

Interactive Quiz Application (Team 12)

Team Members:

Class ID	Name
26	Makani,Sai Teja
38	Neelima-Putta,Divya-Sai-Lakshmi
9	Chinthakindhi,Nikhila
62	Arun

Introduction:

Interactive Quiz application is a dynamic application which facilitates users to take quizzes online through web portal. Details of the tests taken with their results are accessible to the user at any time.

Users can take tests, retake tests and view written tests results in this application.

Objectives:

- Objective is to create user friendly Interactive quiz application with register page, login page and home page using ionic framework.
- Home page would contain tabs for user profile and to take online quiz.
- User would receive an instant score as soon as he/she is done with the quiz.

Features:

- User can select topic for quiz from the various topics displayed in the home page.
- User can listen to questions in their quizzes while taking test.
- Timer is displayed on the screen for user's comfort.
- Scribble pad is available for users for scratch work. It is saved for user's future use to analyse wrong answers if any.
- Application is built on ionic framework.

Detailed design of features:

- **Wire Frames:**

Wire frame design for Start/Index page of the Interactive quiz application is as follows:

LOGIN

```
graph TD; subgraph LOGIN; direction TB; U[Username] --- P[Password]; P --- L[Login]; L --- C[Or Create account]; C --- F[Login with Facebook]; end
```

The wireframe for the LOGIN page consists of the following elements:

- A rectangular input field labeled "UserName".
- A rectangular input field labeled "Password" positioned below the "UserName" field.
- A small rectangular button labeled "Login" positioned below the "Password" field.
- A rectangular button labeled "Or Create account" positioned below the "Login" button.
- A rectangular button labeled "Login with Facebook" positioned below the "Or Create account" button.

Wire frame design for sign up page of the Interactive quiz application is as follows:

SIGNUP

User Name

Email ID

Phone No

Password

Confirm PWD

Sign Up

Wire frame design for profile page of the Interactive quiz application is as follows:

PROFILE

UserName

Email ID

Phone Number

Number of Exams Taken:
Link of that exam
Subject

Wire frame design for quiz selection page of the Interactive quiz application is as follows:

SELECT SUBJECT

C Language

Java

Angular JS

MongoDB

Next

Wire frame design for quiz questions page of the Interactive quiz application is as follows:

QUIZ

Question?

Option A

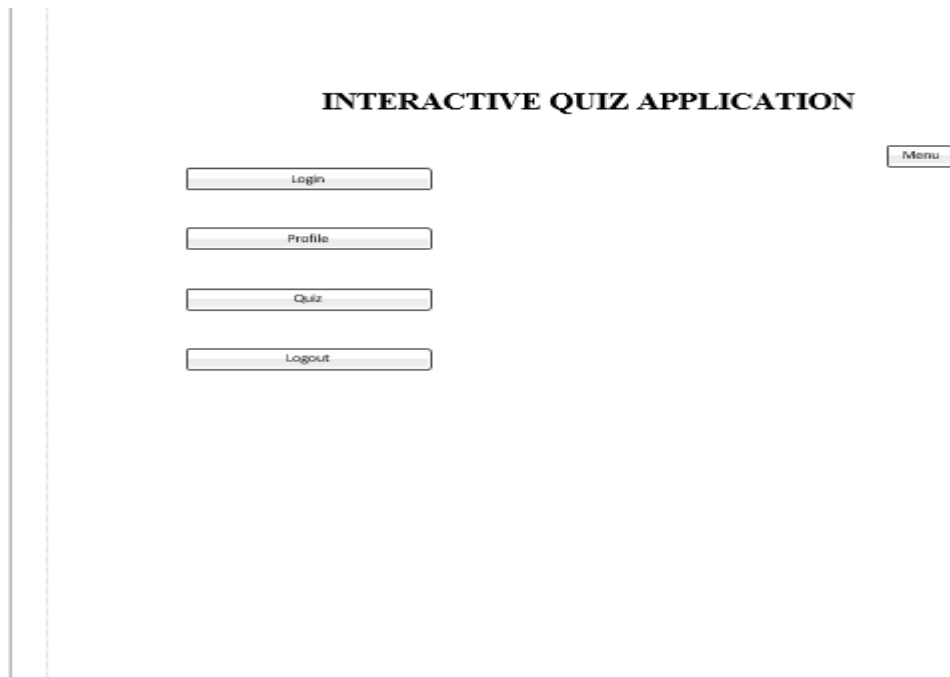
Option B

Option C

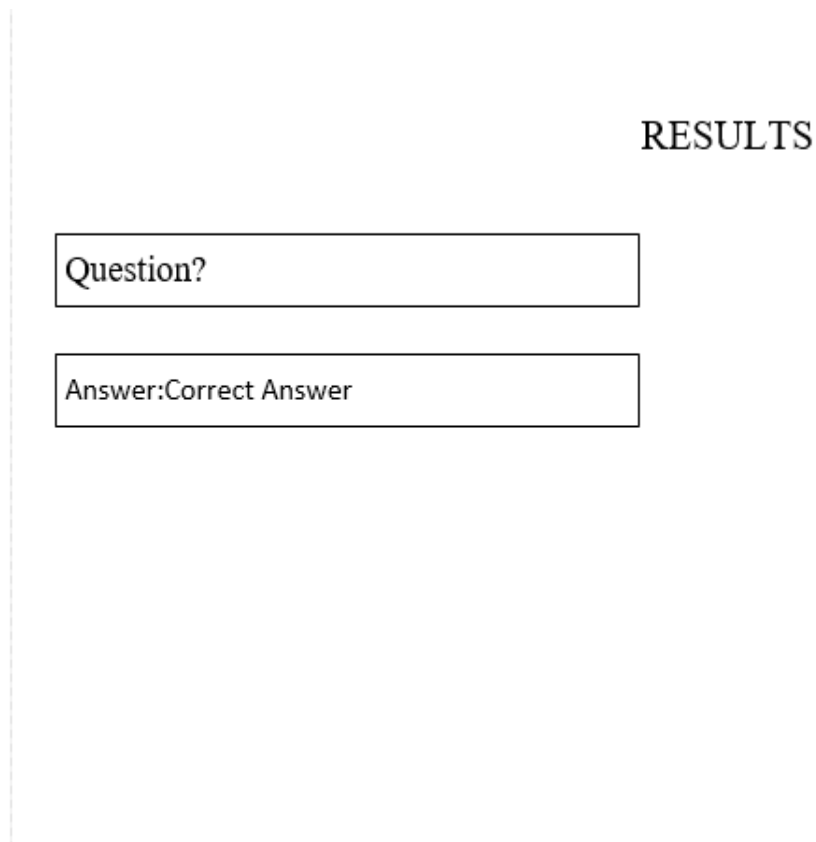
Option D

Next Submit

Wire frame design for tabs available in Interactive quiz application is as follows:

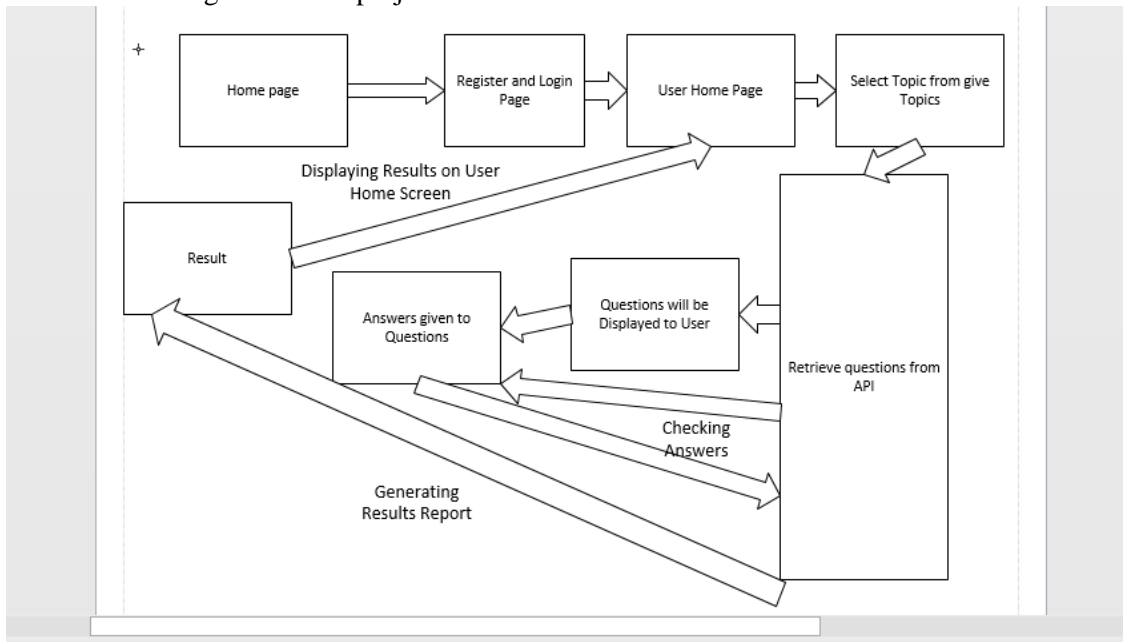


Wire frame design for quiz history page of the Interactive quiz application is as follows:



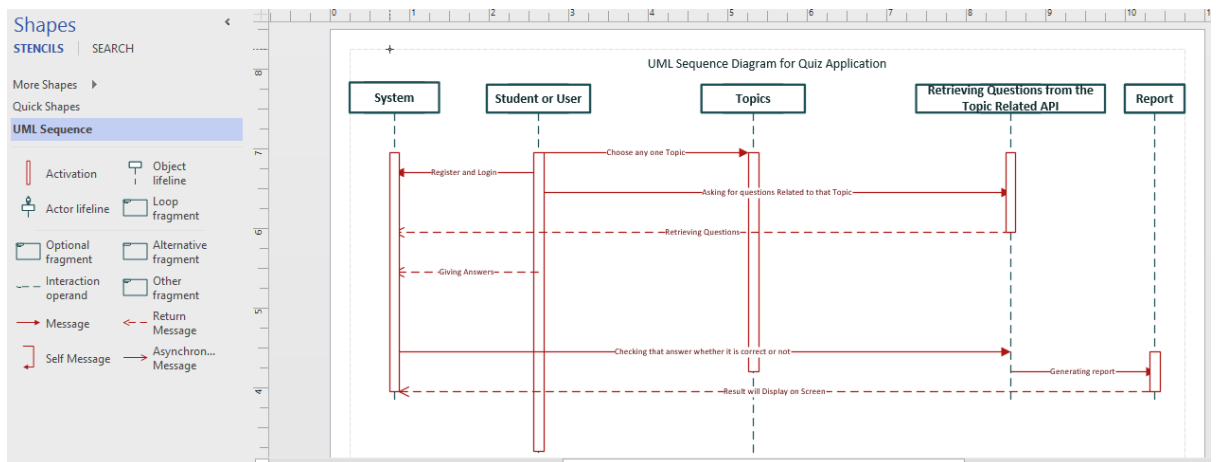
- **Architectural diagram:**

Architectural diagram for the project is as follows:



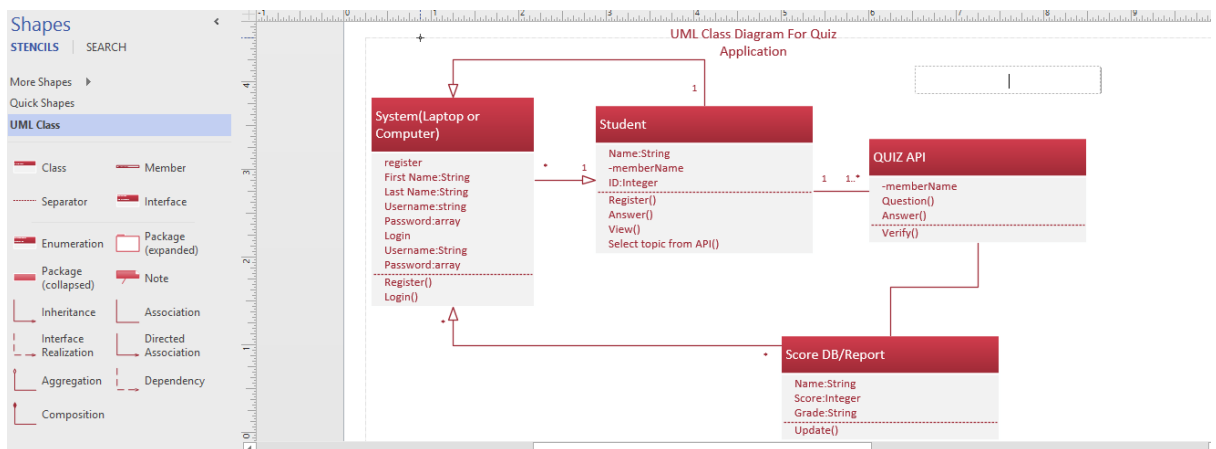
- **Sequence diagram:**

Sequence diagram for the project is as follows:



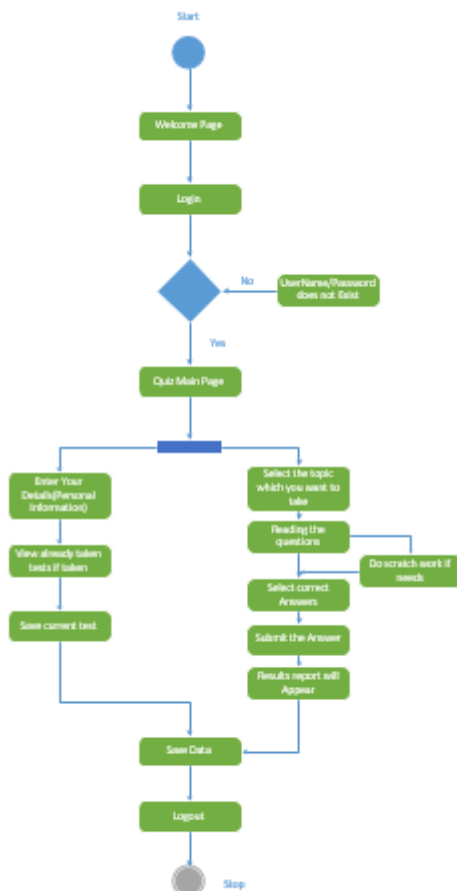
- **Class diagram:**

Class diagram for the project is as follows:



- **Activity diagram:**

Activity diagram for the project is as follows:



▪ **User story:**

- Students/users can take online quizzes through this Interactive quiz application.
- They can select any domain from the listed domains in the home page to take test.
- Users can listen to the questions on clicking speak button.
- Personal information can be edited in profile page.
- Test score is provided immediately after the quiz is completed.
- Users can assess their mistakes by the answers shown after the test.

▪ **Use case:**

- User must register himself/herself in the web portal.
- Upon successful registration user can login into the portal.
- After logging in user has option to select domain among the domains listed, to take test.
- Upon selecting domain, user can take tests and view scores after completing the tests.

▪ **Service description:**

- Interactive quiz application provides quizzes to the users.
- Users can take tests and view results after the test.
- As results are provided instantly users can assess their mistakes.
- Users can listen to questions in the quizzes.
- Scribbling pad is provided for scratch work.
- Timer is displayed on the screen.

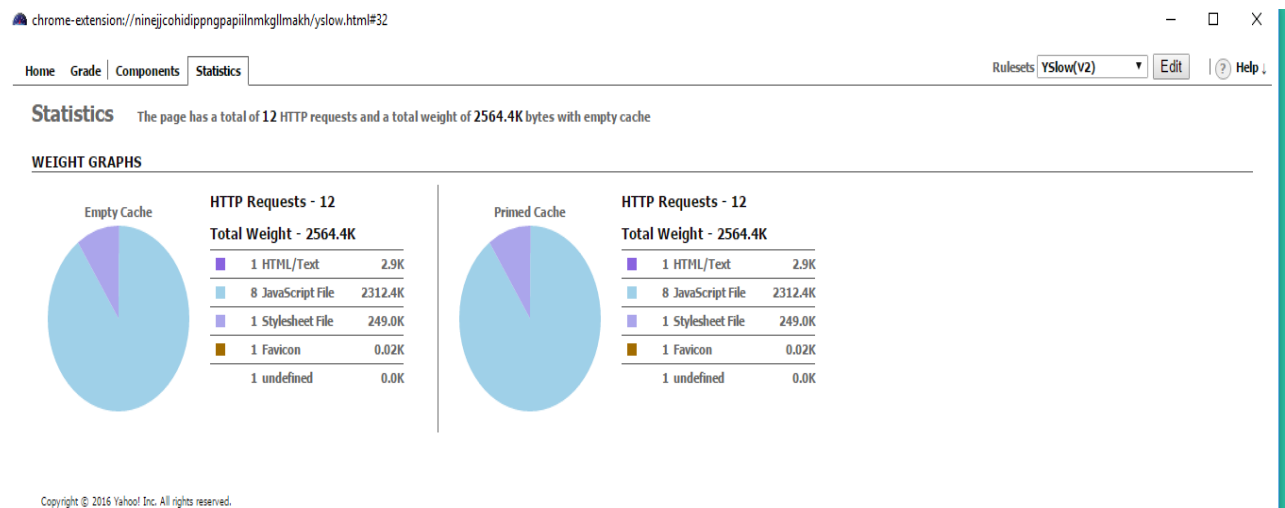
Testing:

The following are the unit test cases and their results:

S.No	Test case	Description/Process	Expected result	Actual result	Pass/Fail
1	Registration	User has to register in registration page	Registration has to be successful	Registration is successful	Pass
2	Registration	Invalid email ID	Error has to be shown stating invalid email ID	Error has been shown stating invalid email ID	Pass
3	Registration	Password criteria has to be met	Error has to be shown when password length criteria is not met	Error has been shown when password length criteria is not met	Pass
4	Log in	User has to login with valid credentials	Login has to be successful	Login successful	Pass
5	Log in	User has to login with invalid credentials	Error has to be shown stating invalid credentials	Error has been shown stating invalid credentials	Pass

6	Quiz selection	User can select any topic among the topicz listed for quiz	Quiz has to get started on the selected topic	Quiz has got started on the selected topic	Pass
7	Quiz history	Users quizeez history is stored	Quizzes written by user has to get saved	Quizzes written by user has got saved	Pass
8	Tabs	List of options available in the app like login page, logout, profile, quizzes are shown in the tab icon	Login page, logout, profile, quiz has to be shown in the tab icon	Login page, logout, profile, quizzes are shown in the tab icon and they are redirected to respective pages on selecting them	Pass
9	Facebook login	User can login with Facebook	User has to be logged in using Facebook login	User has successfully logged in using Facebook login	Pass
10	Profile	User is able to view his/her profile	User has to be able to view his/her profile	User is able to view his/her profile	Pass

The following is the performance Yslow result:



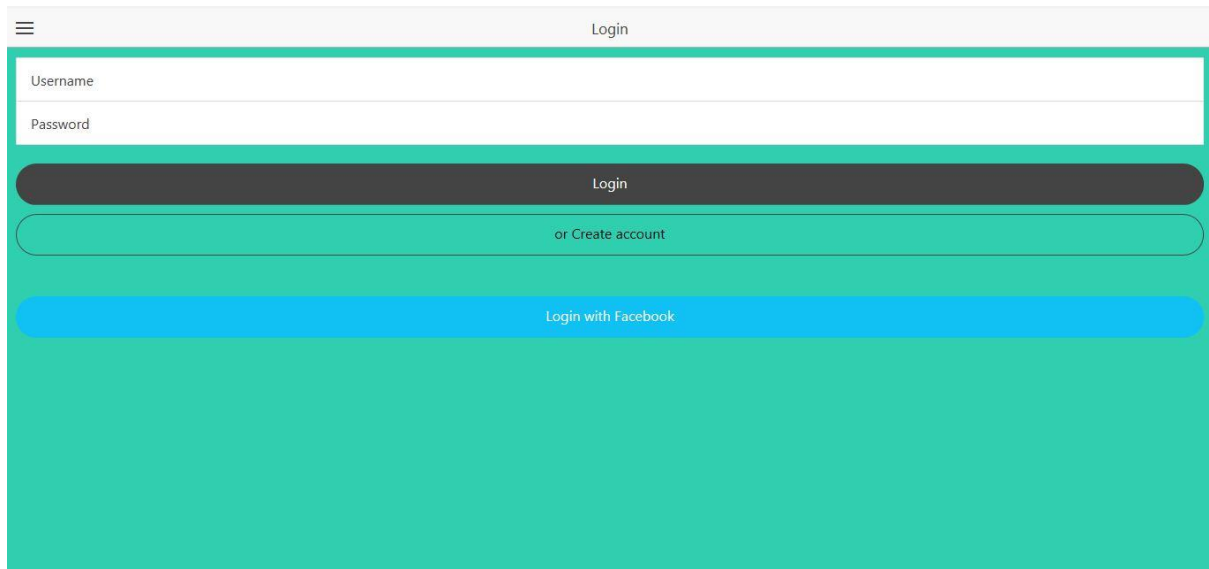
Implementation:

- **Mobile client implementation:** This app has been built on ionic framework and hence is compatible with both web and android mobiles.

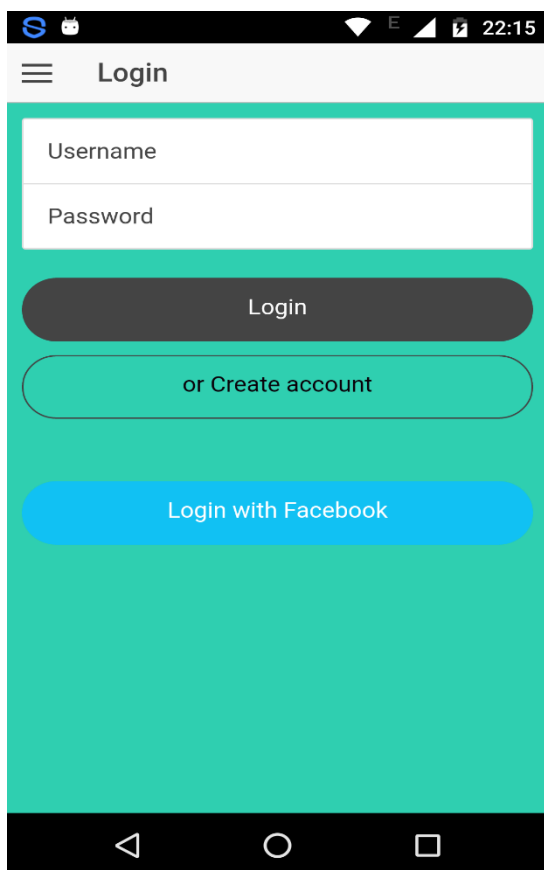
Deployment:

Deployed code screenshots are attached below:

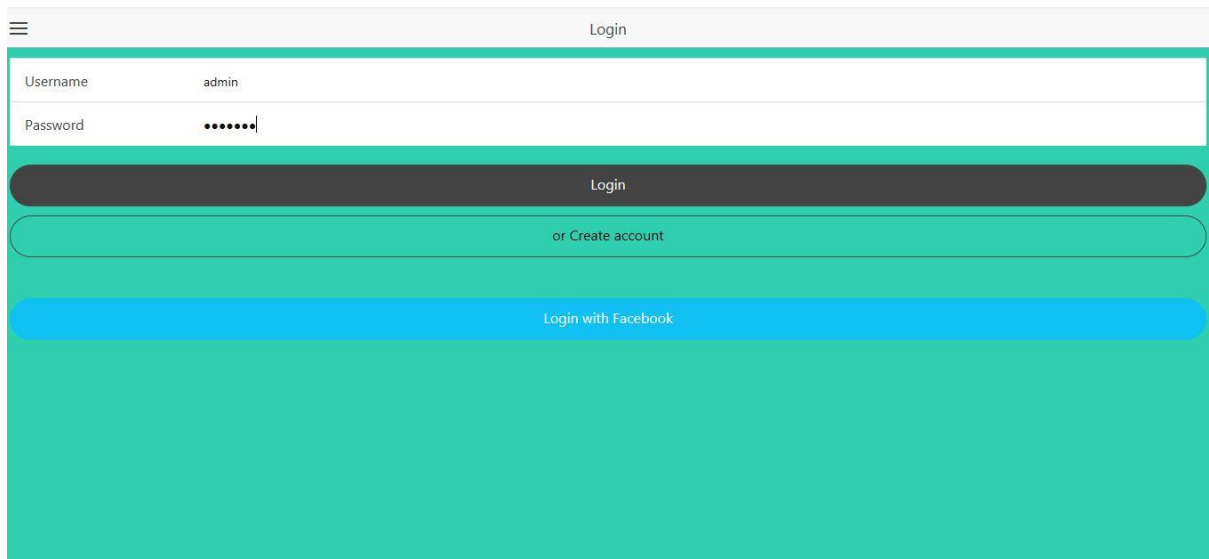
Index/start Page in web Screenshot



Index/start Page in Android Screenshot



Login Page with Credentials in web Screenshot



A screenshot of a web browser displaying a login page. The page has a teal background. At the top, there is a light gray header with a hamburger menu icon on the left and the word "Login" on the right. Below the header, there are two input fields: "Username" with the text "admin" and "Password" with masked characters ".....". Below these fields are three buttons: a dark gray "Login" button, a teal "or Create account" button, and a blue "Login with Facebook" button. The bottom of the page is a solid teal color.

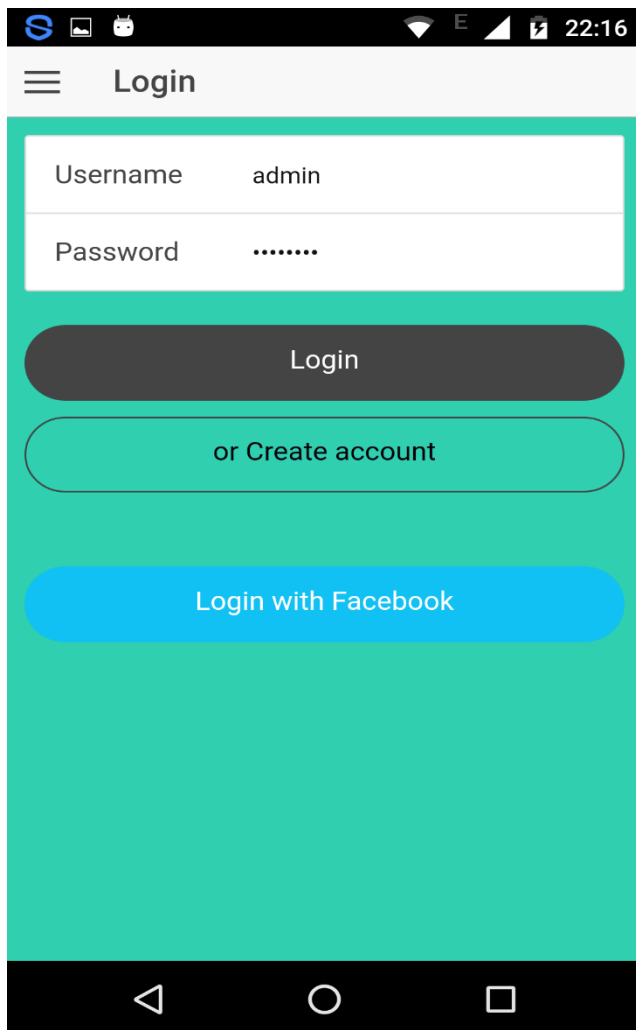
Username	admin
Password

Login

or Create account

Login with Facebook

Login Page with Credentials in Android Screenshot



A screenshot of an Android mobile application displaying a login page. The top status bar shows icons for signal, Wi-Fi, battery, and the time 22:16. Below the status bar is a light gray header with a hamburger menu icon on the left and the word "Login" on the right. The main content area has a teal background. It contains two input fields: "Username" with the text "admin" and "Password" with masked characters ".....". Below these fields are three buttons: a dark gray "Login" button, a teal "or Create account" button, and a blue "Login with Facebook" button. At the bottom, there is a black navigation bar with three white icons: a triangle, a circle, and a square.

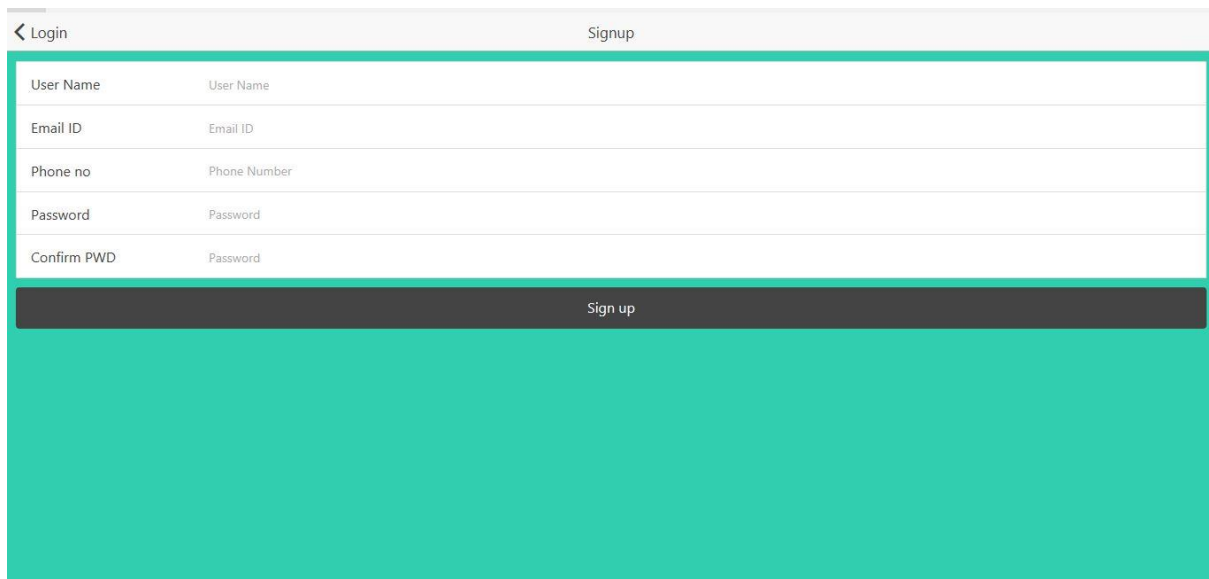
Username	admin
Password

Login

or Create account

Login with Facebook

Signup Page in Web Screenshot

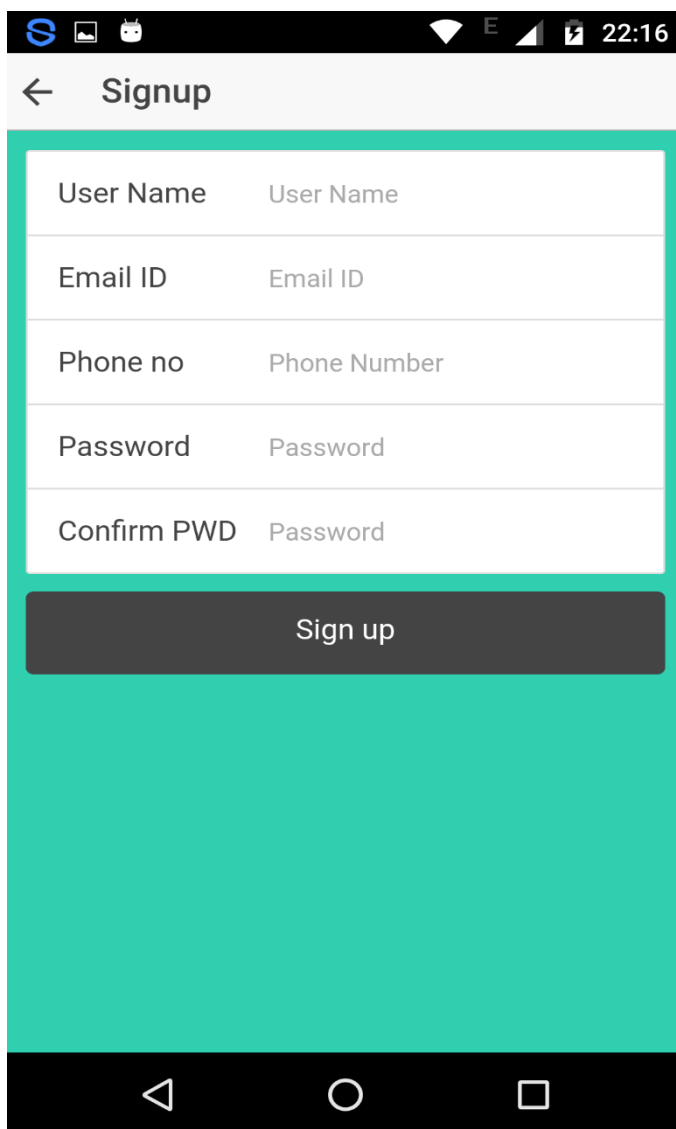


A web browser screenshot of a signup page. The page has a teal background. At the top, there is a light gray header bar with a back arrow and the text 'Login' on the left, and 'Signup' on the right. Below the header is a white form with five rows of input fields. Each row has a label on the left and a placeholder text on the right. The rows are: 'User Name' with placeholder 'User Name', 'Email ID' with placeholder 'Email ID', 'Phone no' with placeholder 'Phone Number', 'Password' with placeholder 'Password', and 'Confirm PWD' with placeholder 'Password'. Below the form is a dark gray button with the text 'Sign up'.

Field Label	Placeholder Text
User Name	User Name
Email ID	Email ID
Phone no	Phone Number
Password	Password
Confirm PWD	Password

Sign up

Signup Page in Android Screenshot



An Android mobile app screenshot of a signup page. The top status bar shows icons for signal, Wi-Fi, battery, and the time 22:16. Below the status bar is a light gray header bar with a back arrow and the text 'Signup'. The main content area has a teal background. It contains a white form with five rows of input fields. Each row has a label on the left and a placeholder text on the right. The rows are: 'User Name' with placeholder 'User Name', 'Email ID' with placeholder 'Email ID', 'Phone no' with placeholder 'Phone Number', 'Password' with placeholder 'Password', and 'Confirm PWD' with placeholder 'Password'. Below the form is a dark gray button with the text 'Sign up'.

Field Label	Placeholder Text
User Name	User Name
Email ID	Email ID
Phone no	Phone Number
Password	Password
Confirm PWD	Password

Sign up

Signup Page with Credentials in web Screenshot

← Login Signup

User Name	admin
Email ID	admin@gmail.com
Phone no	8167778698
Password
Confirm PWD

Sign up

Signup Page with Credentials in Android

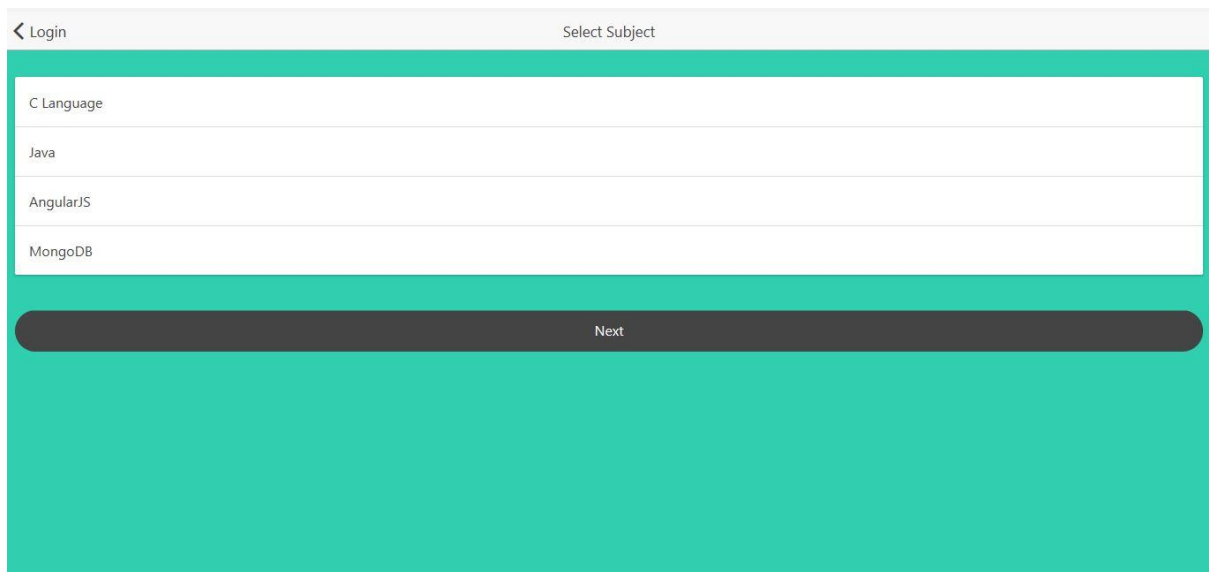
S 22:17

← Signup

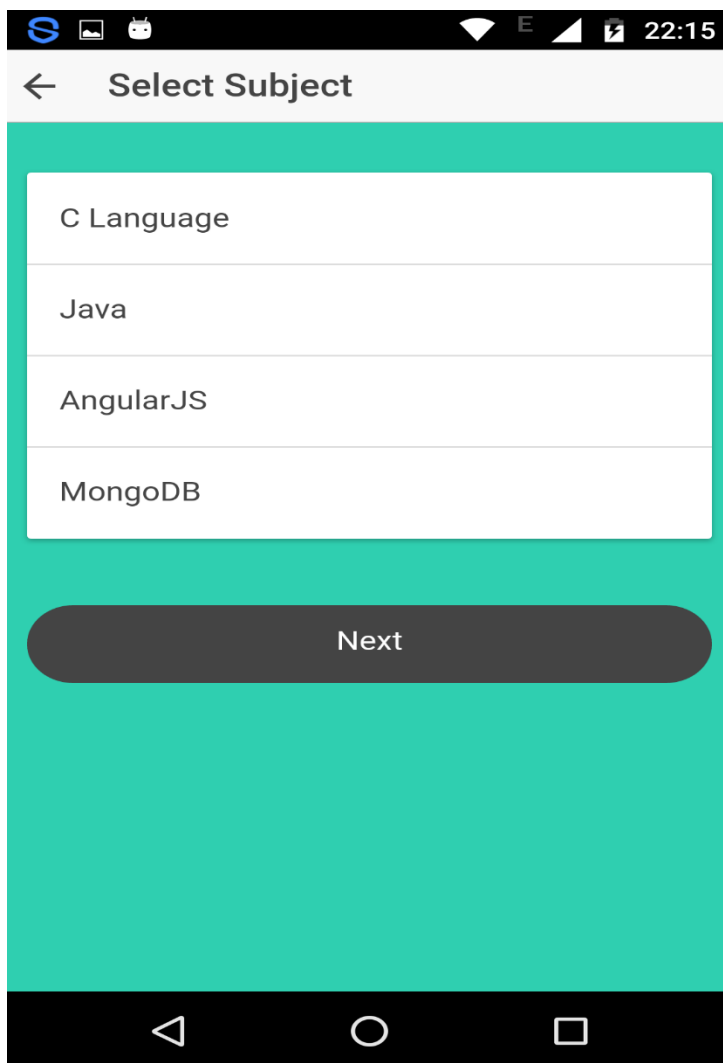
User Name	admin
Email ID	admin@gmail.com
Phone no	8167778888
Password
Confirm PWD

Sign up


Home Page in Web Screenshot



Home Page in Android Screenshot



Profile Page in Web Screenshot


 Profile

UserName


EmailId

Phone Number

Number of Exams taken : 1
For results click on below links

 Quiz on C

Profile Page in Android Screenshot


 Profile

UserName

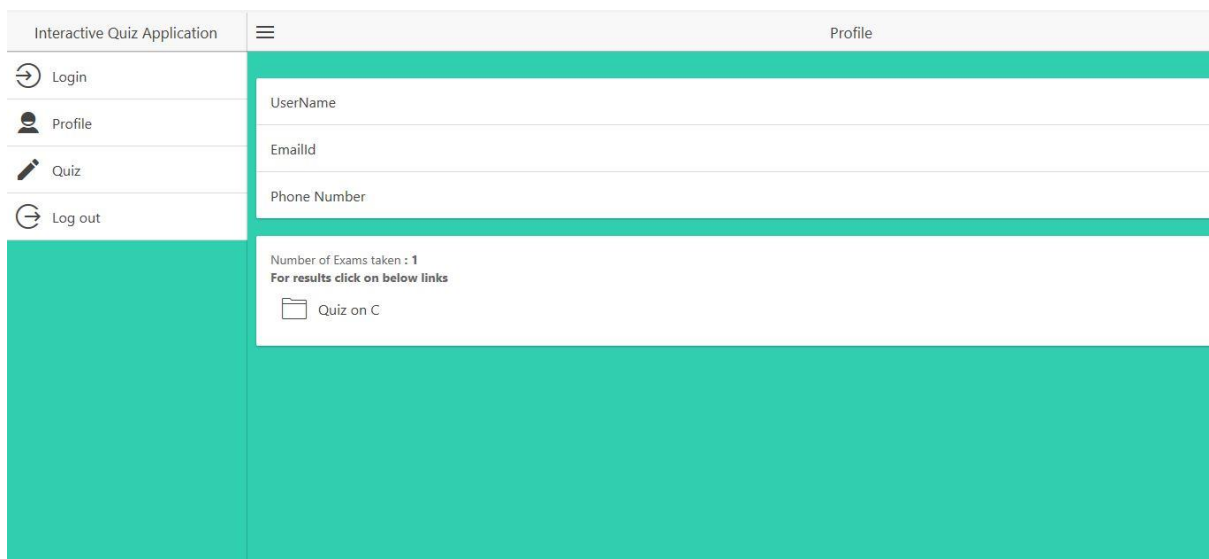
EmailId

Phone Number

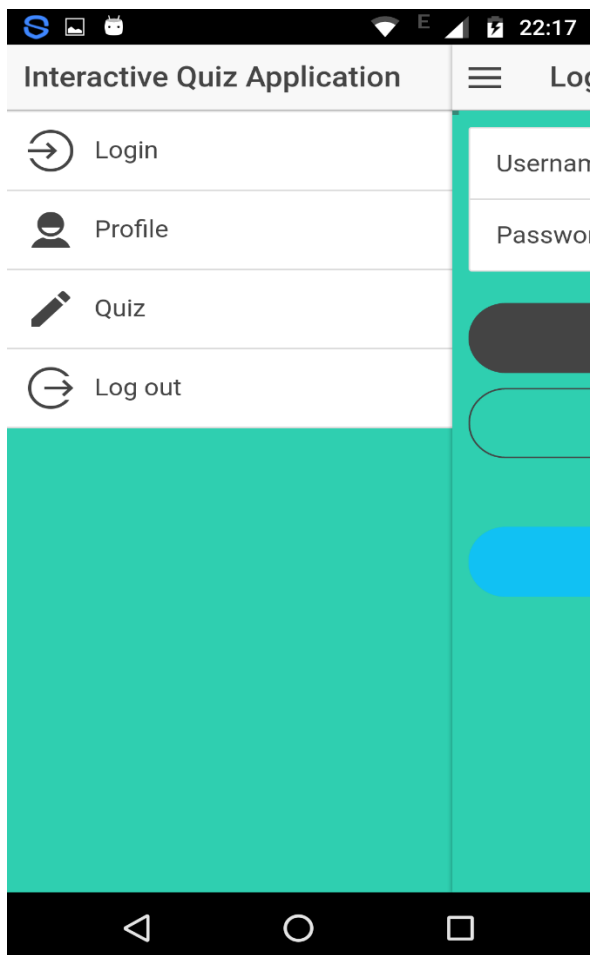
Number of Exams taken : 1
For results click on below links

 Quiz on C

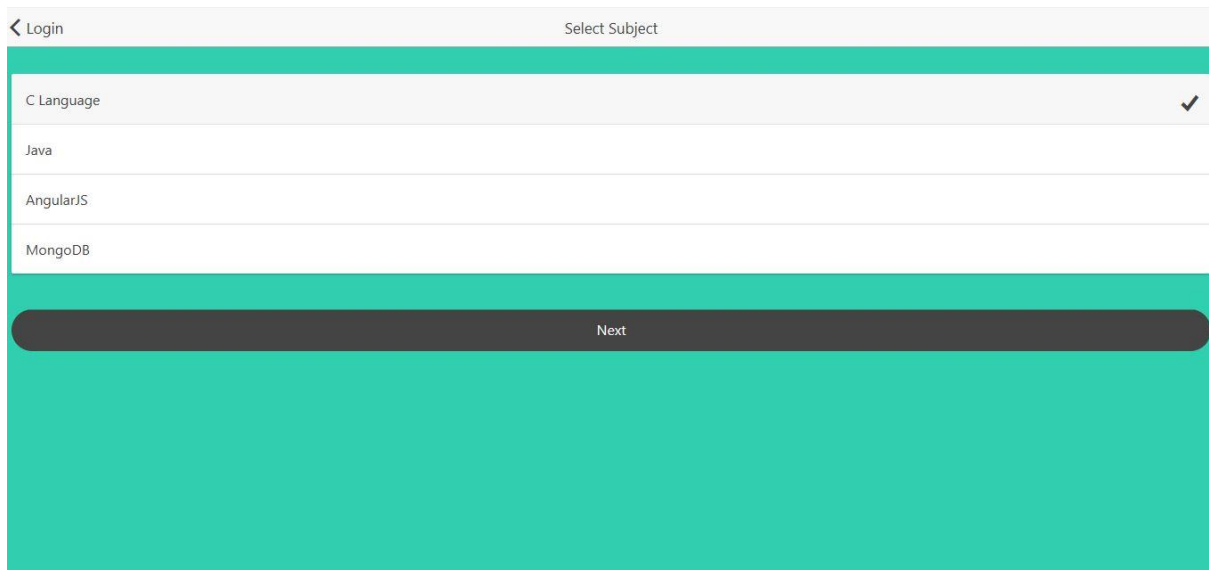
Tabs in Web Screenshot



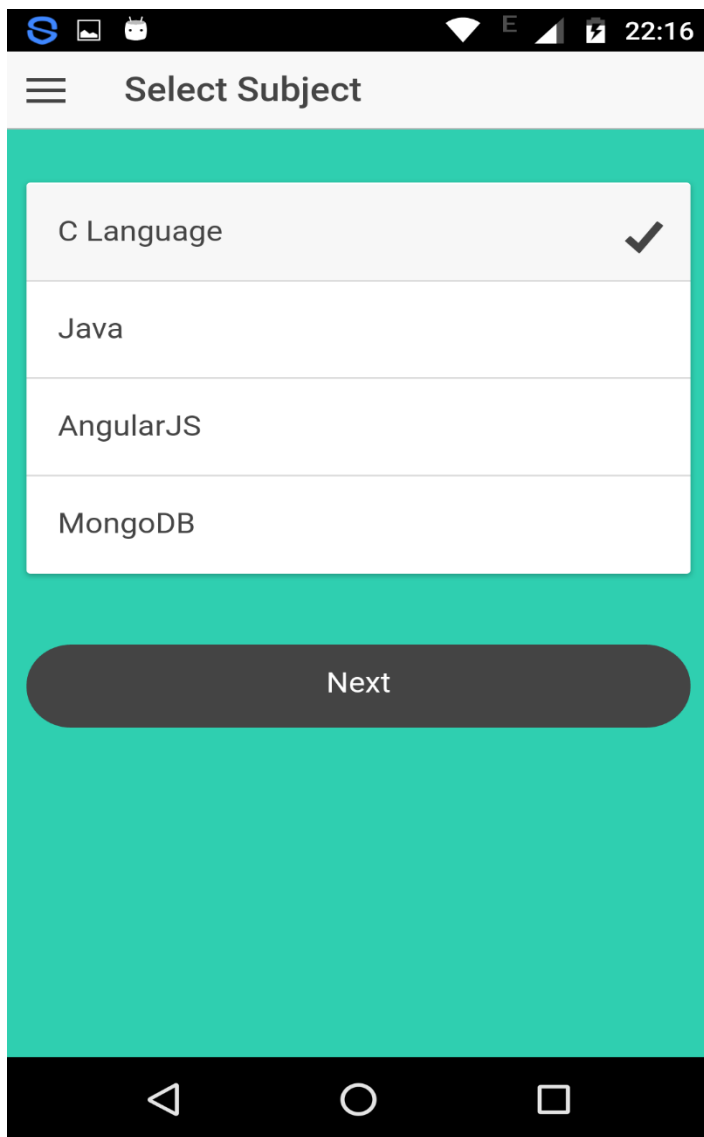
Tabs in Android Screenshot



Selecting Topic from given Topics in web Screenshot



Selecting Topic from given topics in Android Screenshot



Quiz Questions Page in Web Screenshot


Quiz	
Which of the following variable cannot be used by switch-case statement?	
Char	
Int	
Float	✓
Double	

Next

Scribble

Submit

Quiz Question Page in Android Screenshot




Quiz
Which of the following variable cannot be used by switch-case statement?
Char
Int
Float
Double

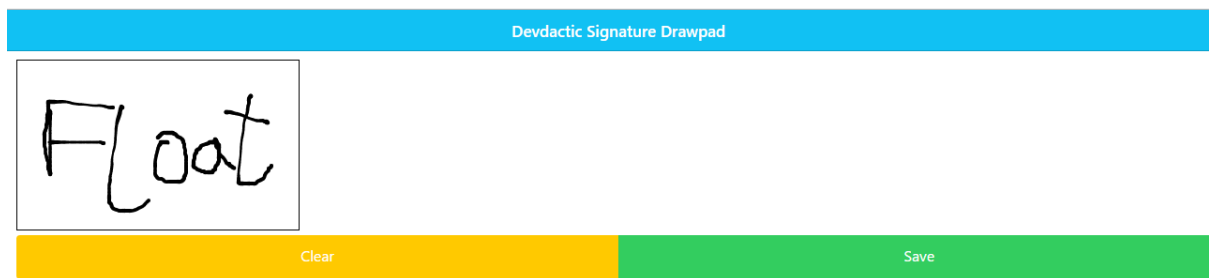
Next

Scribble

Submit

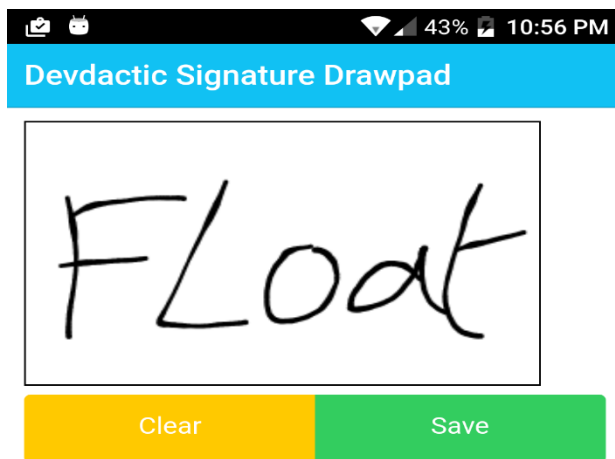


Scribbling pad on web:



Float

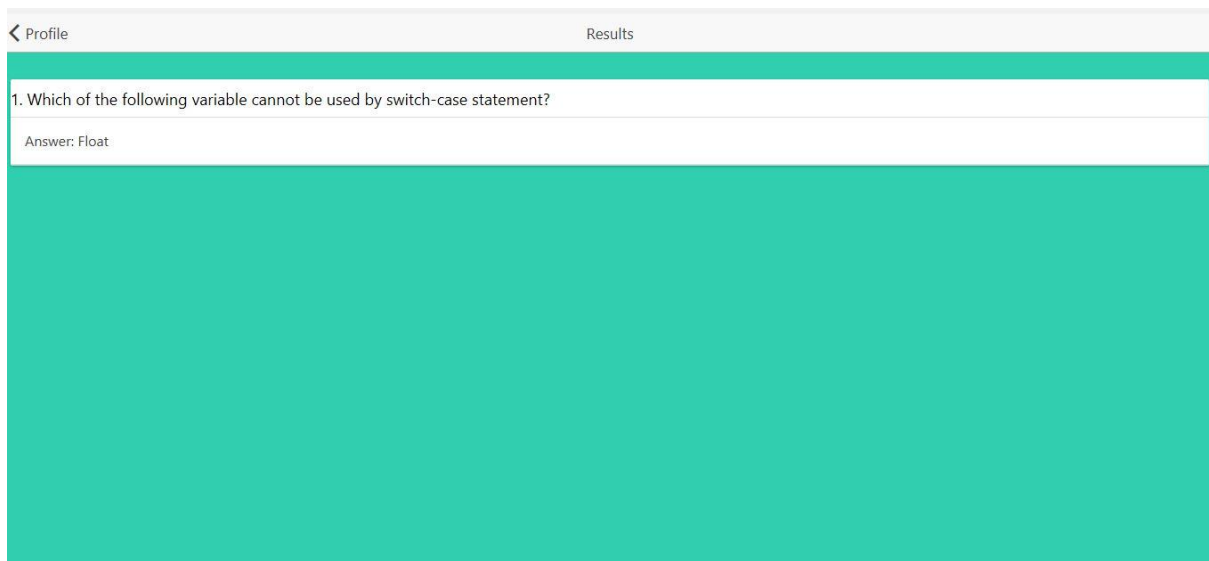
Scribbling pad on android:



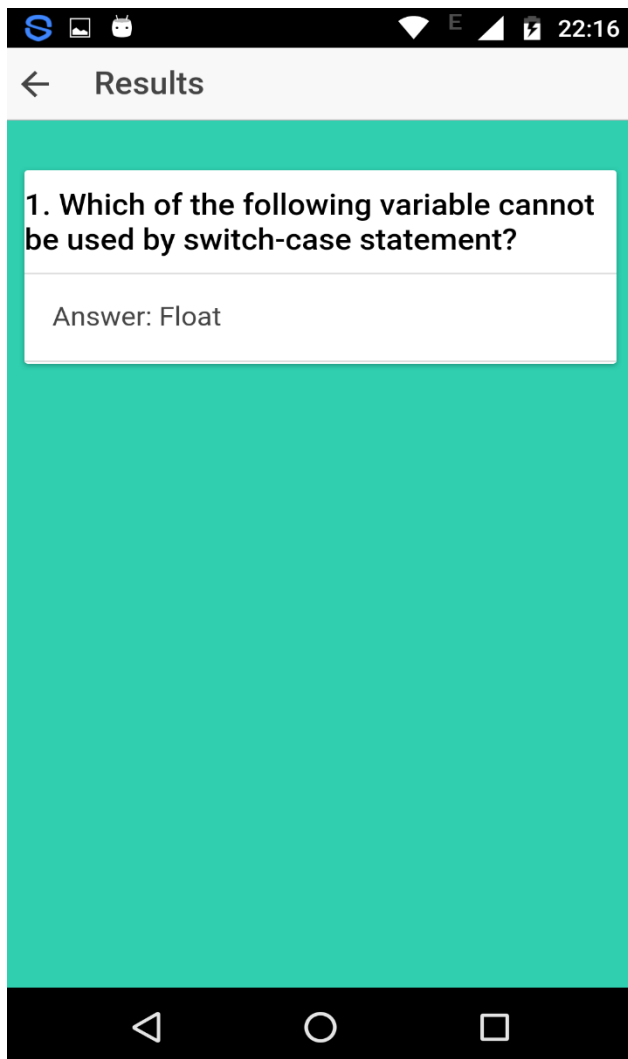
Float



Displaying History on clicking taken quizzes option in home page



Displaying History Page in Android Screenshot



Project Management:

Work completed:

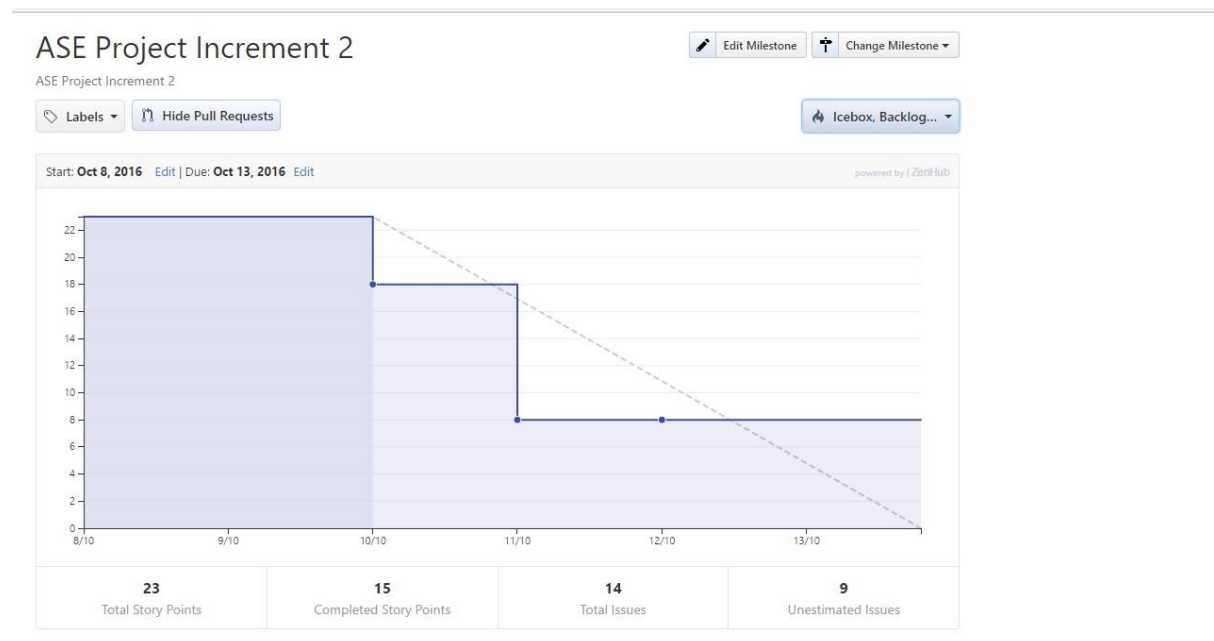
S.No	Description	Responsibility	Time taken	Contributions
1	User story, Use case, Service description, Unit testing, Read questions and options in the quiz	Nikhila	10	100%
2	Scribbling pad for scratch work, Display profile page, Architecture diagram, Activity diagram	Divya	10	100%
3	Tab showing profile and take quiz in home page, Start quiz on selecting a topic, Display questions and options after starting the quiz.	SaiTeja	10	100%
4	Display test score on completing the quiz	Arun	0	-
5	Documentation	Nikhila, Divya, SaiTeja	5	100%

Work to be done:

Mongo DB has to be implemented for the project to store user details and quizzes.































Burn down chart:

GitHub's burn down chart of the project is as follows:



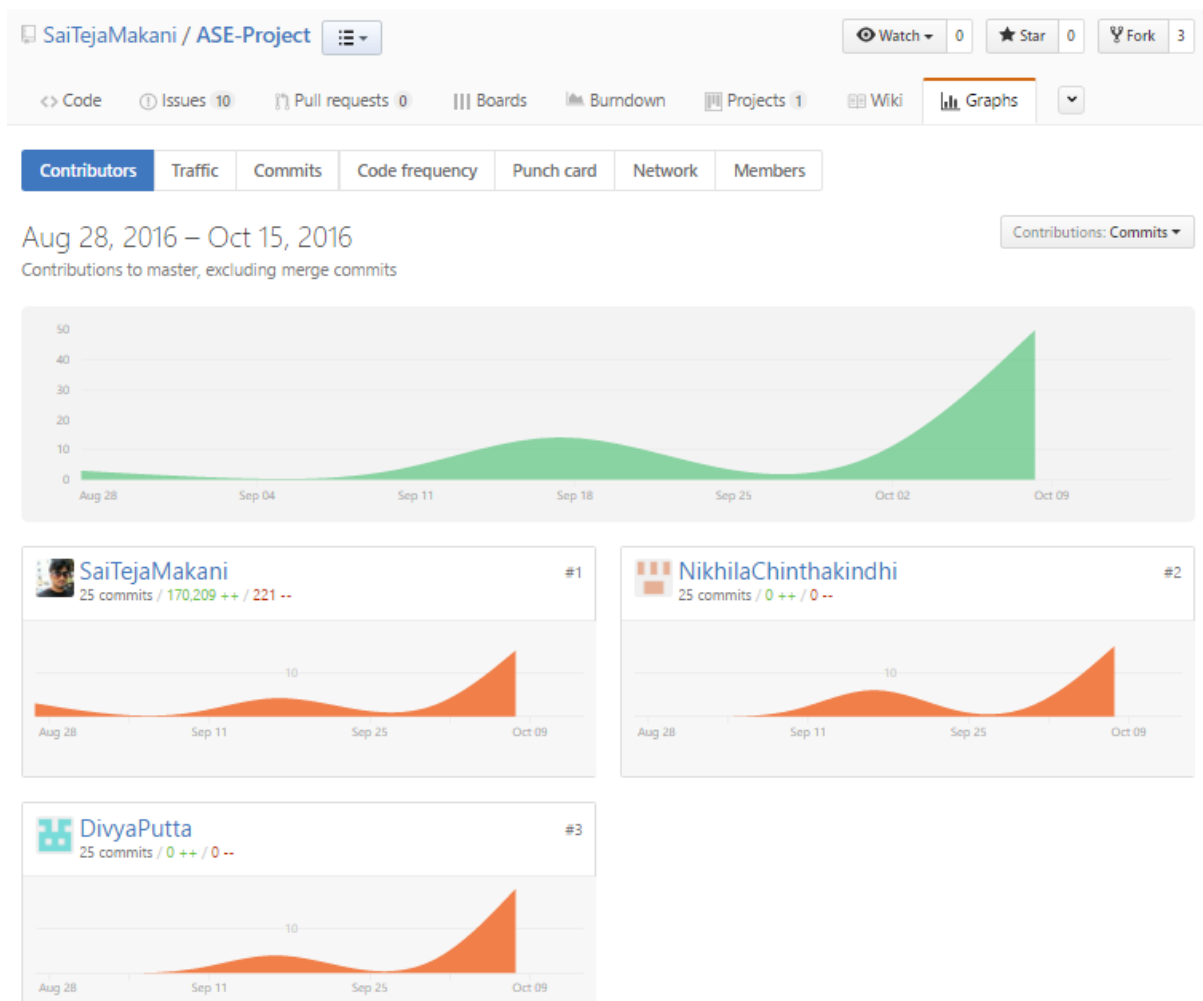
Issues:

GitHub's issues for the project are as follows:

<input type="checkbox"/> 10 Open ✓ 10 Closed	Author ▾	Labels ▾	Milestones ▾	Assignee ▾	Sort ▾
<input type="checkbox"/>  Display Test score on completing quiz #20 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Documentation #19 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Scribling pad for scratch work #18 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Read questions and options in the quiz #17 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Start quiz on selecting a topic #16 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Display Profile page #14 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Unit testing #13 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Tabs showing profile and tests in home page #12 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  User stories, Use case, Service description #11 opened 4 days ago by NikhilaChinthakindhi 					
<input type="checkbox"/>  Architecture diagram and activity diagram #8 opened 4 days ago by NikhilaChinthakindhi 					

Contributors graph:

GitHub's contributors graph for the project is as follows:



Bibliography:

<https://developer.mozilla.org/en-US/docs/Web/API/SpeechSynthesisUtterance>

<http://www.w3schools.com/angular/>

<http://www.w3schools.com/bootstrap/default.asp>