Capstone Stage1

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Trivia Hunt

Description

It's is an Quiz app for Open TDB (https://opentdb.com).
The app offer ways to improve your general knowledge and enjoy along. One can choose any topic from a wide range of subjects and pick a quiz. Play and learn at the same time. This app contains various difficulty level to check your knowledge. Leader Board is provided for tracking the progress.

Intended User

Users of all age group can use this app, but it is mainly intended for people who want to improve their general knowledge. Overall it's a fun learning app.

Features

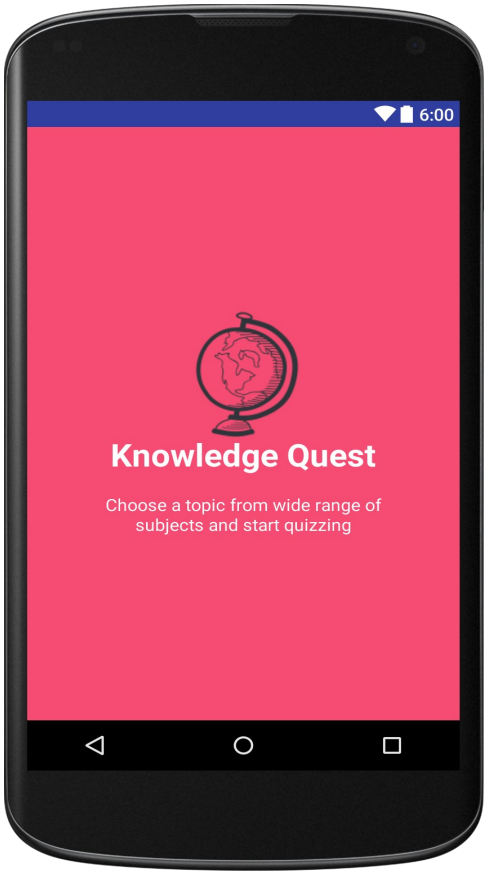
Main features of the app

- Good looking UI which is easy to go through
- Compares progress
- Wide range of subjects
- 3 difficulties level
- Leader Board

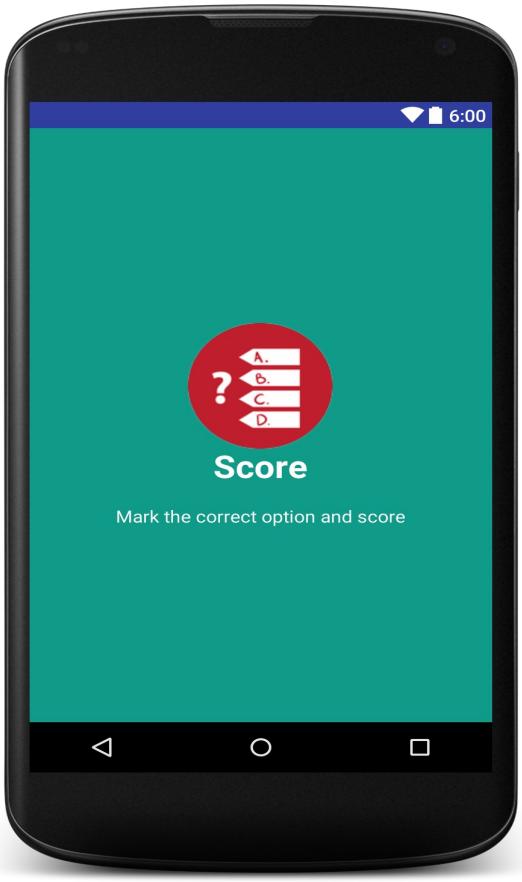
User Interface Mocks

Screen 1

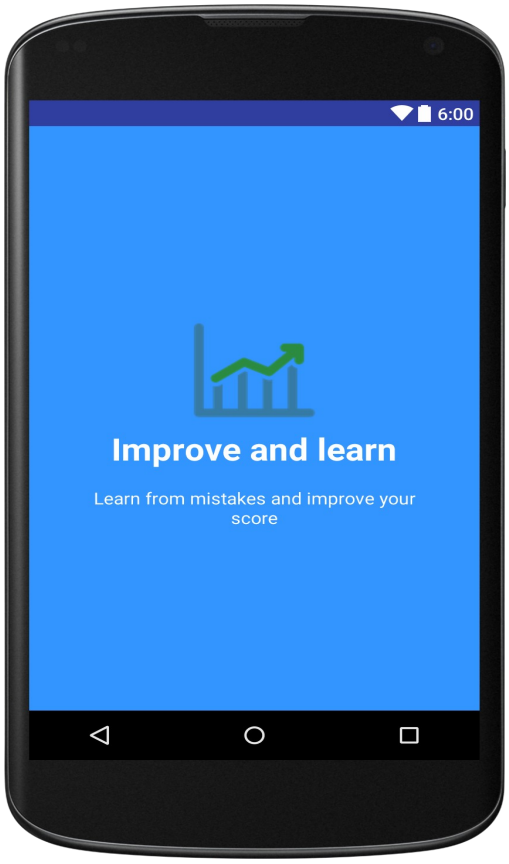
Intro Screens

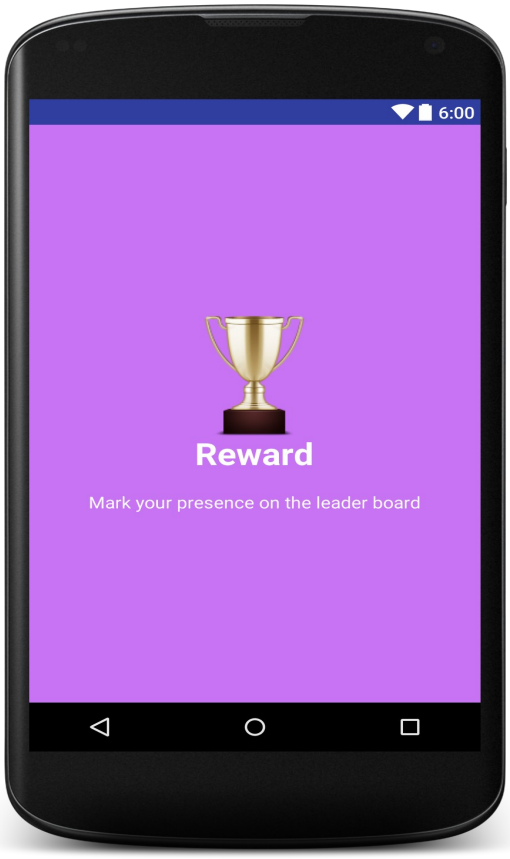


(1)



(2)

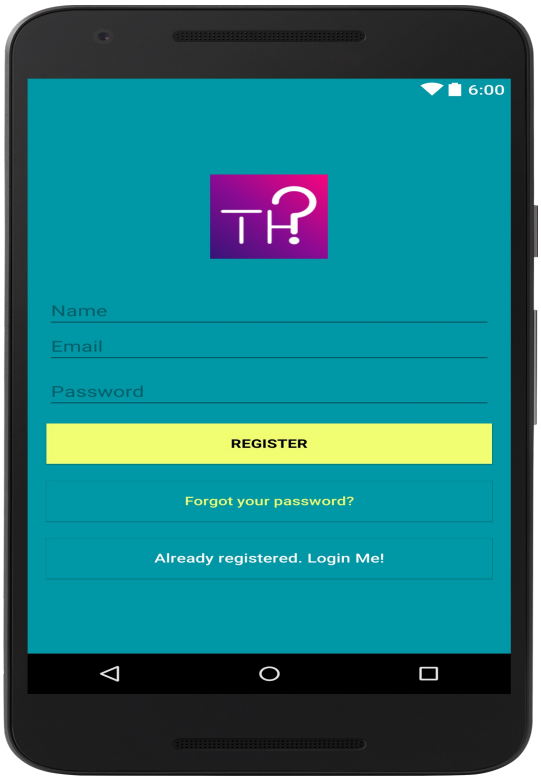




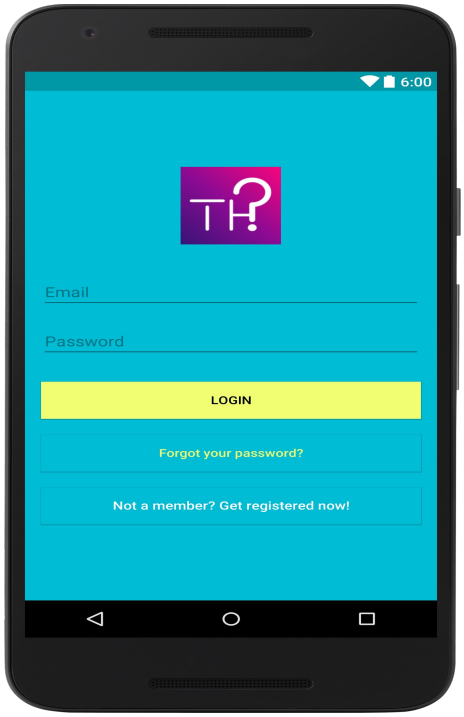
(3) (4)

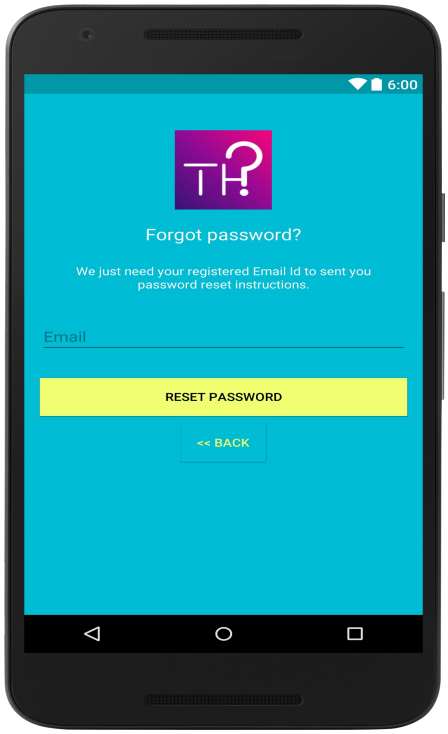
The above screens will be used to provide intro to user before getting in app. The user can navigate through each slide using swipe gesture or using the next button. The intro would only appear when the app is launched for the first time.

Screen 2(Register)

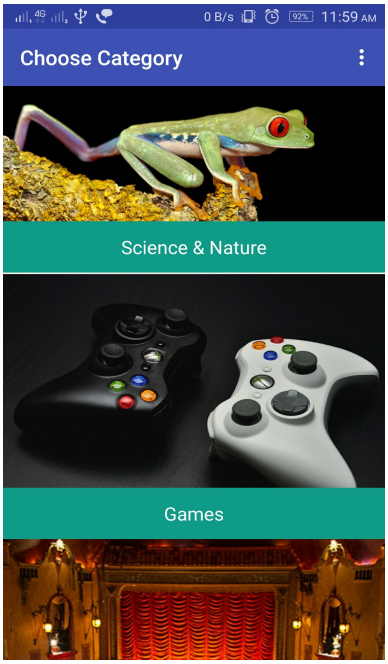


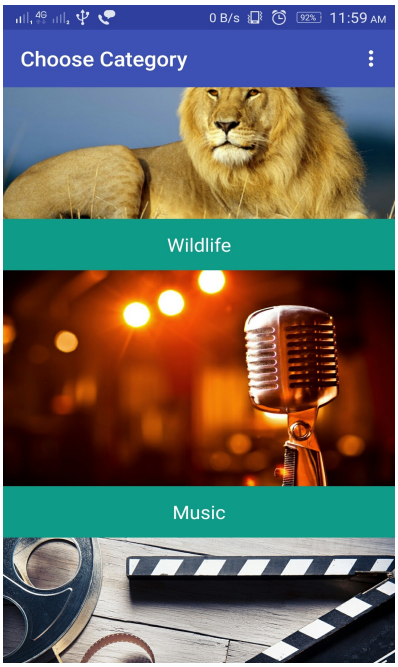
Screen 3-(Login & reset Password)





Screen 4

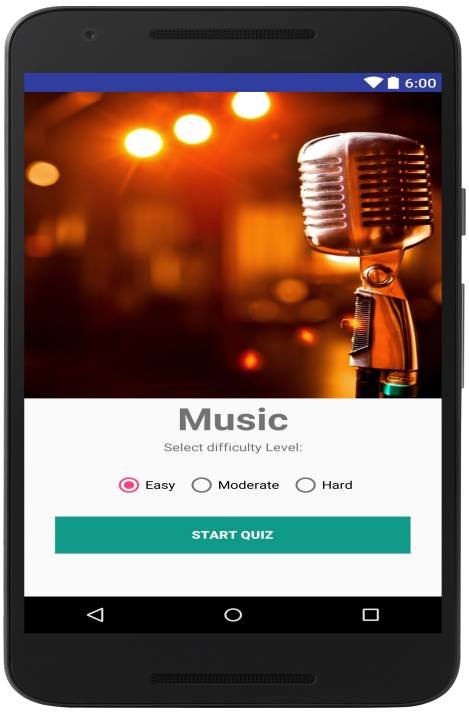


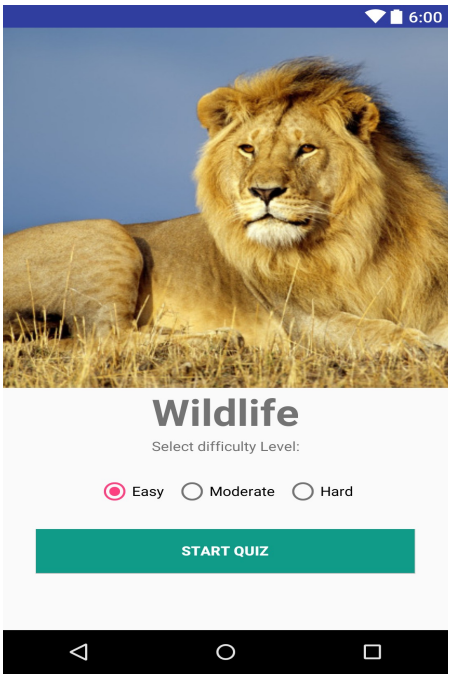


Home Screen (Choose Category)

After Login User will be directed to Home screen where he/she can choose his/her interest area. And start the quiz.

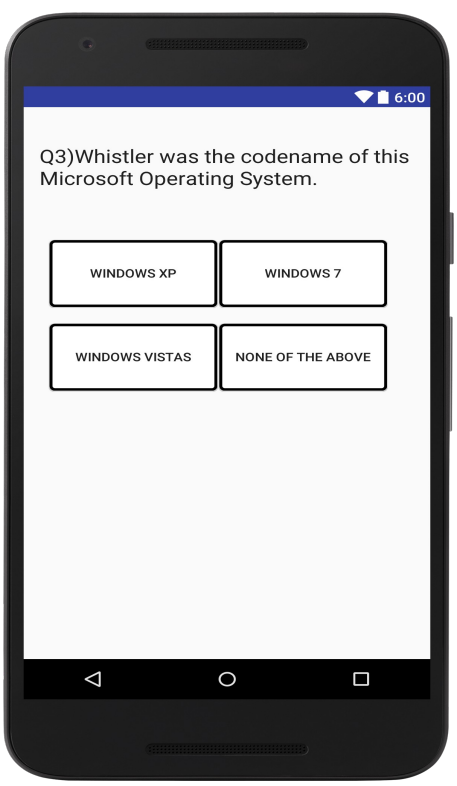
Screen 5

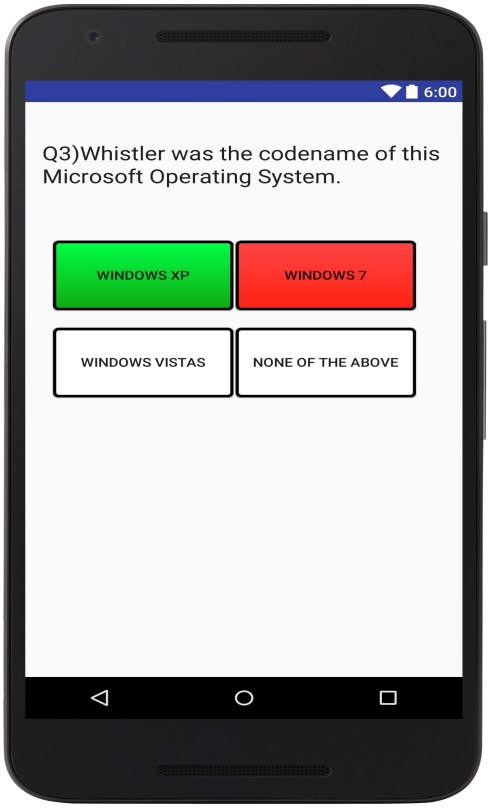




Detail Screen
Once user is done with selecting the category, before starting he needs to choose the difficulty level.

Screen 6

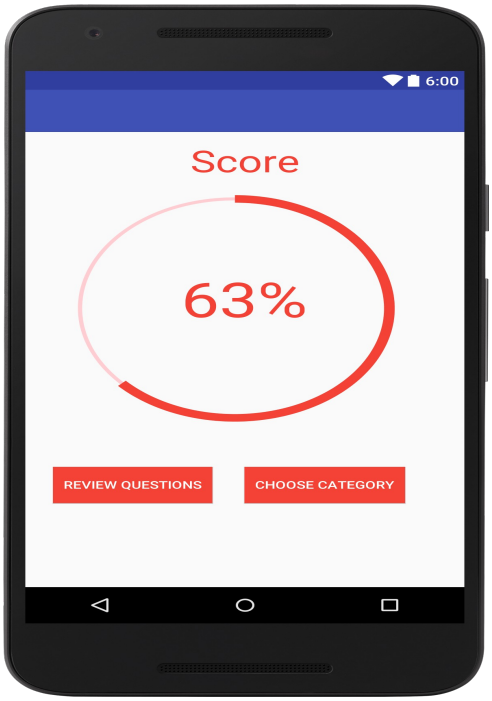




Question Screen

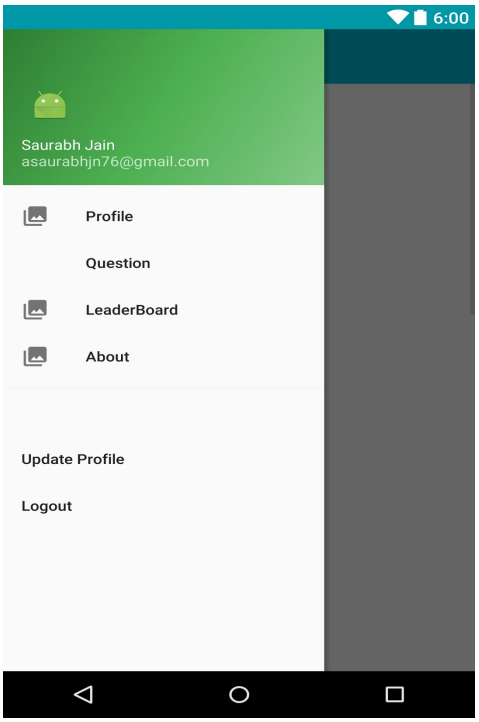
This is how question would appear and then red and green color to determine correct and wrong choices.

Screen 7



This screen will show user his performance, and give options to review or choose category for starting the quiz again.

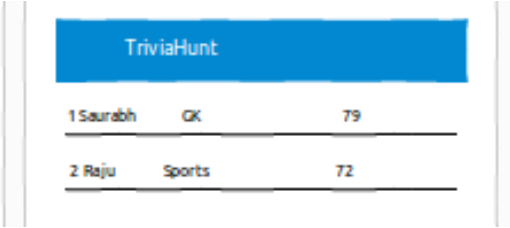
Screen 8



Navigation Drawer

This drawer will help user to traverse over the feature of the whole app.

Screen 9



Widget

This will be the widget showing the top scores of the quiz.

Key Considerations

How will your app handle data persistence?

The app will use firebase realtime data base to store scores of the user, also content provider will be used to store the data received from api.

Describe any corner cases in the UX.

Corner case in UX will be when user in between quiz presses back button, in that case he will be prompted with finish quiz message box with option to finish or continue. In other a button and navigation drawer is provided to navigate around.

Describe any libraries you'll be using and share your reasoning for including them.

Picasso - to handle the loading and caching of images.
Volley - Network HTTP requests
com.mikhaellopez:circularprogressbar:- for displaying bar graph

Describe how you will implement Google Play Services.

Firebase Auth - This will be used to login user and provide necessary authentication.
FireBase Real time Database- Real time database will be used to store the scores of the user.
Firebase Crash Reports - This will be used to collect crash statistics from users so that the developer can debug app efficiently and fix bugs.

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

The app will require open trivia database API , and other libraries so first tasks will be

1. Setup dependencies in gradle.
2. Organize code in their respective folder .

Task 2: Implement UI for Each Activity and Fragment

Making home screen with images in it, to choose quiz category. Since it won't be good idea to add binary(images) files in app ,which will increase the size of the app. I will rather host it and then use Picasso to cache it.

- Build UI for all activities
- Build adapter for grid view
- Setup Click Listener for Detail View
- Pass on the On the Intent to ensure good flow between activities.

Task 3: Implement Navigation Drawer, Question Fragment, Result

A drawer will be necessary for good navigation.

- Create Drawer layout
- Add it to Main activity
- Create Question Fragment, use it to show questions with correct answer on user click.
- Implement the logic to calculate final score.

Task 4: Implement Fire base database and Content Provider

Data base will be used to record the past scores of the user, and for the leader board Realtime Firebase data Base will be used

- Create Databse Contract and SQLite Helper
- Table will have 3 column Category, Score date.
- Firebase DataBase will have 3 entry User , Score , Category, will be sorted based on rank.
- Design Content URI
- Implement Content Provider

Task 5: Implement Firebase Auth, other Google play services

Since One will require a Unique Id to get user user in database, we can get it through firebase auth:

- Implement Login, Register , Reset Password
- Make Profile Segment in Navigation Drawer and option for signing out.
- Put the score of user to database
- Implement crash report for any crashes

Task 6: Implement Intro Screen

Intro Screen are good for user to give an app overview.

- Implement View Pager to for smooth Swipe
- Make entry in Pref Manager , so that it opens only one time.

Task 7: Create Widget

Create a 3X2 widget for leader board.

- Create widget Layout.
- Create data provider,service, Remote Views Factory
- Include it to Mainfest.

Task 8:Look for any errors and bug

Test the app for any checks and bugs

- Running app without Internet
- Fixing all the bugs Found

Add as many tasks as you need to complete your app.

Submission Instructions

1. After you've completed all the sections, download this document as a PDF [File → Download as PDF]
2. Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
3. Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"