

ASSIGNMENT3:(30%)

Firebase

Strengthen your ability to apply your knowledge of Firebase

Overview

Working on your own or group of two, create a simple UI for your Movie Database which requires the user to authenticate before allowing them to perform full CRUD operations (Create, Read, Update and Delete).

For the database component you will be using Firebase Firestore and for the authentication component you will be using Firebase Authentication.

Your UI should include these screens: A Movie List Screen and an Add/Edit Screen, a Register Screen and a Login Screen.

You may reuse some of the UI elements from previous assignments for this assignment.

Instructions:

Part 1 Movie Search/Favorite List Screen (25 Marks):

1. **Mandatory:** Ensure your Movie Favorite List Screen's logic (Activity) connects and works with Firebase Firestore (5 Marks).
2. Display your 20 Favourite Movies in a Table or similar Element (e.g., RecyclerView). Each Row in your list should include the Movie Title, Studio, a Thumbnail of the Movie Poster and the Critics Rating (5 Marks).
3. Each Row in your List should use a Custom View (5 Marks).
4. Include a UI Element or interaction that allows the User to Add a new movie to the Movie List by navigating to the Add/Edit Screen. When Navigation completes, ensure the Add/Edit screen modifies the Title and the main button to with an appropriate message (e.g., either Add or Edit) (2.5 Marks).
5. Include a UI Element or interaction that allows the User to Edit an existing movie in the Movie List by navigating to the Add/Edit Screen (2.5 Marks).
6. Include a UI Element or interaction that allows the User to Delete an existing movie in the Movie List (5 Marks).

Part 2 Add / Edit Screen (15 Marks):

1. **Mandatory:** Ensure your Add / Edit Screen's logic (ViewController or Activity) connects and works with **Firestore** (5 Marks).
2. Your Add / Edit Screen should include UI Elements (Labels and Text Fields) that allow the user to both view, edit or add a Movie (5 Marks).
3. Your Add / Edit Screen should include a UI Element that allows the user to submit their changes (2.5 Marks).

4. Your Add / Edit Screen should include a UI Element that allows the user to cancel any changes and navigate back to the Movie List Screen (2.5 Marks).

Part 3 Register Screen (15 Marks):

1. **Mandatory:** Ensure your Register Screen's logic (Activity) connects and works with Firebase Authentication (5 Marks).
2. Your Registration Screen should include UI Elements (Labels and Text Fields) that allow the user to register as a new user (5 Marks).
3. Your Registration Screen should include a UI Element that navigate the user back to the Login Screen when the user has completed registration (2.5 Marks)
4. Your Add / Edit Screen should include a UI Element that allows the user to cancel registration and navigate back to the Login Screen (2.5 Marks).

Part 4 Login Screen (15 Marks):

1. **Mandatory:** Ensure your Login Screen's logic (ViewController or Activity) connects and works with Firebase Authentication (5 Marks).
2. Your Registration Screen should include UI Elements (Labels and Text Fields) that allow the user to login as a returning user (5 Marks).
3. Your Login Screen should include a UI Element that allows the user to Login (2.5 Marks)
4. If the Login attempt is unsuccessful, an alert (or other UI Elements) should be displayed that informs the user that their Login attempt has failed. (2.5 Marks).

Part 5 Your App is Aesthetically Pleasing (10 Marks):

1. You've designed your App with good Aesthetic standards including appropriate margins, padding, colours, contrast and overall layout while always keeping the user in mind (**10 Marks**).

Part 6 Code Quality: (10 Marks)

1. Ensure your app includes the following components (**10 Marks**).
 - a. Clean Build
 - b. MVVM Architecture.
 - c. LiveData.
 - d. ViewBinding.
 - e. Firebase.
 - f. Error handling

Part 7 Video Presentation: (10 Marks)

1. Create a Short Video presentation on YouTube or another streaming provider. You must include a short PowerPoint (or Google Slides) Slide Deck that includes a single slide to start your video (**10 Marks**)
 - a. The **first** (and only) **Slide** of your Slide Deck must include a **current image** of you and team members (no avatars allowed) that is displayed appropriately on the page. You must also include your Full Name(s), Student ID(s), the Course Code, Course Name, and your Assignment information.
 - b. You will **demonstrate** your app's functionality.
 - c. Sound for your Video must at an appropriate level so that your voice may be **clearly heard**.
 - d. Your screen resolution should be set so that your code and app demonstration is **clearly visible**.
 - e. Your Short Video should run no more than 5 minutes.
 - f. Your Video may be unlisted, but must be accessible to the instructor

Submission Details:

Your submission should include:

- A zip archive of your Project files (Mandatory)
- Format for Zip file: **assignment{Number}_{StudentLastName}.zip**
- A link to your Video Presentation
- UserName/PWD for your app

Assessment:

You will be assessed on the following:

	Not Quite	Good Work	Awesome
Movie Search/ Favorite Screen (25 Marks)	(0 - 8 marks)	(9 - 17 marks)	(18 - 25 marks)
Add / Edit Screen (15 Marks)	(0 - 5 marks)	(6 -10 marks)	(11 - 15 marks)
Register Screen TBD (15 marks)	(0 - 5 marks)	(6 -10 marks)	(11 - 15 marks)

	Not Quite	Good Work	Awesome
Login Screen (15 marks)	(0 - 5 marks)	(6 -10 marks)	(11 - 15 marks)
Your App is Aesthetically Pleasing (10 Marks)	(0 - 3 marks)	(4 - 7 marks)	(8 - 10 marks)
Code Quality MVVM LiveData Firebase (10 marks)	(0 - 3 marks)	(4 - 7 marks)	(8 - 10 marks)
Video Presentation Your short video must demonstrate your site and describe your code (10 marks)	(0 - 3 marks)	(4 - 7 marks)	(8 - 10 marks)

Due Date:

Check Class Website

Late Submission:

1 day late	-20% cumulative penalty
2 days late	-40% cumulative penalty
3 days late	-100% cumulative penalty

Assignment Weight:

Assignment Three is worth 30% of your final grade.

Please submit your assignment online under Assignments > Assignment One.

!important

Please ensure that any work you submit is your own unique and independent work. Work submitted that is found to be not your own unique, and independent work will be subjected to a grade of 0 and considered to be academic misconduct.