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# **Mobile Application Development – Quiz App**

Specifications Documentation

School of Technology and Innovation  
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Specifications Documentation

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## **1 Introduction**

This document contains the functionality, interface and data connections of the Quiz App done for Mobile Application Development course. The application was developed using React Native and it was developed for Android using Android emulator with API levels 9 and 10. Some testing was done with OnePlus 7T but some UI components did not render correctly on the device so all of the UI images will be from emulators.

## 2 Functionality and UI

The application contains its own components for each screen and some other component files. As the app starts it asks the user to log in or register if they are a new user (Image 1).

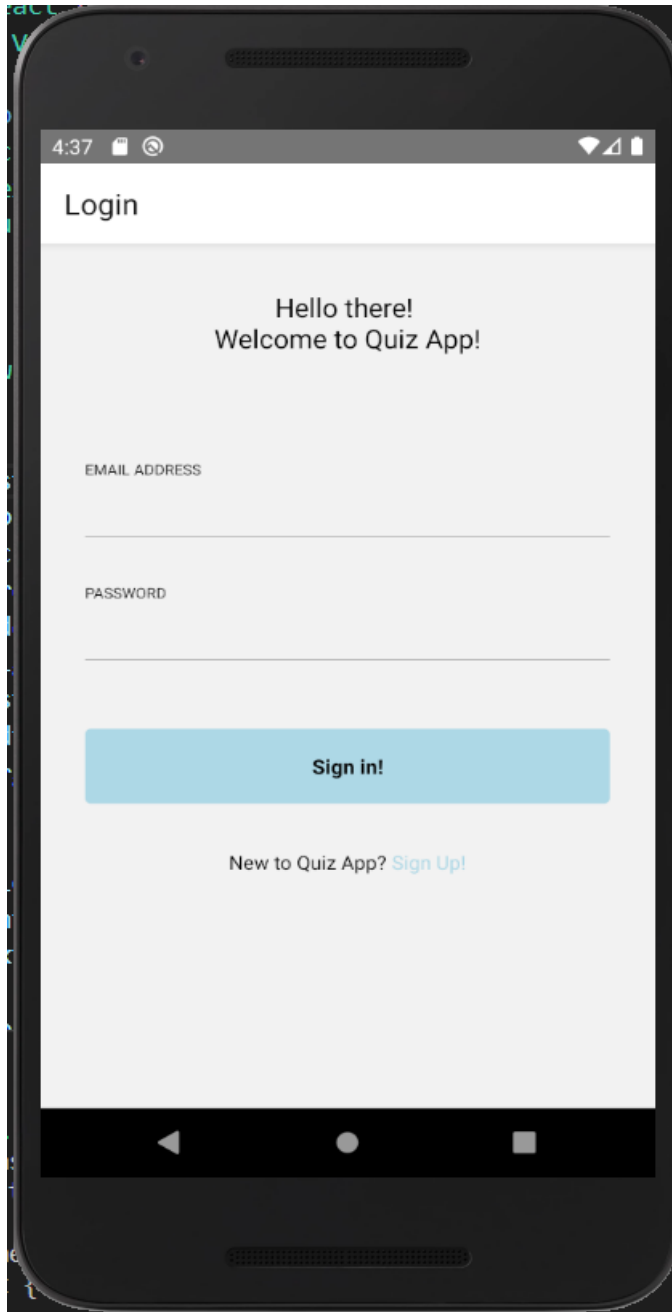
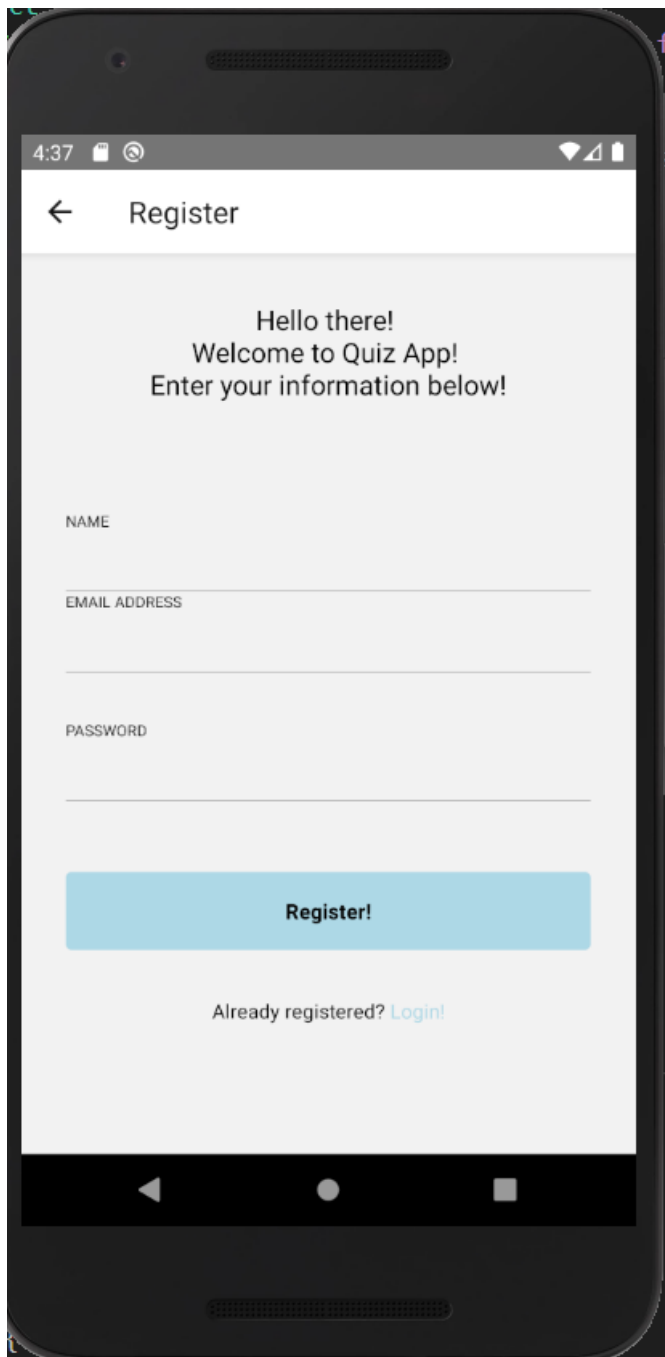


Image 1. Login screen

If the user has not used the application before they can click the 'Sign Up !' link to register as a new user. The application renders a new screen that has information for the user to fill in (Image 2). The user needs to input their name, email and password. The user can also go back to the login screen by pressing the arrow in the left top corner of the screen



**Image 2. Register screen for new users**

After the user has logged in and the information given has been authenticated, they are directed to the home screen (Image 3). In this view they can open the quiz. The user can also logout from the bottom link that says 'Logout'.

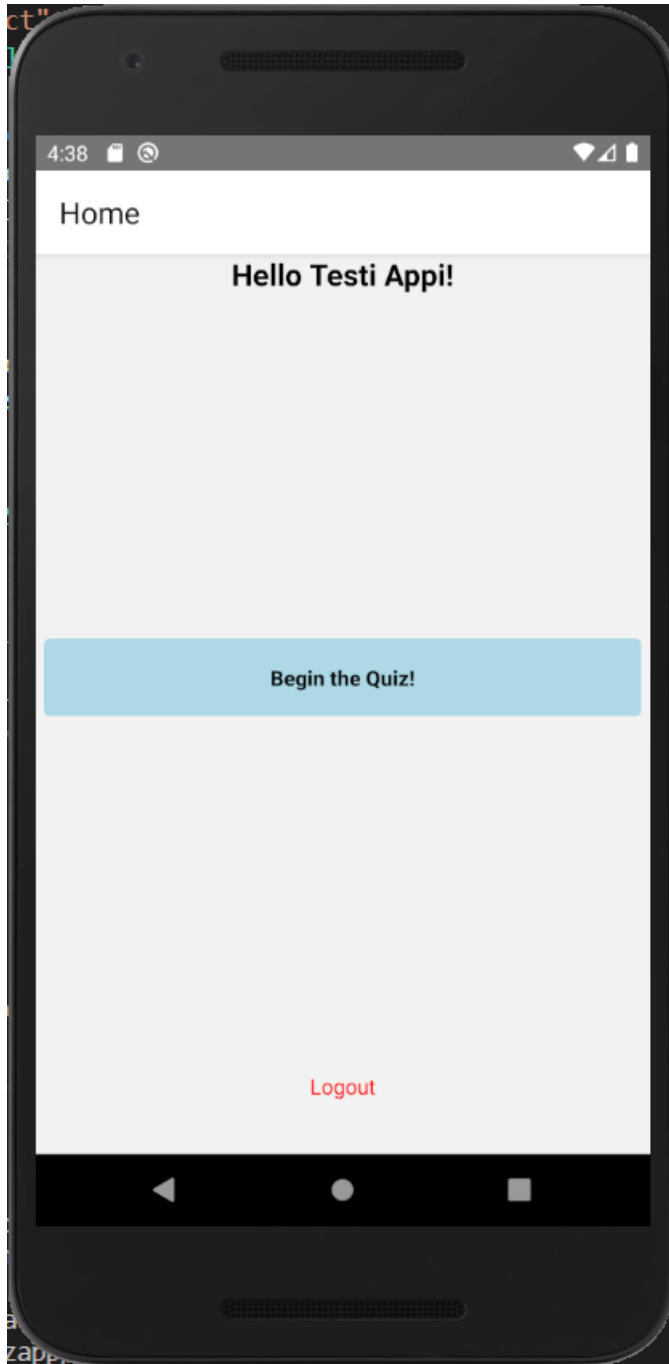
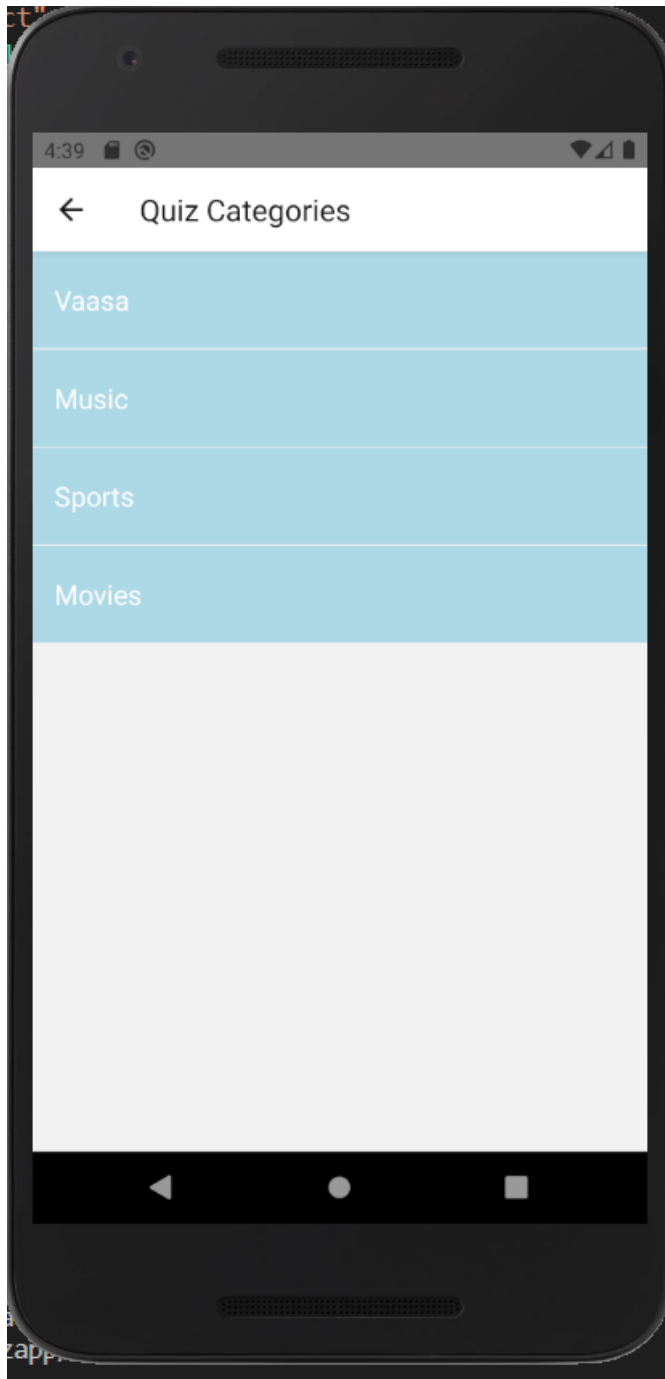


Image 3. Home screen

In the quiz category screen (Image 4) the user can select the desired category for the quiz. After the user has chosen the category the quiz begins. All of the quizzes have three questions and four options for answers. Image 5 has an example of a question from the Vaasa category. In the bottom of the screen the user has their score so far.



**Image 4. Quiz categories**

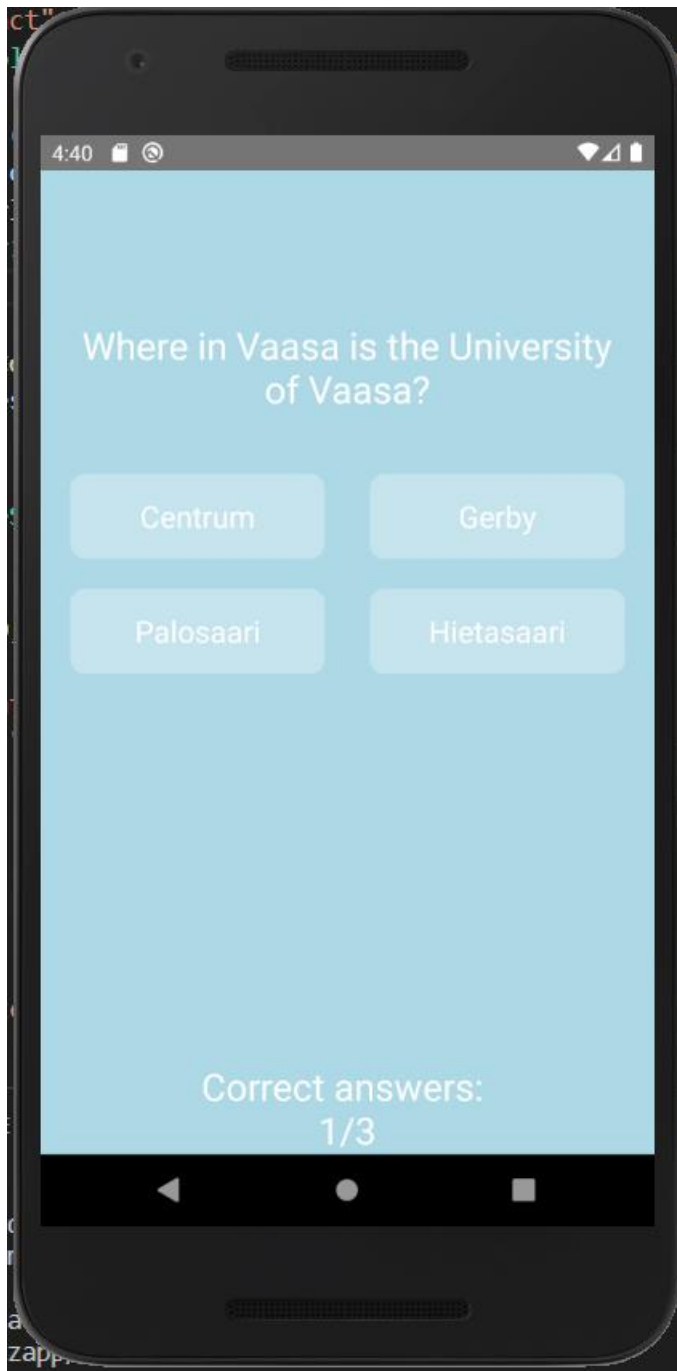


Image 5. Example of question in the app.



### **3 Data connections**

The application uses firebase for authentication. The authentication method is email. Because the application is developed with React Native, the firebase app connection is done via Web app config. The connection logic is copied from firebase.

Firebase connections is made as soon as the application starts. The connection is made from the main file. The main file also holds the navigation information between screens and components. The main app.js file has no UI components in but the first UI component to be rendered is the login screen and app.js file navigates to that screen automatically.

There is also a loading screen that is called in the very beginning before the login screen. If there is a connection issue with the firebase or the app then the loading screen does not change.

