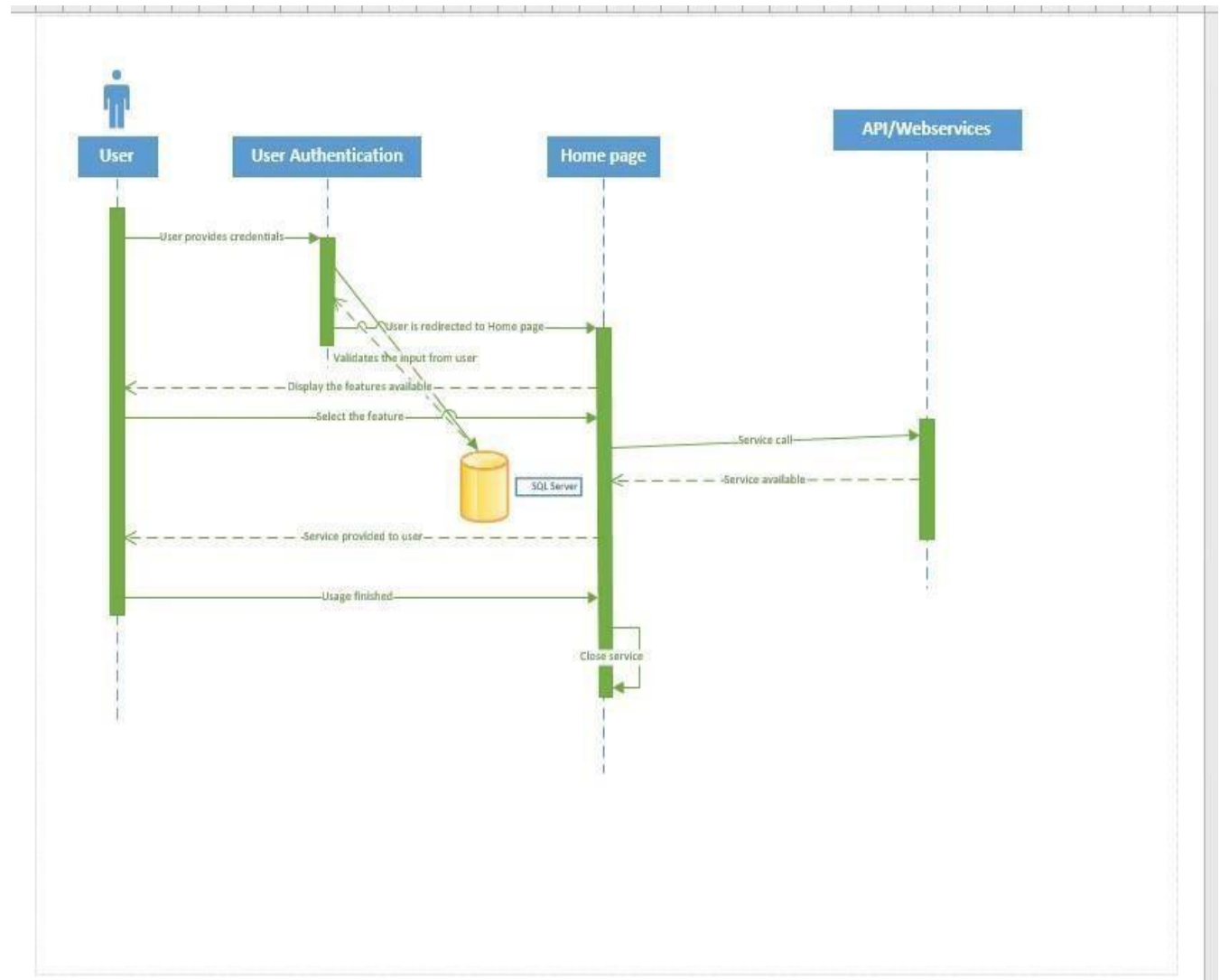
4.1 Class Diagram:



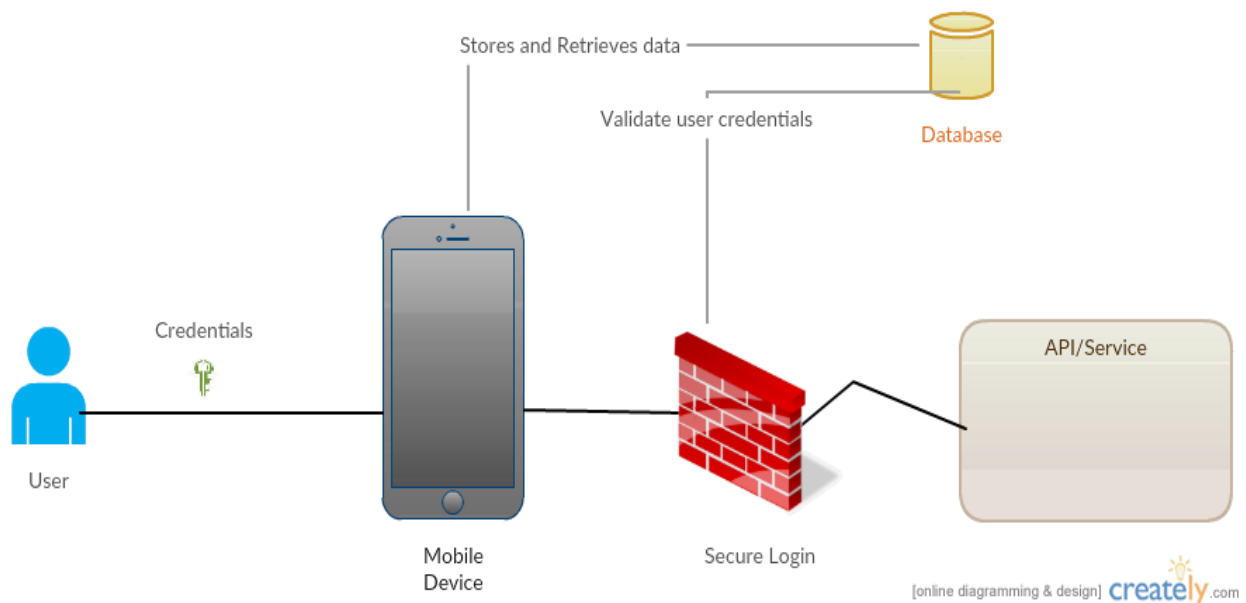
4.2 Use Case Diagram:



4.3 Sequence Diagram



4.4 Architecture Diagram:



5. First Increment Report

Implementation:

In the first increment, we have implemented the following features.

- Login page
- Registration page
- Facebook OAuth login
- Home page

We have implemented these features in android using android studio.

First increment report:

<https://github.com/MalineniAnusha/ASE-Project/blob/master/Documentation/Project%20Plan%20and%20Increment%201.pdf>

6. Second Increment Report

Implementation:

In the second increment, we have implemented the following features.

- SlideShare API
- Eventful API
- Bar code Scanner
- Improvised the user interface of home page, login page and registration page.

We have implemented these features in android using android studio.

Second increment report:

<https://github.com/MalineniAnusha/ASE-Project/blob/master/Documentation/ProjectSecondIncrement.pdf>

7. Third Increment Report

Implementation:

In the third increment, we have developed the application in ionic framework. Because of dependency issues in android, we have moved our application to ionic framework.

- YouTube API
- Eventful API
- Wiki page
- Profile Retrieval
- Mongo DB integration
- Integrated login and registration with MongoDB.
- Improvised the user interface of the application

Third increment report:

<https://github.com/MalineniAnusha/ASE-Project/blob/master/Documentation/Project%20Third%20Increment.pdf>

8. Fourth Increment Report

Implementation:

In the fourth increment, we have implemented the following features

- Integrated Discussion Forum with application
- Search mashup for YouTube and wiki
- Integrated firebase with discussion forum
- Feedback from user
- Settings that include reset options for user details.
- Improvised the user interface of the application.

Fourth increment report:

<https://github.com/MalineniAnusha/ASE-Project/blob/master/Documentation/Project%20Fourth%20Increment.pdf>

• **Test Cases for Login and Signup page:**

Case	Test case Description	Expected Result	Actual Result
Login	Enter invalid username and password	Error message should pop up saying invalid credentials.	PASS
Login	Enter invalid username and valid password	Error message should pop up saying invalid credentials.	PASS
Login	Enter valid username and invalid password	Error message should pop up saying invalid credentials.	PASS
Login	Enter valid username and password	Page should redirect to Home page	PASS
Signup	Email id format should end with @mail.com	Give error message incorrect email id format	PASS
Signup	Password of length 8 characters	Gives error message password is weak	PASS
Signup	Password and confirm password should match	If this succeeds it redirects to login page	PASS
Eventful	On searching the location	Display the nearby events	PASS
Youtube	On searching for the videos	Display list of videos related to search word	PASS
Wikipedia	On searching the content on the Wikipedia	Displays list of topics related to search results	PASS

GitHub wiki page URL:

<https://github.com/MalineniAnusha/ASE-Project/wiki/Project-Final-Increment>

YouTube URL:

<https://www.youtube.com/watch?v=XqjHIozLcoc&feature=youtu.be>

9. Project Management

Implementation status report

Technologies Used: Ionic Framework, HTML, CSS, JS, Angular JS.

Work Completed

- Design and Architecture of the Application
- Login and Registration using Mongo DB.
- Implemented on Eventful API
- Implemented YouTube API.
- Implemented Coursera API.
- Implemented Wiki search API.
- Implemented search mashup.
- Integration firebase in discussion forum.
- Improving the User Interface of the application.
- Implemented discussion forum in application.

Contributors:

Achyuth	Sujitha	Ram Gopal	Anusha
YouTube API to retrieve the list of videos.	Wikipedia API to retrieve data from Wiki.	Coursera API to retrieve coursera details.	Eventful API to retrieve, technical events in the location
App Login & Facebook Login	Search mashup results from YT & WIKI.	User registration module.	User profile retrieval
UI for login page, Registration page.	Reset enable in settings	UI for Home page & other pages	Feedback module
Retrieval of data in Discussion forum.	Discussion forum search functionality.	Discussion forum firebase integration & module to post a discussion	Discussion forum, post comment from another user module

10. Future Work

- Could add Journal papers related to the topic search, which can be rendered as feeds in the app based on the search keyword.

11.Bibliography

- <http://stackoverflow.com/>
- <https://forum.ionicframework.com>
- <https://developers.facebook.com/>
- <https://developers.google.com/youtube/>
- <https://github.com>