National University of Computer and Emerging Sciences

Software for Mobile Devices
Fall 2024

Assignment 2

Instructions:

- You are required to do this assignment **individually.**
- You must do this assignment using Android Studio with Java and XML language. **No template should be used.**
- Please properly comment on your code.
- It is highly preferable that you code as per <u>Android</u> and <u>Java styling guide</u>. However, it won't affect the marking criteria.
- Submit this assignment on Google Classroom before the deadline.
- **Create a Git repository for your project and share the repository link as your submission.**

TASK (30 Marks)

Objective:

Create a basic To-Do List application where users can add, view, and manage tasks. You will implement a splash screen with animations, use fragments for task entry, and design a responsive user interface using ConstraintLayout.

Guidelines:

- All the strings must be in the "strings.xml"
- All the dimensions must be in "dimens.xml"
- All the colors should be in "colors.xml

1. Splash Screen with Animations (Translate & Scale):
- Create a splash screen that displays the app's logo.
- Add animations:
  - **Translate:** The logo should move from the top of the screen to the center.
  - **Scale:** The logo should grow slightly in size as it moves.
- When the animation finishes, navigate to the main activity.

● Use StartActivityForResult to manage navigation between activities.

Note: Splash screen layout must be responsive using ConstraintLayout.

Use a logo of your own choice.

2. Main To-Do List Screen:
● Display a list of tasks the user has added.
● Each task should be displayed using TextView.
● Include an "Add New Task" button (+) that opens a new fragment to input task details.

Components:

● **Task List**: Simple TextView for each task (e.g., "Buy groceries").
● **Add New Task Button**: A floating action button (FAB) for adding tasks. When pressed, this should open the **Task Input Fragment**.

3. Task Input Fragment:
● Design a fragment where users can input details of a new task, such as task name and description.
● Add a "Save" button to submit the task.
● After saving, return to the main screen and display the new task in the list.

4. Responsive Design:
○ Ensure that the app layout adapts to both portrait and landscape modes.
○ Use **ConstraintLayout** for all screens and fragments to maintain a responsive UI that works well on different screen sizes.

Features:

1. **Splash Screen with Translate and Scale Animations**
2. **Main To-Do List Page with Add Task Button**
3. **Fragment for Task Input**
4. **Responsive UI Using ConstraintLayout**

Deliverables:

- XML layouts for each screen and fragment.
- Java code for the splash screen animations, fragment navigation, and list functionality.
- Make sure to log fragment lifecycle events (onCreate, onStart, onResume, etc.) to the console.

Additional Instructions

- **Consistency**: Maintain design consistency across all screens in terms of color, fonts, and spacing etc
- **Usability**: Ensure that all interactive elements (buttons, forms) are user-friendly and clearly labeled.
- **Testing**: Test the navigation flow between screens to ensure it functions as described.

GOOD LUCK!