

## 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) {
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        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"

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        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);
    }
}

```

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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" />
```