

Lab 1: Firebase and Project set-up

Initial Set-up:

1. Create a new Android project with Kotlin
2. Make sure you're logged into your google account in your browser
3. Open the Firebase Assistant to connect your project to Firebase (Tools -> Firebase)
4. On the sidebar press Realtime Database -> Get started with Realtime Database [KOTLIN]
5. Press the "Connect to Firebase" button

Project Set-up:

6. Now your browser should open, and you should see "create a project" or "add a project", which you should press
7. Press continue and turn off Google Analytics (the switch is "on", so turn it off)
8. Once you've created the project and connected, return to here:
<https://console.firebase.google.com/u/0/>
9. You should see your project, you can open it and view the console
10. Inside the console on the side you'll see a navigation bar, click build -> Realtime Database
11. A create database button will appear, press that
12. Start it in test mode
13. Open the Data section and set up your database like this:

The screenshot shows the Firebase Realtime Database Data section. A collection named 'people' is selected. It contains two documents, '1' and '2'. Document '1' has three fields: 'name' with value 'Steve Jobs', 'role' with value 'Apple cofounder', and 'photo' with value 'empty'. Document '2' has three fields: 'name' with value 'Satya Nadella', 'role' with value 'Microsoft CEO', and 'photo' with value 'empty'. At the bottom, there are 'Cancel' and 'Add' buttons.

14. Press Add after it looks like the above photo
15. Set up your Rules like this:

```
{  
  "rules": {  
    ".read": true,  
    ".write": true,  
  }  
}
```

16. Press the Publish button after you've finished it

17. Now return to Android Studio and press the “Add Realtime Database SDK” button
18. Add a Kotlin data class called Person to your project, and a Kotlin class called PersonAdapter
19. Open activity.main.xml and add a RecyclerView to it with id rView
20. Create a new layout file called row_layout.xml
21. In row_layout.xml, convert the root to a LinearLayout (right click ConstraintLayout in the Component Tree -> Convert View -> LinearLayout)
22. Set the layout_width and layout_height to wrap_content
23. Add two TextViews (txtName and txtRole)
24. Now make sure your Person class looks like this:

```
data class Person(var name: String = "", var role: String = "", var photo: String = "")
```

Important: The field names match the keys of our database (name, role, photo)

Take screenshots of the Data and Rules section of your Firebase db and zip them together with your project.

This is part 1 of a 3 part lab, so make sure you've completed it correctly. Ask your professor if you have any issues.