CS378: Framework-Based Software Development for Hand-Held Devices

Project #2

Due time: 11:59 pm on 10/29/2023
Submit using Blackboard web site
Total points: 100
Instructors: Ugo Buy

The goal of this project is to design and code a new Flutter app about things to do in Chicago. Your app will consist of a single screen containing three tabs containing information about (1) Chicago restaurants, (2) Chicago sports teams (e.g., the Chicago Bulls, the Chicago Fire, etc.), and (3) Chicago attractions (e.g., the Steppenwolf theatre, the Lincoln Park Zoo, the Lyric Opera House, the Museum of Science, etc.)

The display of your app will consist of an *AppBar* bearing the title "Explore Chicago", a body and a flexible action button. The background of the *AppBar* will be a flex space displaying a picture of your choice of Chicago. The *AppBar* will contain a *TabBar* with three tabs, one each for restaurants, sports teams and theaters. Initially, the app will display the third tab, that is, Chicago attractions.

The three tabs will each contain a list view of at least 5 items, whether restaurants, sports teams, or attractions. Items in the list should be displayed as a boxes with rounded corners; the boxes should be clearly separated from each other. Each box will have an appropriate amount of padding and contain the following items:

1. A thumbnail picture of the item (e.g., a picture of a restaurant) on the left side of the box. The shape of the picture should be roughly square.

2. A title in the top center of the box.

3. The street address of the attraction below the title in the center of the box. The address should be aligned on the left side with the title above. For the sports teams, put the address of their home arena (e.g., the address of Wrigley Field for the Chicago Cubs.) The street address should take no more than two lines in the box.

4. Finally, the bottom right corner of each box has the usual thumbs-up and thumbs-down icon buttons for the likes and dislikes of the attractions. The number of button presses is shown next to each of the two icon buttons. The order of the attractions in the boxes should match the attractions in the first tab.

Finally, the items in each list should interact with the user. Whenever the user clicks on an item, an *AlertDialog* will appear on the screen stating the item that was clicked (e.g., "You clicked on the Chicago Zoo"). The dialog will disappear when the user clicks on the "OK" button in the bottom right corner of the alert dialog. Make sure that the alert dialog uses appropriate padding for its content.

Pressing the flexible action button will show a *SnackBar* message indicating the tab currently being displayed. The *SnackBar* will include an action button that dismisses the *Snackbar*.

Implementation notes. To test your app use a Pixel 5 Android Virtual Device running Android 13 (API 33). Design your app in such a way that it will display optimally in portrait mode; don't worry about landscape mode.

You must work alone on this project. You can discuss general design decisions on Piazza but refrain from posting project code. Submit the entire Studio project as a zip archive using the submission link in the assignment's page on Blackboard. The archive should be named <FirstName_LastName_mp2.zip>.