

Project 4-3:

Application title: Currency Conversion App

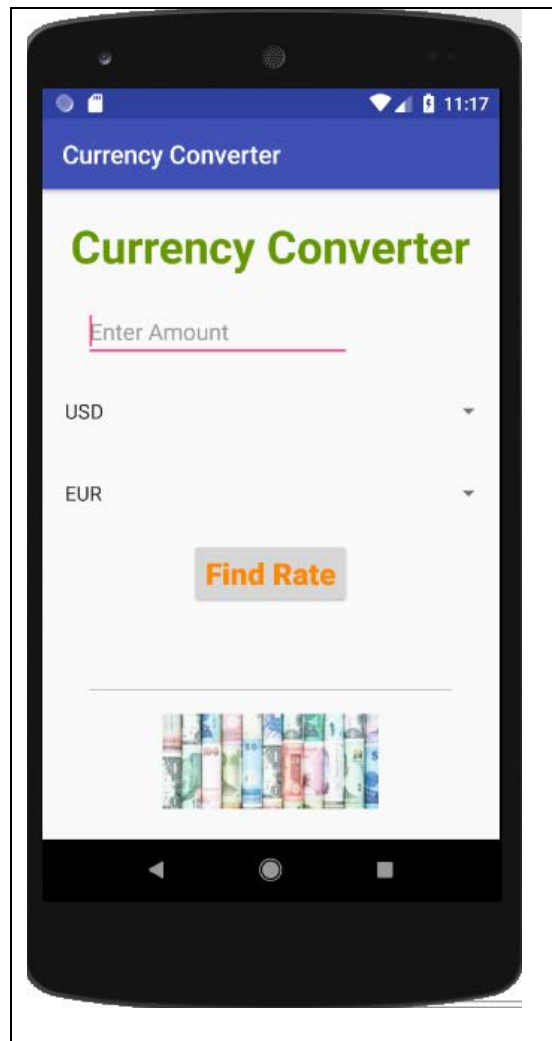
Purpose: The Currency Conversion app converts U.S. dollars into euros, Mexican pesos, or Canadian dollars.

Algorithms:

1. The opening screen requests the amount of U.S. dollars to be converted.
2. The user selects euros, Mexican pesos, or Canadian dollars.
3. The conversion of U.S. dollars to the selected currency is displayed.
4. Use <http://xe.com> to locate current conversion rates.

Conditions:

- The program only converts values below \$100,000
- Use a custom launcher icon.



Strings.xml

```
<resources>
  <string name="app_name">Currency Converter</string>
  <string name="txtTitle">Currency Converter</string>
  <string-array name="txtGroup">
    <item>USD</item>
    <item>EUR</item>
    <item>GBP</item>
    <item>CAD</item>
  </string-array>
  <string-array name="txtGroup2">
    <item>EUR</item>
    <item>USD</item>
    <item>GBP</item>
    <item>CAD</item>
  </string-array>
  <string name="btnRate">Find Rate</string>
  <string name="hint">Enter Amount</string>
  <string name="description">Currency Image</string>
  <string name="todo">TODO</string>
</resources>
```

Steps to a successful App.

1. Don't forget to create your Keys and Values in the Strings.xml file
2. Don't forget to link the Keys and Values to their actual Components in the Properties
3. All the design happens in the activity_main.xml
4. All the code for the Events (i.e. Buttons) is done on the MainActivity.java file
5. All pictures and media go inside the Drawable folder
6. To Import classes use Alt-Enter
7. Save and test your work frequently
8. Sync your work frequently

```

public class MainActivity extends AppCompatActivity{
    double amountEntered;
    double USrate = 1.24;
    double EURrate = 0.81;
    double GBPrate = 0.72;
    double CADrate = 1.29;
    double convertedAmount;
    String groupChoice;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        final EditText amount = (EditText) findViewById(R.id.txtAmount);
        final Spinner group = (Spinner) findViewById(R.id.txtGroup);
        final Spinner group2 = (Spinner) findViewById(R.id.txtGroup2);
        final TextView result = (TextView) findViewById(R.id.txtResult);
        Button convert = (Button) findViewById(R.id.btnRate);

        convert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                amountEntered = Double.parseDouble(amount.getText().toString());
                DecimalFormat tenth = new DecimalFormat("#.##");
                if (group.getSelectedItem().toString().equals("USD") &&
                    (group2.getSelectedItem().toString().equals("EUR")))
                {
                    convertedAmount = amountEntered * EURrate;
                    result.setText("$" + convertedAmount);
                }

                if (group.getSelectedItem().toString().equals("USD") &&
                    (group2.getSelectedItem().toString().equals("CAD")))
                {
                    convertedAmount = amountEntered * CADrate;
                    result.setText("$" + convertedAmount);
                }
            }
        });
    }
}

```