**YAZ18306 Mobil Programming - Final Assignment (Project)**

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We have programmed the assignment (İzmir Tour Guide App) using Flutter in VS Code Environment. Built the project for Android OS and gave the .APK file in the submitted zip file.

\*All of the coding and this report are done in English to follow coding ethics.

We used following external packages (you can find version codes in *pubspec.yaml*):

* Shared Preferences from native Android, for database simulation. (User login information and comments)
* OKToast to be able to show native toast messages.
* Sliding Up Panel for a better UX design.

**Design Information**

The app consists of 4 screens in total. A login screen, categories screen, items screen and favorite items screen.

**Login Screen:** User is greeted with a classical login screen. There is a slide up panel in the bottom to be able to sign up to the app. Username of the user is treated as it’s name and shown in the comments section.

Appropriate error messages are shown with oktoast package to let the user know if he/she is not signed up, entered wrong information or successfully logged in. This logic is done by using shared preferences package. Whenever a user signs up, the information is locally saved with encryption. The information is checked on a login attempt.

**Categories Screen:** After a successful login, user is redirected to the category screen. There are 7 categories in total: Parks, Libraries, Historical Places, Hotels, Markets, Places of Worship. We created a JSON data set for category items (given in the submitted zip file) to simulate an API request response. Items are listed as cards and when clicked, user will be redirected to a screen where items of the selected category will be listed. There is also a Logout button at the and of app bar.

**Items Screen:** When user selects a category, items of the category will be listed as cards. Cards consists of a title, an image of the place, a description, open hours information, price information and comments for the item. To achieve a scrollable screen ListView is used in both categories and items screens. There is also a favorites button at the end of app bar. There is a “Make a comment” button on the bottom of each item card. Whenever this button is clicked, user will see an dialog which asks for a comment and a rating (list box). There is also a Floating Action Button to be able to go back to the categories screen.

**Favorites Screen:** When user is clicks on a favorites button under a category, following steps are executed:

Algorithm checks the shared preference object for the saved JSON data and looks if there are any comments which has the same name as the current user and has more than 4 stars. If so, the item listed on the screen. Other items won’t be listed on favorites screen as requested in the assignment.

**How does comments work?**

Comments are saved in the JSON file with other information of the items. Whenever a user comments on an item, the app gets the JSON data and converts it to a map list. Adds the new comment to the proper place and reconverts it to JSON string and saves it locally (using shared preference).

**Assets:** We added necessary images and fonts to the assets folder of the project. In the JSON data set under each item there’s a attribute named “imageUrl”. This attribute takes values like “hotelImages/swissotel.png” which specifies the location of image file under *assets* folder.

\* ”build” folder is not included in the submitted project folder due it’s large size.