PROG3210 - MOBILE DEVELOPMENT

ASSIGNMENT3:(30%)

Firebase

Strengthen your ability to apply your knowledge of Firebase

Overview

Overview: 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.

Your app must be written in either Java or Kotlin. Hybrid platforms (e.g., React Native) are not acceptable.

You can work in a **group of three** from your section.

Any compressed project over 50MB will receive a mark of zero.

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 Favorite 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 Ul 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 Ul 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 Ul 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 (Activity) connects and works with **Firebase Fir sestore** (5 Marks).

2. Your Add / Edit Screen should include Ul Elements (Text Fields) that allow the user to both view, edit or add a Movie (5 Marks).

3. Your Add / Edit Screen should include a Ul Element that allows the user to submit their changes (2.5 Marks).

4. Your Add / Edit Screen should include a Ul 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 Ul Elements (Text Fields) that allow the user to register as a new user (5 Marks).

3. Your Registration Screen should include a Ul 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 Ul 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 (Activity) connects and works with Firebase Authentication (5 Marks).

2. Your Registration Screen should include Ul Elements (Text Fields) that allow the user to login as a returning user (5 Marks).

3. Your Login Screen should include a Ul Element that allows the user to Login (2.5 Marks)

4. If the Login attempt is unsuccessful, an alert (or other Ul Elements) should be displayed that informs the user that their Login attempt has failed. (2.5 Marks).

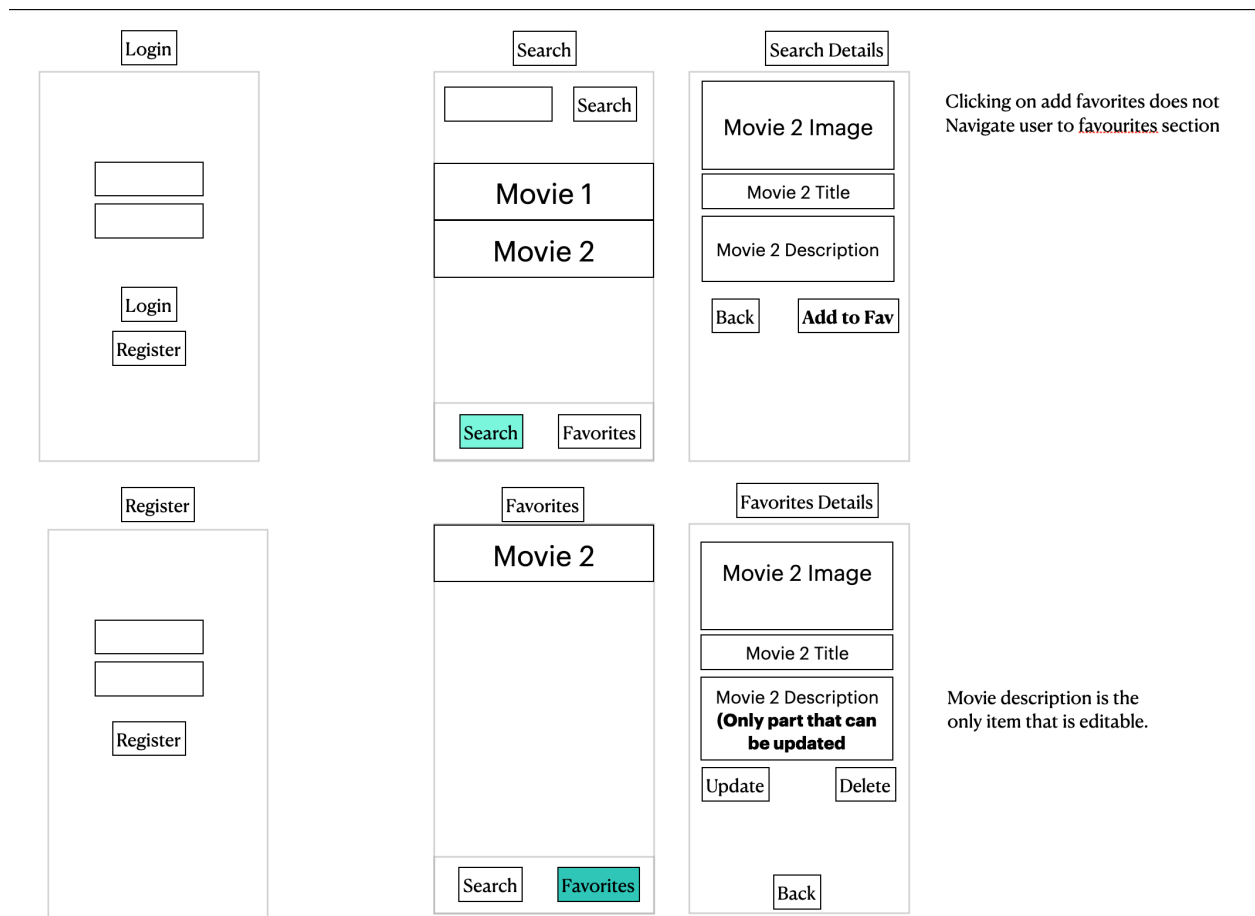### *Part 5 Your App is Aesthetically Pleasing (10 Marks):*

1. You've designed your App with good Aesthetic standards including appropriate margins, padding, colors, 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.

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

Login

Search

Search Details

Search

Movie 1

Movie 2

Movie 2 Image

Movie 2 Title

Movie 2 Description

Back   **Add to Fav**

Clicking on add favorites does not
Navigate user to favourites section

Search   Favorites

Register

Favorites

Favorites Details

Movie 2

Movie 2 Image

Movie 2 Title

Movie 2 Description
**(Only part that can
be updated**

Movie description is the
only item that is editable.

Register

Update   Delete

Search   Favorites

Back

Submission Details:

Your submission should include:

      a. A zip archive of your Project files (Mandatory)

      b. Format for Zip file: **assignment{Number}_{StudentLastName}.zip**

      c. A link to your Video Presentation

      d. UserName/PWD for your app

      e. A link to GitHub (public, make sure link does not expire)

Assessment:

You will be assessed on the following:

	Not Quite	Good Work	Awesome
Movie 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)
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)

	Not Quite	Good Work	Awesome
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 Three.

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