ENCS515 - ADVANCED COMPUTER SYSTEMS ENGINEERING LABORATORY

Android App Design and Implementation - Lab Project

Submission Date: 26/8/2020   Discussion Date: Will be determined later
Work: Individually (One Student)
Application Name: MovieApp

Project Description:

A startup company is asking you to build an Android application (i.e., MovieApp) that allows their customers to view and rate movies without watching them using a simple application. Using a local database, the application should be simple and user friendly. The intended application should include the following functionalities:

1. Introduction Layout

This layout has a "connect" button which will connect to a Server using REST to load movies data into an array-List.

1.1. If connection successful → go-to login and registration section.

1.2. If connection unsuccessful (any error) → show error message and stay on the same layout.

2. Login and Registration Layout

This layout should have (1) Login layout and (2) a "Sign-Up" button.

2.1. On the main page (i.e., first page) the customer can enter his/her e-mail and password that are registered in the sqlite database to login to a special menu List. This layout also must have a check box called "remember me" which will save the email and password in shared preferences so next time we login we do not need to type the email and password.

2.2. The Sign-Up button will redirect us to another layout (fragment) where we will enter our email (must be a valid email) as a primary key, first name (not less than 3 characters), gender (spinner), password (must not be less than 3 characters and must include at least 1 small character, 1 capital letter, 1 number, and one special character), confirm password (the password should be encrypted using a secure Hash Function) and one phone number (must be at least 14 digit number and starts with 009705. If all the previous conditions are entered correctly then and only then we can register.

3. Home Layout

This layout should be a **Navigation Drawer Activity** which will contain the navigation bar with the following functionality:

3.1. **Movie List:** which will contain all the movies fetched from the API link.

3.2. **Watch List:** which will contain all movies added to my watch list.

3.3. **Rated List:** which will contain all movies rated by the customer, each with its rating.

3.4. **Profile:** which will allow the customer to change his password and first name.

3.5. **Contact us:** this will redirect the customer to a new layout to help sending an email to the provider.

3.6. **Logout: which will log the customer out from this profile and redirect him to the login page.**

3.1. Movie List:

In this List you must use (Recycler View). This list should include all movies where each one should be defined by (**Movie Poster** (get it from the "posterurl"), title, release date, duration, imdb-Rating and genres) so if the customer clicked on one card, then all details of the that pressed movie appears **(this must be done using fragments)**. Also, a filter to search on a special type should be implemented to search for a movie based on (1) release date, (2) duration and (3) imdbRating (multiple filters can be applied together. E.g., we can search for a movie released in 2018-02-14 with duration between 120 -160 minute(min-max), and imdb rating greater than 7.

Although, beside each movie, there must be a "add to Watch List" button which will add the selected movie to watch list (if the movie is already added then the button should be "remove from watch list") and a rate button which will pop up a rating bar stars layout with will ask the user to rate the selected movie. (Rating must be from 0 to 10 with half star step).

When choosing a movie, all movie details must appear and the user can add comments below the details, these comments should be shown to all users each with his first name and the comment message. (think of it as youtube comments below the videos).

3.2. Watch List

This will only include all movies added to watch list with the date and time when they were added.

3.3. Rated List

This will include all rated movies each with the its rated value besides it.

3.4. Profile

In this layout, each customer should view all this personal information and be able to change his first name and password (with all the conditions from the sign-up page) (when changing password, the old password, new password and confirm password are mandatory)

3.5. Contact us

This layout should have one send button and subject edit-text. The user is required to add the email subject text and click on the send button which will open Gmail to send an email to the provider on his main email "movies@movies.com" with email title of customer name and an email body what is stated in the contact us layout edit-text.

3.6. Logout:

Which will log the customer out from this profile and redirect him to the login page.

The project must be designed using Android packages and must use:

- Android Layouts (dynamically and statically).
- Intents and Notifications (toast messages).
- SQLite Database.
- Animation (frame of tween).
- Fragments.
- Shared Preferences.
- REST. Using this link https://firebasestorage.googleapis.com/v0/b/advance-proj1.appspot.com/o/movies-in-theaters.json?alt=media&token=e3121ae7-be1b-4480-99d8-c1d0ad2eaa2f

We would like to leave the application UI design up to you and your creativity. The following are samples for a Restaurant Application where you might get some design ideas from them:

Home screen (navigation drawer)

- Home
- Menu categories
- Your Orders
- Your Favorites
- Hot deals
- Notification
- Profile
- Logout

Restaurant Home

Havana Bar n Restaurant
Nygatan 20 24232 Horby, Sweden

From 9 am to 10 pm week days and 10 am to 11 pm weekends

There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some form, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text. There are many variations of passages of

Menu Categories

- Salad Menu
- Noodles Category
- Potato Menu
- Burger Menu

Salad Menu

Search

Fried Rice with Sauce
$30.00

Vegetable Salad
$12.00

Vegetable Salad

Vegetable Salad

$12.00

Menu details and nutrition

Broccoli salads. Corn salads. Tomato salads. Green salads. And salad dressings, of course. Get endless flavor combos for fresh vegetable salads. Broccoli salads. Corn salads. Tomato salads. Green salads. And salad dressings, of course. Get endless flavor combos for fresh vegetable salads.

CUSTOMIZE YOUR ORDER

Vegetable Salad

Add Menu Item Option

- [ ] Add extra sauce
- [ ] Add extra chicken
- [ ] Mix with beef

Add note to menu item (optional)

CANCEL   OK

ADD TO CART