PRACTICAL NO 1

Q1 Activity.xml

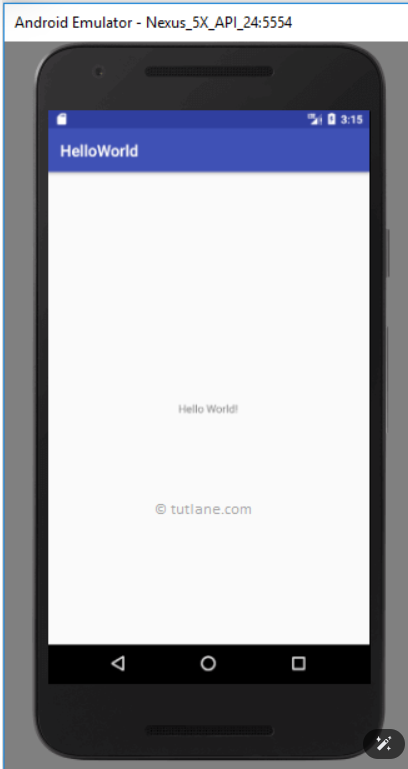
<?xml version="1.0" encoding="utf-8"?>  
<android.support.constraint.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    xmlns:app="http://schemas.android.com/apk/res-auto"  
    xmlns:tools="http://schemas.android.com/tools"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    tools:context="com.tutlane.helloworld.MainActivity">  
    <TextView  
        android:layout\_width="wrap\_content"  
        android:layout\_height="wrap\_content"  
        android:text="Hello World!"  
        app:layout\_constraintBottom\_toBottomOf="parent"  
        app:layout\_constraintLeft\_toLeftOf="parent"  
        app:layout\_constraintRight\_toRightOf="parent"  
        app:layout\_constraintTop\_toTopOf="parent" />

</android.support.constraint.ConstraintLayout>

MainActivity.java

package com.tutlane.helloworld;  
import android.support.v7.app.AppCompatActivity;  
import android.os.Bundle;  
public class MainActivity extends AppCompatActivity {  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity\_main);  
    }  
}

Output



Q2.

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<TextView

android:id="@+id/studentName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Student Name: Khushi"

android:textSize="24sp"

android:layout\_marginBottom="16dp"/>

<TextView

android:id="@+id/studentMarks"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Marks: 95"

android:textSize="24sp"/>

</LinearLayout>

package com.example.studentinfo;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

}

}

Practical 5

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<!-- Student Name -->

<TextView

android:id="@+id/studentName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Name: John Doe"

android:textSize="18sp"

android:layout\_marginBottom="16dp"/>

<!-- Student Age -->

<TextView

android:id="@+id/studentAge"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Age: 20"

android:textSize="18sp"

android:layout\_marginBottom="16dp"/>

<!-- Student Mobile Number -->

<TextView

android:id="@+id/studentMobile"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Mobile: +1234567890"

android:textSize="18sp"/>

</LinearLayout>

package com.example.studentinfoapp;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main); // Use the layout we created

}

}

Absolute layout

<?xml version="1.0" encoding="utf-8"?>

<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<!-- Student Name -->

<TextView

android:id="@+id/studentName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Name: John Doe"

android:textSize="18sp"

android:layout\_x="50dp"

android:layout\_y="100dp"/>

<!-- Student Age -->

<TextView

android:id="@+id/studentAge"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Age: 20"

android:textSize="18sp"

android:layout\_x="50dp"

android:layout\_y="150dp"/>

<!-- Student Mobile Number -->

<TextView

android:id="@+id/studentMobile"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Mobile: +1234567890"

android:textSize="18sp"

android:layout\_x="50dp"

android:layout\_y="200dp"/>

</AbsoluteLayout>

package com.example.studentinfoapp;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main); // Use the layout we created

}

}

**Pr-6**

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<!-- TableLayout for displaying students' information -->

<TableLayout

android:id="@+id/tableLayout"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:stretchColumns="1"

android:padding="16dp"

android:layout\_marginTop="16dp"

android:layout\_marginBottom="16dp">

<!-- Table header row -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:background="?android:attr/selectableItemBackground">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Name"

android:textStyle="bold"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Age"

android:textStyle="bold"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Mobile"

android:textStyle="bold"

android:padding="8dp"/>

</TableRow>

<!-- Row 1 -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="John Doe"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="20"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+1234567890"

android:padding="8dp"/>

</TableRow>

<!-- Row 2 -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Jane Smith"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="22"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+0987654321"

android:padding="8dp"/>

</TableRow>

<!-- Row 3 -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Sam Wilson"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="21"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+1122334455"

android:padding="8dp"/>

</TableRow>

<!-- Row 4 -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Emily Davis"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="19"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+2233445566"

android:padding="8dp"/>

</TableRow>

<!-- Row 5 -->

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Michael Brown"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="23"

android:padding="8dp"/>

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+3344556677"

android:padding="8dp"/>

</TableRow>

<!-- Add rows 6-10 in a similar manner -->

</TableLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.studenttableapp;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main); // Load the table layout

}

}

<?xml version="1.0" encoding="utf-8"?>

<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:padding="16dp">

<TextView

android:id="@+id/dataTypesTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Displaying Data Types in OOP"

android:textSize="20sp"

android:layout\_gravity="center" />

</FrameLayout>

package com.example.datatypesdemo;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Get reference to the TextView from the layout

TextView dataTypesTextView = findViewById(R.id.dataTypesTextView);

// Declare different data types

int intVar = 10;

float floatVar = 3.14f;

boolean boolVar = true;

char charVar = 'A';

String stringVar = "Hello, World!";

// Display data types in TextView

String data = "Integer: " + intVar + "\n" +

"Float: " + floatVar + "\n" +

"Boolean: " + boolVar + "\n" +

"Character: " + charVar + "\n" +

"String: " + stringVar;

dataTypesTextView.setText(data);

}

}

**Pr-7**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<!-- Username Label -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Username"

android:textSize="18sp"

android:layout\_marginBottom="8dp"/>

<!-- Username Input Field -->

<EditText

android:id="@+id/usernameEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter username"

android:padding="10dp"

android:layout\_marginBottom="16dp"/>

<!-- Password Label -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Password"

android:textSize="18sp"

android:layout\_marginBottom="8dp"/>

<!-- Password Input Field -->

<EditText

android:id="@+id/passwordEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter password"

android:padding="10dp"

android:inputType="textPassword"

android:layout\_marginBottom="16dp"/>

<!-- Submit Button -->

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit"/>

<!-- Result Text -->

<TextView

android:id="@+id/resultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

android:textSize="18sp"

android:layout\_marginTop="16dp"/>

</LinearLayout>

package com.example.usernamepassword;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Get references to the EditText fields and Button

final EditText usernameEditText = findViewById(R.id.usernameEditText);

final EditText passwordEditText = findViewById(R.id.passwordEditText);

Button submitButton = findViewById(R.id.submitButton);

final TextView resultTextView = findViewById(R.id.resultTextView);

// Set click listener on submit button

submitButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Get username and password entered by the user

String username = usernameEditText.getText().toString();

String password = passwordEditText.getText().toString();

// Display the entered username and password

String result = "Username: " + username + "\nPassword: " + password;

resultTextView.setText(result);

}

});

}

}

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<!-- Name input field -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter Name"

android:textSize="18sp"/>

<EditText

android:id="@+id/nameEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name"

android:padding="10dp"/>

<!-- Age input field -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter Age"

android:textSize="18sp"/>

<EditText

android:id="@+id/ageEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Age"

android:padding="10dp"/>

<!-- Email input field -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter Email"

android:textSize="18sp"/>

<EditText

android:id="@+id/emailEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Email"

android:padding="10dp"/>

<!-- Submit Button -->

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit"/>

<!-- Display result -->

<TextView

android:id="@+id/displayInfoTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

android:textSize="18sp"

android:layout\_marginTop="16dp"/>

</LinearLayout>

package com.example.studentinfo;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Get references to the EditTexts, Button, and TextView

final EditText nameEditText = findViewById(R.id.nameEditText);

final EditText ageEditText = findViewById(R.id.ageEditText);

final EditText emailEditText = findViewById(R.id.emailEditText);

Button submitButton = findViewById(R.id.submitButton);

final TextView displayInfoTextView = findViewById(R.id.displayInfoTextView);

// Set OnClickListener on the Submit Button

submitButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Get input data

String name = nameEditText.getText().toString();

String age = ageEditText.getText().toString();

String email = emailEditText.getText().toString();

// Display entered information

String info = "Name: " + name + "\n" +

"Age: " + age + "\n" +

"Email: " + email;

displayInfoTextView.setText(info);

}

});

}

}

**Pr-8**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- Search Label -->

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Search Engine"

android:textSize="24sp"

android:layout\_marginBottom="16dp"/>

<!-- AutoComplete TextView for search -->

<AutoCompleteTextView

android:id="@+id/searchAutoCompleteTextView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter search term"

android:padding="10dp"/>

<!-- Search Button -->

<Button

android:id="@+id/searchButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Search"

android:layout\_marginTop="16dp"/>

</LinearLayout>

package com.example.searchengine;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.AutoCompleteTextView;

import android.widget.Button;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

AutoCompleteTextView searchAutoCompleteTextView = findViewById(R.id.searchAutoCompleteTextView);

Button searchButton = findViewById(R.id.searchButton);

// Sample search suggestions

String[] suggestions = {"Google", "GitHub", "Java", "Android", "OpenAI", "StackOverflow", "Reddit"};

// Set up the adapter for AutoCompleteTextView

ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple\_dropdown\_item\_1line, suggestions);

searchAutoCompleteTextView.setAdapter(adapter);

// Handle search button click

searchButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String query = searchAutoCompleteTextView.getText().toString();

Toast.makeText(MainActivity.this, "Searching for: " + query, Toast.LENGTH\_SHORT).show();

}

});

}

}

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<!-- AutoComplete TextView for subjects -->

<AutoCompleteTextView

android:id="@+id/subjectsAutoCompleteTextView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Subject"

android:padding="10dp"/>

</LinearLayout>

package com.example.subjectsautocomplete;

import android.os.Bundle;

import android.widget.ArrayAdapter;

import android.widget.AutoCompleteTextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

AutoCompleteTextView subjectsAutoCompleteTextView = findViewById(R.id.subjectsAutoCompleteTextView);

// List of subjects

String[] subjects = {"Python", "MAD", "NIS", "MAN", "ETI", "EDE"};

// Set up adapter for AutoCompleteTextView

ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android.R.layout.simple\_dropdown\_item\_1line, subjects);

subjectsAutoCompleteTextView.setAdapter(adapter);

}

}

**Pr-9**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="16dp">

<!-- ToggleButton to turn Bluetooth On/Off -->

<ToggleButton

android:id="@+id/bluetoothToggleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textOff="Bluetooth Off"

android:textOn="Bluetooth On" />

<!-- TextView to display Bluetooth status -->

<TextView

android:id="@+id/bluetoothStatusTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Bluetooth Status: Off"

android:textSize="18sp"

android:layout\_marginTop="20dp"/>

</LinearLayout>

package com.example.bluetoothstatus;

import android.bluetooth.BluetoothAdapter;

import android.os.Bundle;

import android.view.View;

import android.widget.Switch;

import android.widget.TextView;

import android.widget.ToggleButton;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private BluetoothAdapter bluetoothAdapter;

private ToggleButton bluetoothToggleButton;

private TextView bluetoothStatusTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Get references to the views

bluetoothToggleButton = findViewById(R.id.bluetoothToggleButton);

bluetoothStatusTextView = findViewById(R.id.bluetoothStatusTextView);

// Get the BluetoothAdapter system service

bluetoothAdapter = BluetoothAdapter.getDefaultAdapter();

// Check if Bluetooth is supported

if (bluetoothAdapter == null) {

bluetoothStatusTextView.setText("Bluetooth is not supported on this device.");

} else {

// Set initial Bluetooth status

if (bluetoothAdapter.isEnabled()) {

bluetoothStatusTextView.setText("Bluetooth Status: On");

bluetoothToggleButton.setChecked(true);

} else {

bluetoothStatusTextView.setText("Bluetooth Status: Off");

bluetoothToggleButton.setChecked(false);

}

// Set listener for ToggleButton to turn Bluetooth on or off

bluetoothToggleButton.setOnCheckedChangeListener((buttonView, isChecked) -> {

if (isChecked) {

// Turn Bluetooth On

bluetoothAdapter.enable();

bluetoothStatusTextView.setText("Bluetooth Status: On");

} else {

// Turn Bluetooth Off

bluetoothAdapter.disable();

bluetoothStatusTextView.setText("Bluetooth Status: Off");

}

});

}

}

}

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:gravity="center"

android:padding="20dp">

<!-- Result Display -->

<TextView

android:id="@+id/resultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="0"

android:textSize="36sp"

android:layout\_marginBottom="20dp" />

<!-- First number input -->

<EditText

android:id="@+id/num1EditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter First Number"

android:inputType="number" />

<!-- Second number input -->

<EditText

android:id="@+id/num2EditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Second Number"

android:inputType="number"

android:layout\_marginTop="10dp" />

<!-- Buttons for operations -->

<LinearLayout

android:orientation="horizontal"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:gravity="center"

android:layout\_marginTop="20dp">

<Button

android:id="@+id/addButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+" />

<Button

android:id="@+id/subtractButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="-" />

<Button

android:id="@+id/multiplyButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="\*" />

<Button

android:id="@+id/divideButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="/" />

</LinearLayout>

</LinearLayout>

package com.example.simplecalculator;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText num1EditText, num2EditText;

private TextView resultTextView;

private Button addButton, subtractButton, multiplyButton, divideButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize views

num1EditText = findViewById(R.id.num1EditText);

num2EditText = findViewById(R.id.num2EditText);

resultTextView = findViewById(R.id.resultTextView);

addButton = findViewById(R.id.addButton);

subtractButton = findViewById(R.id.subtractButton);

multiplyButton = findViewById(R.id.multiplyButton);

divideButton = findViewById(R.id.divideButton);

// Set up the listeners for the buttons

addButton.setOnClickListener(v -> performOperation("add"));

subtractButton.setOnClickListener(v -> performOperation("subtract"));

multiplyButton.setOnClickListener(v -> performOperation("multiply"));

divideButton.setOnClickListener(v -> performOperation("divide"));

}

// Method to perform the chosen operation

private void performOperation(String operation) {

String num1String = num1EditText.getText().toString();

String num2String = num2EditText.getText().toString();

if (!num1String.isEmpty() && !num2String.isEmpty()) {

double num1 = Double.parseDouble(num1String);

double num2 = Double.parseDouble(num2String);

double result = 0;

switch (operation) {

case "add":

result = num1 + num2;

break;

case "subtract":

result = num1 - num2;

break;

case "multiply":

result = num1 \* num2;

break;

case "divide":

if (num2 != 0) {

result = num1 / num2;

} else {

resultTextView.setText("Cannot divide by 0");

return;

}

break;

}

resultTextView.setText(String.valueOf(result));

} else {

resultTextView.setText("Please enter both numbers");

}

}

}

**Pr-10**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- App title -->

<TextView

android:id="@+id/loginTitle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Social Network Login"

android:textSize="24sp"

android:layout\_marginBottom="32dp"

android:textStyle="bold" />

<!-- Username input field -->

<EditText

android:id="@+id/username"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Username"

android:inputType="text"

android:layout\_marginBottom="16dp"

android:padding="12dp"

android:background="@drawable/edittext\_border"/>

<!-- Password input field -->

<EditText

android:id="@+id/password"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Password"

android:inputType="textPassword"

android:layout\_marginBottom="32dp"

android:padding="12dp"

android:background="@drawable/edittext\_border"/>

<!-- Login button -->

<Button

android:id="@+id/loginButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Login"

android:textColor="#FFFFFF"

android:background="#3b5998" />

<!-- Sign up link (optional) -->

<TextView

android:id="@+id/signupLink"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Don't have an account? Sign Up"

android:textColor="#3b5998"

android:layout\_marginTop="16dp"

android:gravity="center" />

</LinearLayout>

package com.example.socialnetworklogin;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText usernameEditText;

private EditText passwordEditText;

private Button loginButton;

private TextView signupLink;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_login);

// Initialize views

usernameEditText = findViewById(R.id.username);

passwordEditText = findViewById(R.id.password);

loginButton = findViewById(R.id.loginButton);

signupLink = findViewById(R.id.signupLink);

// Set up login button click listener

loginButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

handleLogin();

}

});

// Optional: Set up signup link click listener (you can open a signup page)

signupLink.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Logic to navigate to signup activity (if implemented)

// For now, show a simple Toast

Toast.makeText(MainActivity.this, "Navigate to Signup page", Toast.LENGTH\_SHORT).show();

}

});

}

// Handle login logic

private void handleLogin() {

String username = usernameEditText.getText().toString().trim();

String password = passwordEditText.getText().toString().trim();

// Validate username and password (for example, check if fields are not empty)

if (username.isEmpty() || password.isEmpty()) {

Toast.makeText(this, "Please enter both username and password", Toast.LENGTH\_SHORT).show();

} else {

// Normally here you would validate credentials with a backend server

// For demonstration purposes, let's assume:

if (username.equals("testuser") && password.equals("password123")) {

Toast.makeText(this, "Login Successful", Toast.LENGTH\_SHORT).show();

// You can proceed to the next screen, e.g., open the main social network activity

} else {

Toast.makeText(this, "Invalid username or password", Toast.LENGTH\_SHORT).show();

}

}

}

}

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- Title for the login form -->

<TextView

android:id="@+id/loginTitle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Student Registration System"

android:textSize="24sp"

android:textStyle="bold"

android:layout\_marginBottom="32dp"/>

<!-- Student ID input field -->

<EditText

android:id="@+id/studentID"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Student ID"

android:inputType="text"

android:layout\_marginBottom="16dp"

android:padding="12dp"

android:background="@drawable/edittext\_border"/>

<!-- Password input field -->

<EditText

android:id="@+id/password"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Password"

android:inputType="textPassword"

android:layout\_marginBottom="32dp"

android:padding="12dp"

android:background="@drawable/edittext\_border"/>

<!-- Login button -->

<Button

android:id="@+id/loginButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Login"

android:textColor="#FFFFFF"

android:background="#6200EE" />

<!-- Sign up link (optional) -->

<TextView

android:id="@+id/signupLink"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Don't have an account? Sign Up"

android:textColor="#6200EE"

android:layout\_marginTop="16dp"

android:gravity="center" />

</LinearLayout>

package com.example.studentregistrationsystem;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText studentIDEditText;

private EditText passwordEditText;

private Button loginButton;

private TextView signupLink;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_login);

// Initialize views

studentIDEditText = findViewById(R.id.studentID);

passwordEditText = findViewById(R.id.password);

loginButton = findViewById(R.id.loginButton);

signupLink = findViewById(R.id.signupLink);

// Set up login button click listener

loginButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

handleLogin();

}

});

// Set up signup link click listener (for the sake of demo)

signupLink.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Logic to navigate to the signup page (you can implement this functionality)

Toast.makeText(MainActivity.this, "Navigate to Sign Up page", Toast.LENGTH\_SHORT).show();

}

});

}

// Handle login logic

private void handleLogin() {

String studentID = studentIDEditText.getText().toString().trim();

String password = passwordEditText.getText().toString().trim();

// Validate student ID and password

if (studentID.isEmpty() || password.isEmpty()) {

Toast.makeText(this, "Please enter both Student ID and Password", Toast.LENGTH\_SHORT).show();

} else {

// Here we check if the student ID and password match the hardcoded values

if (studentID.equals("12345") && password.equals("password123")) {

Toast.makeText(this, "Login Successful", Toast.LENGTH\_SHORT).show();

// You can navigate to the registration page or main dashboard here

// For example: startActivity(new Intent(MainActivity.this, DashboardActivity.class));

} else {

Toast.makeText(this, "Invalid Student ID or Password", Toast.LENGTH\_SHORT).show();

}

}

}

}

**PR-11**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center">

<!-- Checkbox 1 -->

<CheckBox

android:id="@+id/checkbox1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 1" />

<!-- Checkbox 2 -->

<CheckBox

android:id="@+id/checkbox2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 2" />

<!-- Checkbox 3 -->

<CheckBox

android:id="@+id/checkbox3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 3" />

<!-- Checkbox 4 -->

<CheckBox

android:id="@+id/checkbox4"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 4" />

<!-- Checkbox 5 -->

<CheckBox

android:id="@+id/checkbox5"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Option 5" />

<!-- Button to show selected checkboxes -->

<Button

android:id="@+id/showSelectedButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Show Selected Options"

android:layout\_marginTop="20dp"/>

</LinearLayout>

package com.example.checkboxdemo;

import android.os.Bundle;

import android.view.View;

import android.widget.CheckBox;

import android.widget.Button;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private CheckBox checkbox1, checkbox2, checkbox3, checkbox4, checkbox5;

private Button showSelectedButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize checkboxes and button

checkbox1 = findViewById(R.id.checkbox1);

checkbox2 = findViewById(R.id.checkbox2);

checkbox3 = findViewById(R.id.checkbox3);

checkbox4 = findViewById(R.id.checkbox4);

checkbox5 = findViewById(R.id.checkbox5);

showSelectedButton = findViewById(R.id.showSelectedButton);

// Set up the button click listener

showSelectedButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

showSelectedOptions();

}

});

}

// Function to show selected options in a Toast

private void showSelectedOptions() {

StringBuilder selectedOptions = new StringBuilder("Selected Options: ");

// Check which checkboxes are selected and append to the StringBuilder

if (checkbox1.isChecked()) {

selectedOptions.append("Option 1, ");

}

if (checkbox2.isChecked()) {

selectedOptions.append("Option 2, ");

}

if (checkbox3.isChecked()) {

selectedOptions.append("Option 3, ");

}

if (checkbox4.isChecked()) {

selectedOptions.append("Option 4, ");

}

if (checkbox5.isChecked()) {

selectedOptions.append("Option 5, ");

}

// Remove trailing comma if any

if (selectedOptions.toString().endsWith(", ")) {

selectedOptions.setLength(selectedOptions.length() - 2);

}

// Show the selected options in a Toast message

if (selectedOptions.length() > 0) {

Toast.makeText(MainActivity.this, selectedOptions.toString(), Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this, "No option selected", Toast.LENGTH\_SHORT).show();

}

}

}