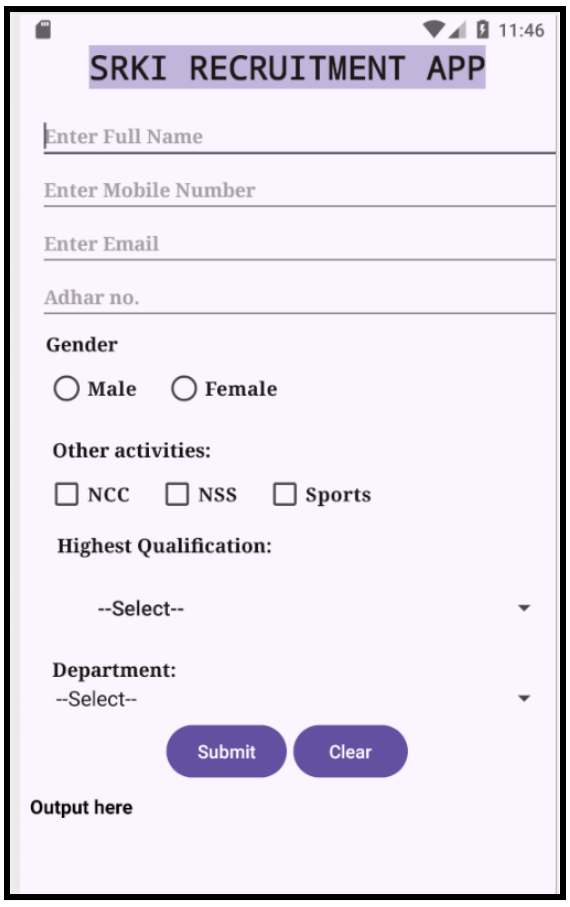
You are tasked with developing a mobile application called SRKI Recruitment App, which streamlines the recruitment process.

Practical assignment -1

Aim: Acquaintance with layouts and various **UI components** and their attributes.

Task: Design an activity as shown below utilizing **Linear, Relative, and Constraint layouts** to capture job details entered by the user.

Note: Incorporate attributes such as ems, background, textSize, layout_margin, padding, layout_weight, textStyle, textColor, fontfamily, background_tint, etc to create an aesthetically pleasing layout.



Assignment 2:

Aim: Populate and retrieve details from radio buttons, checkboxes, spinner, and edit text fields upon button click.

Tasks:

- Referring to assignment 1, populate the spinner for Highest Qualifications using ArrayAdapter. (**Options: Ph.D., Masters, Bachelors)**
- Populate Department Spinner using strings.xml **(options: CS, BT, MB)**
- On submit, display name, RadioButton, Spinner, and CheckBox details in TextView(s).

Output Example:

Name: Thomas
Gender: Male
Other Activities: NCC, Sports
Highest Qualification: Masters
Department: CS

Advance:

Add backend validation to ensure the user enters all the information before submitting details.

Assignment 3

Aim: Utilizing **Intent** for Activity Navigation and Data Passing.

Task:

Referring to Assignment 1, modify the registration activity to perform the following operations:

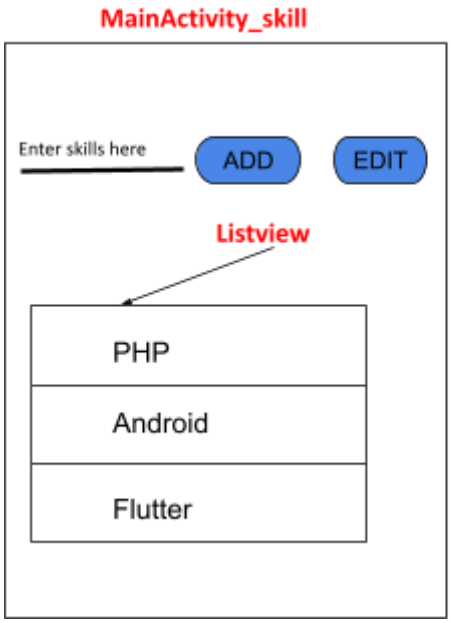
- On submitting, navigate the user to the second activity **"MainActivity_Skills".**
- Using Intent Display details inputted in Registration Activity on **“ManinActivity_Skills”.**

Note: Adhar no. must be an integer value (Eg: 1234)

Assignment 4

Aim: Performing CRUD on **ListView** along with **validation and User-defined functions using Toast.**

Task: Referring to Assignment 2, modify the "MainActivity_skills" activity to prompt users to input a minimum of **three skills** they are proficient in. **Add the following UI controls:**



Operations:

1. **Add:** Insert and display the skills in the ListView. **Show a Toast** message.
2. **Select:** Change the color of the selected item **(android: listSelector)** and display it in a Toast.
3. **Update:** Modify the selected item. Show a Toast message for a successful update.
4. **Remove:** Delete the selected item on **long-press** and show a Toast message.

Note: Create a user-defined function CallToast(String s) to display messages for CRUD operations.

Advance: **Implement validation to ensure the skill textbox is not empty when inserting or editing data. Display appropriate messages in Toast.**

Assignment 5

Aim: Managing **Shared Preferences** across multiple activities.

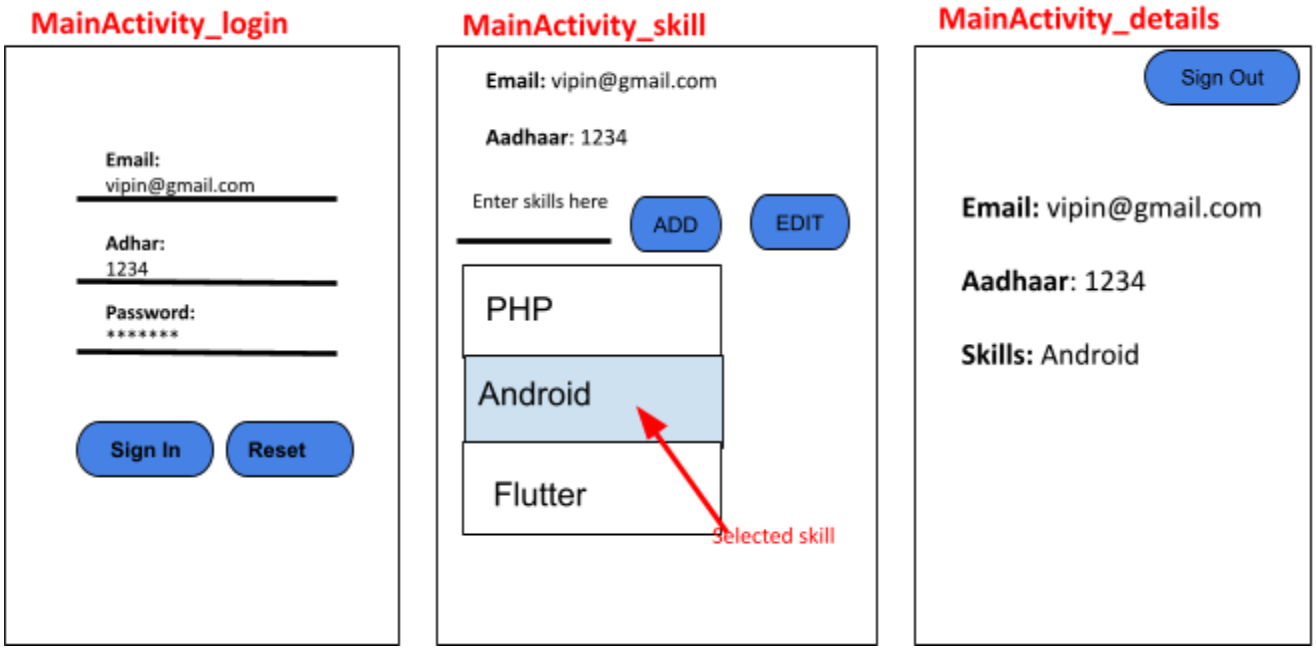
Task: Create the following activities: 1**)** MainActivity_login 2) MainActivity_details

Log in using the following credentials:

Email: vipin@gmail.com (String)
Adhaar number: 1234 (Integer)
Password: Vipin

1. Upon successful login, **save email and Adhaar in Shared Preferences** and display it on **"MainActivity_skill"** (created in a previous assignment).
2. Add skills to the ListView, preserve the selected skill in Shared Preferences, and store it.
3. Retrieve the **email, Adhaar, and skill** from Shared Preferences on a button click event, and display them in the newly created activity **"MainActivity_details."**
4. Remove data from Shared Preferences on Signing Out and navigate to "**MainActivity_Login".**

Output Example:



Assignment 6

Aim: Implementing **Menus** and **web View**

Task 1:

Referring to assignment 5, implement the **Options Menu in "MainActivity_details"** with the following options:

1) **"Skill":** Navigate to the "**MainActivity_skills**" activity.
2) **"About SRKI":** Display an About page using **WebView** when selected
    a) **Create a new activity named "AboutActivity".**
    b) **In "AboutActivity",** use a WebView to load **https://www.srki.ac.in/.**
3) **"Logout":** Clear data from shared preference and navigate to login activity

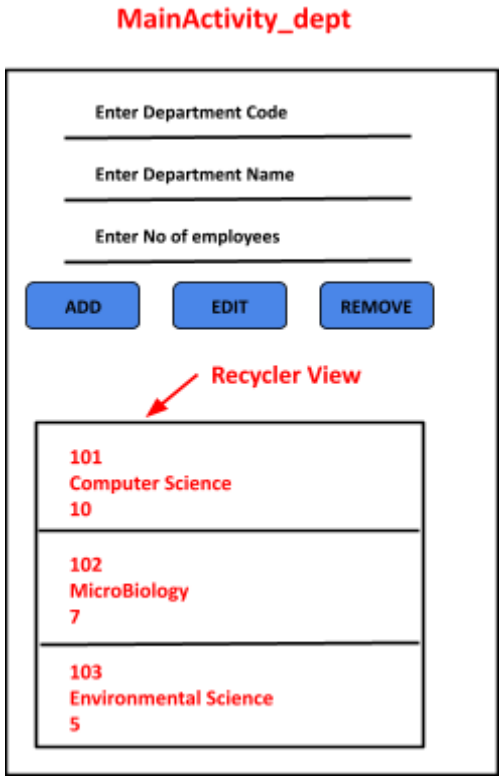
Task 2:

Referring to assignment 4, implement a **pop-up menu on Listview in "MainActivity_skills".** Allow the user to delete selected skills.

Admin Dashboard Enhancement: Department Management
Assignment 7

Aim: To develop an admin-side module by using **RecyclerView** to display and manage a list of departments with **ArrayList<String[]>** as the data source.

Task: Create a new activity, **"MainActivity_dept," (refer to the figure below)** to use RecyclerView for displaying and managing department information.



Operations:

1. **Create:** Add department details, including Code, Name, and Number of Employees.
2. **Remove:** Implement functionality to delete department details using the Department Code.
3. **Update:** Develop an edit feature to modify department details based on the Department Code.
4. **Display:** Use RecyclerView to showcase the list of departments.

Assignment 8

Aim: To develop a department management feature in the SRKI Recruitment App using **SQLite,** supporting CRUD (Create, Read, Update, Delete) operations and including a **SearchView** for efficient searching.

Task: Implement CRUD operations for department management in an SQLite database.

Database Table:

Tbl_dept: (dept_code - int primary key autoincrement, dept_name, num_employees)

Operations

- **Create:** Allow the user to register department details (Dept Name, Dept Code, Number of Employees) in the SQLite database.
- **Read:** Display registered department details in a ListView. Use ArrayList<String[]> to show multiple pieces of information for each department.
- **Update:** Allow the user to update department details using dept_code.
- **Delete:** Allow the user to delete department details using dept_code.
- **Search:** Implement a **SearchView** to allow users to search for department details.

Advanced:

- Add a **context menu** to the ListView to enable data deletion, triggered by a long click on list items.
- Prompt an **alert dialog box** for confirmation before deleting a record.

Assignment 9

Aim: Performing CRUD Operations on **MS SQL Server Database.**

Task: Referring to Assignment 8, incorporate functionality for storing and retrieving data from the **MS SQL Server database.**