SUNWAY
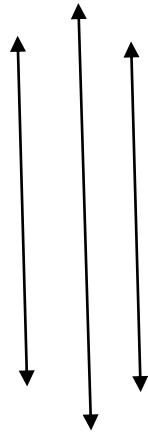## INT'L BUSINESS SCHOOL

Program Name: (BCS) hons

Course Code: CSC 3560

Course Name: Mobile Programming

Individual Project Report

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1.   **Introduction**

This is the quiz application build by using Flutter framework and firebase for real time database. This application allows us to organize the quiz online through mobile application. This application could be useful for conducting the quiz test in the school and colleges as well as we can use this app for just playing the MCQ (Multiple Choice Question).

Basically, there is 2 app for this project quiz admin app and quizer pro. This application allows us to add the multiple question through quiz admin app and we can use this quiz app for playing the quiz. The admin application is for the administrator of the application and quizer pro is for general users to play the quiz. This app also supports dynamic time control over the quiz.

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2.   **Similar systems**

There are lots of simars quiz available in marker/internet or play store some of the app are listed below with some descriptions.

3.1 YRIVIA QUIZ QUESTION ANSWER

This is the advance quiz app for conducting and playing the quiz game. This application allow is to choose multiple choice question with positive and negative marking features. This app also shows the leading board.

3.2 Nepali Quiz 2079

This is another similar application like our application made by Nepali developers. This application allows us to play quiz with general knowledge question with multiple categories.
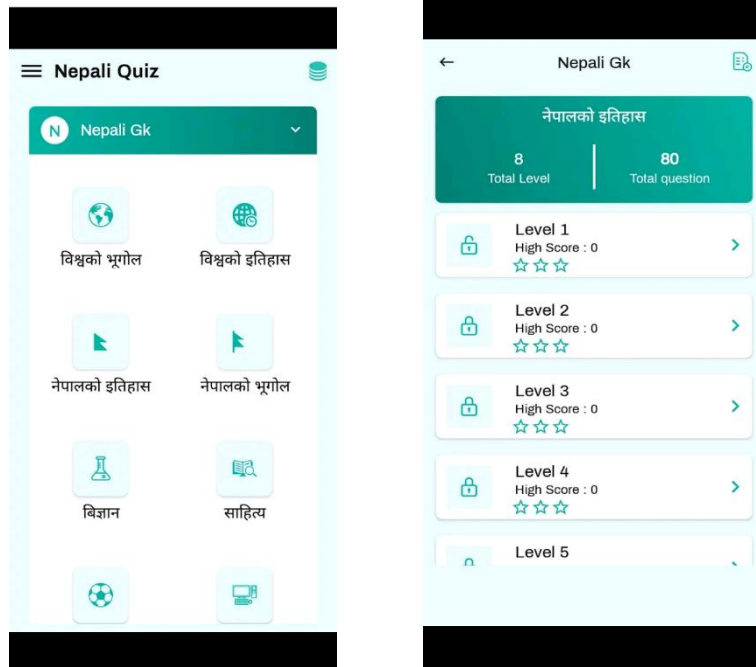
3.3 Codinguru Programming Quiz

Coding Guru is a android mobile application can be use for playing quiz for those who is interested in programming quiz. This application provides many categories of quiz of different programming language like python, java, java scripts. This application also provides the statistics of player and quiz categories.
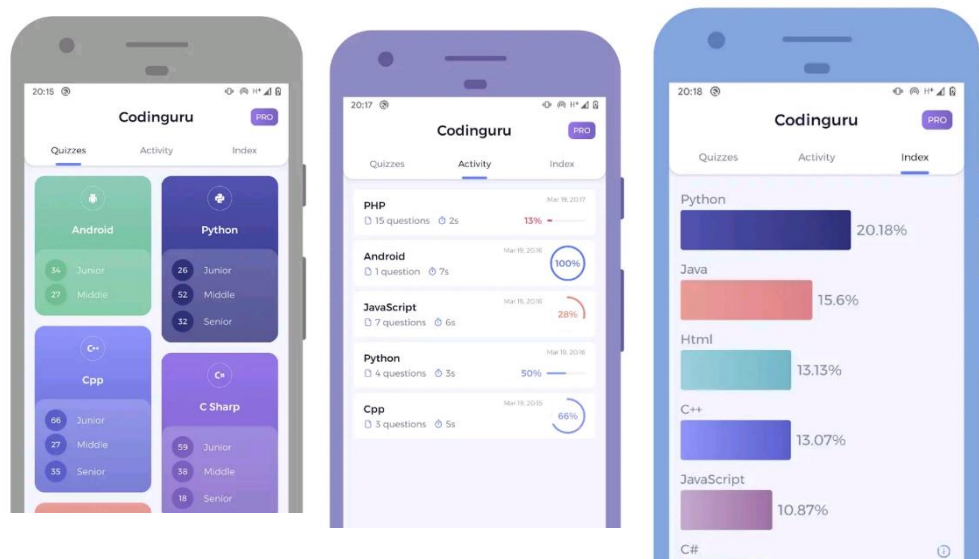
3. **Application Functionalities**

This application includes some functionalities all individual functionalities have their different function and behavior. Some functionalities of the app are shown below.

3.1 Authentication (Google Login | Email and password login)

There are two app in this project the quizzer pro app has functionalities of social login I.e., login with google. Similarly quiz admin app have email and password authentication feature.

3.2 User Ranking

This quizer pro app will also rank the user on the basic of higher score. The ranking screen show the user rank with their name marks and profile image which is profile of the logged in google account.

3.3 Quiz time management

Another feature of the application is time management. We can set the total time of the quiz game from the firebase console. The application automatically updates the time in real time i.e., without updating.

3.4 Create, Read, Write and update the quiz question, options, and correct Answer.

This application is able to handle CRUD operation. We can add the new question form the quiz admin app also we can edit the specific quiz and all its related things. We can also delete the question and update the quiz content in real time. Also, we can change the password form the admin app.

4. **User Interface (Screenshot)**

All of the UI element are build using flutter material package and flutter widgets by using many UI component like Container, List View, Card, Column View, Row View, and etc.

**<u>UI From Quizer Pro app</u>**
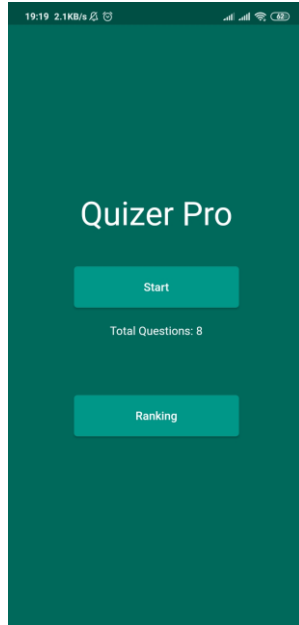
This is the first screen of quizer pro app. This app is used for playing quiz. If we click o the start button it will redirect into quiz screen like below.
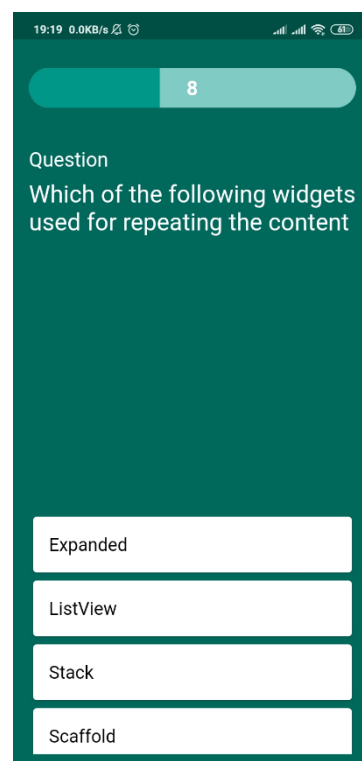
The application will show the question and 4 options list view form firebase fore store real time database. We can see that there is timer scale which is also controlled from firebase database. If we click on right option then the mark will add. We should complete the quiz within given time. The screen will automatically redirect into result screen after completing the quiz or after completing the time.
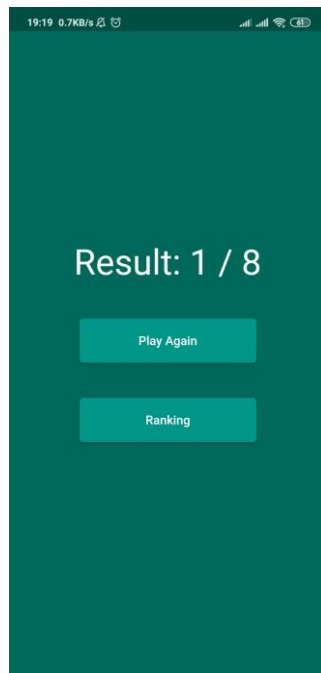
We can see there 1/8 which mean we give 1 correct answer out of 8 questions. If we click on the ranking button it will redirect into ranking screen like below.
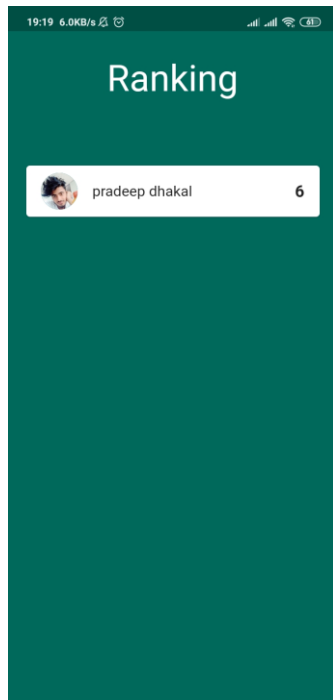
We can see there the user with the marks. Currently there is only user who use the app. The ranking will automatically update If use get higher than these marks.

User Interface of Quiz admin app
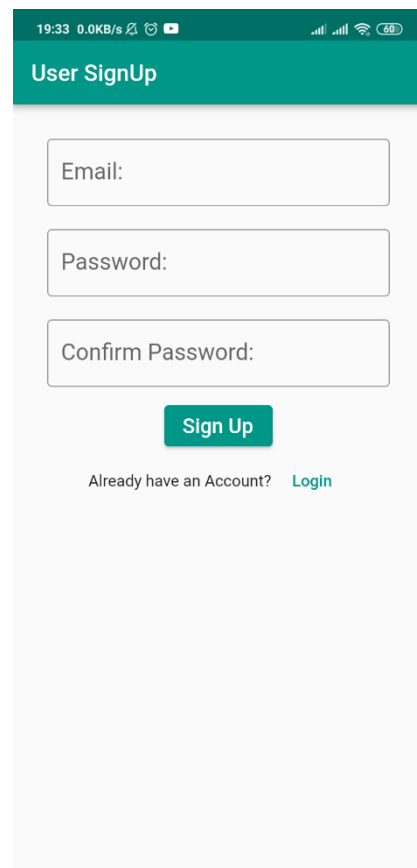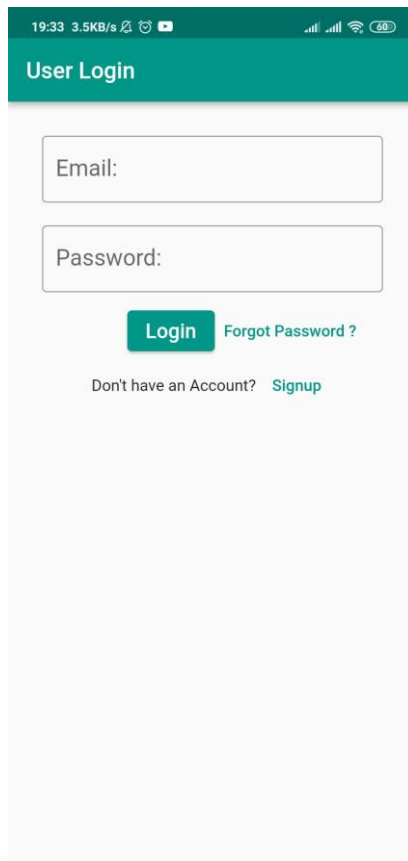
This is the User login and sign-up screen form the admin app. The user login screen will redirect us into dashboard screen we the given username email and password are already register into the database. The sign-up screen will used for registering the new user in the admin app.
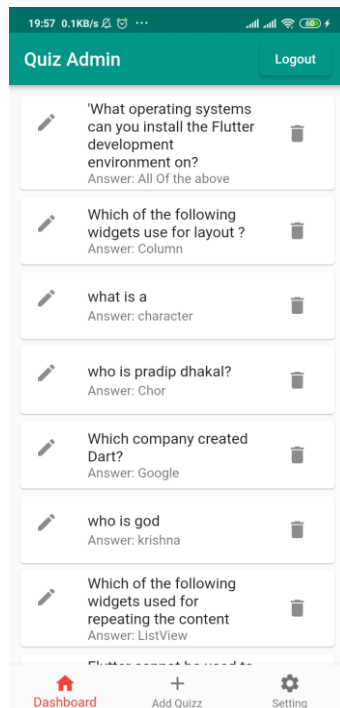

This is the main dashboard interface of the admin app. This screen include logout, all of the question, edit and delete icons similarly add question screen and setting. Of we click on trash icon the question and all of its content will be deleted form the database. If we click on the pen icon it will redirect us into update screen.
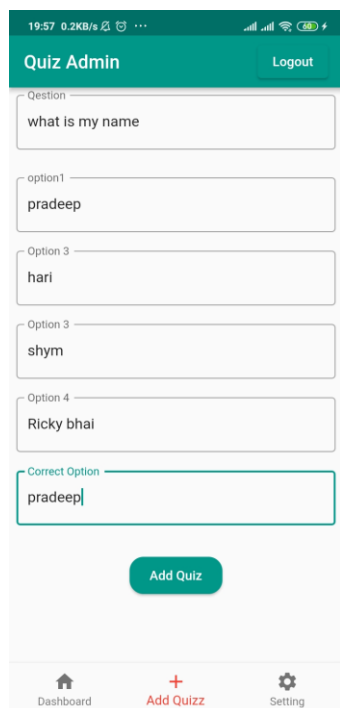
This is the screen of adding new question on our application we can create new question from here.
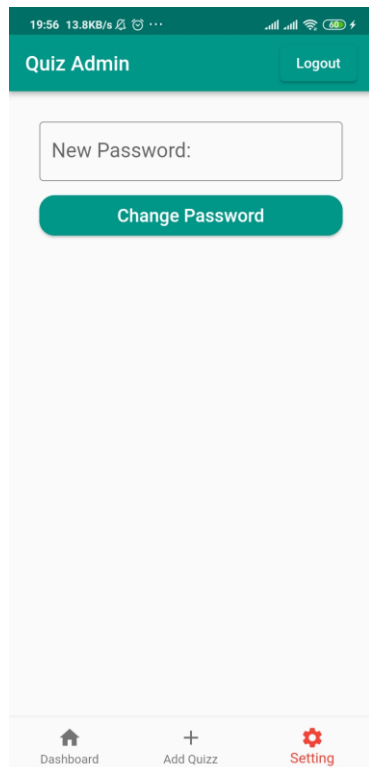
This is the change password screen. We can change the logged in user's password by adding new password and clinking on this button.

5. Limitations and future improvement

In the field of software engineering a software never can be completed we need to change the system/ app according to client requirement or as our wish.
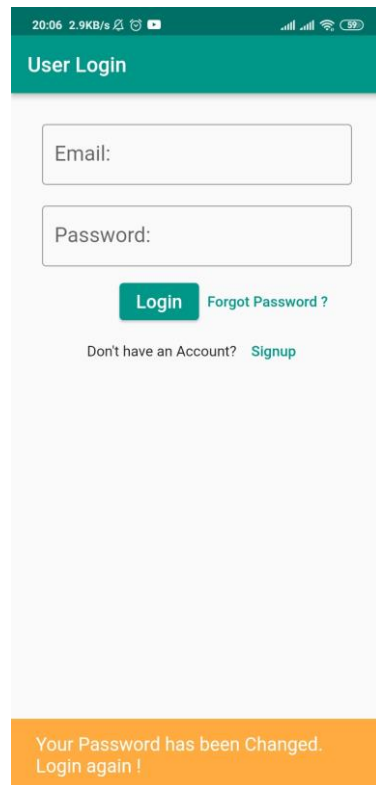
- Quiz Scheduling

  In current system we didn't have a feature of quiz scheduling. We can improve this app by adding this feature

- AI Based Quiz Recommendation

  Now a days most of the application are using ai and ml module. So, if we can implement this feature in this app in future it will reduce the time of manually question adding process.

- Report Statistics

  Reporting is most important feature of a successful application. We can use the feature of reporting and user statistics of user and other categories it will also help in user interaction.

6. Appendix

Invalid email and password

Changing the password

Adding New Quiz

Playing quiz

Results

Database

Thank You