**MainActivity.java**

package com.example.currencyapp;

import android.content.Intent;

import android.os.AsyncTask;

import android.os.Bundle;

import android.view.View;

import android.widget.\*;

import androidx.appcompat.app.AppCompatActivity;

import org.json.JSONObject;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.net.HttpURLConnection;

import java.net.URL;

import java.util.ArrayList;

import java.util.Iterator;

public class MainActivity extends AppCompatActivity {

private Spinner fromCurrency, toCurrency;

private EditText amountInput;

private TextView resultText;

private JSONObject exchangeRates;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

fromCurrency = findViewById(R.id.from\_currency);

toCurrency = findViewById(R.id.to\_currency);

amountInput = findViewById(R.id.amount\_input);

new FetchExchangeRates().execute("https://open.er-api.com/v6/latest/USD");

}

private class FetchExchangeRates extends AsyncTask<String, Void, String> {

@Override

protected String doInBackground(String... urls) {

try {

HttpURLConnection connection = (HttpURLConnection) new URL(urls[0]).openConnection();

connection.setRequestMethod("GET");

BufferedReader reader = new BufferedReader(new InputStreamReader(connection.getInputStream()));

StringBuilder response = new StringBuilder();

String line;

while ((line = reader.readLine()) != null) response.append(line);

reader.close();

return response.toString();

} catch (Exception e) {

return null;

}

}

@Override

protected void onPostExecute(String result) {

if (result == null) return;

try {

exchangeRates = new JSONObject(result).getJSONObject("rates");

ArrayList<String> currencyList = new ArrayList<>();

Iterator<String> keys = exchangeRates.keys();

while (keys.hasNext()) currencyList.add(keys.next());

ArrayAdapter<String> adapter = new ArrayAdapter<>(MainActivity.this, android.R.layout.simple\_spinner\_item, currencyList);

fromCurrency.setAdapter(adapter);

toCurrency.setAdapter(adapter);

} catch (Exception ignored) {}

}

}

public void convertCurrency(View view) {

String amountText = amountInput.getText().toString().trim();

if (amountText.isEmpty()) {

Toast.makeText(MainActivity.this, "Enter an amount", Toast.LENGTH\_SHORT).show();

return;

}

try {

double fromRate = exchangeRates.getDouble(fromCurrency.getSelectedItem().toString());

double toRate = exchangeRates.getDouble(toCurrency.getSelectedItem().toString());

double amount = Double.parseDouble(amountText);

double convertedAmount = (amount / fromRate) \* toRate;

String formattedAmount = String.format("%.2f", convertedAmount);

Intent intent = new Intent(MainActivity.this, ResultActivity.class);

intent.putExtra("converted\_amount", formattedAmount);

startActivity(intent);

} catch (Exception e) {

Toast.makeText(MainActivity.this, "Conversion Error", Toast.LENGTH\_SHORT).show();

}

}

}

**Activity\_main.xml:**

<?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">

<Spinner

android:id="@+id/from\_currency"

android:layout\_width="match\_parent"

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

<Spinner

android:id="@+id/to\_currency"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

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

<EditText

android:id="@+id/amount\_input"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Amount"

android:inputType="numberDecimal"

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

<Button

android:id="@+id/convert\_button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Convert"

android:onClick="convertCurrency"

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

</LinearLayout>

**ResultActivity.java:**

package com.example.currencyapp;

import android.graphics.drawable.GradientDrawable;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class ResultActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_result);

TextView resultText = findViewById(R.id.result\_text);

String convertedAmount = getIntent().getStringExtra("converted\_amount");

resultText.setText(convertedAmount);

// Apply dynamic styling programmatically (if needed)

GradientDrawable background = new GradientDrawable();

background.setCornerRadius(25f);

background.setColor(getResources().getColor(android.R.color.darker\_gray));

resultText.setBackground(background);

}

}

**Activity\_result.xml:**

<?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="24dp"

android:background="@android:color/white">

<TextView

android:id="@+id/text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textColor="@android:color/black"

android:textSize="36sp"

android:textStyle="bold"

android:gravity="center"

android:padding="16dp"

android:text="Converted Amount"

android:paddingHorizontal="32dp"

android:paddingVertical="16dp"/>

<TextView

android:id="@+id/result\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textColor="@android:color/black"

android:textSize="34sp"

android:textStyle="bold"

android:gravity="center"

android:padding="16dp"

android:paddingHorizontal="32dp"

android:paddingVertical="16dp"/>

</LinearLayout>

**Android\_Manifest.xml:**

<uses-permission android:name="android.permission.INTERNET" />