

CSE- 4002 LAB-2 Assignment

Academic year: 2020-2021

Semester: WIN

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Date: 10 /21/2021

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1.) Design the following APP for the IOT store. The cost of Arduino Uno is 500RS, the cost of WIFI module is 250RS and the Bluetooth module is 200RS. Based on the quantity, compute the Amount payable when the submit button is clicked, When clear is clicked clear all the Editboxes.

JAVA CODE :

```
package com.taran.madlab2.1;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText t1, t2, t3;
    TextView t4;
    Button b1, b2;
    int n1 = 0, n2 = 0, n3 = 0;
    int total = 0;
    String res;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "TARAN_19BCE7346", Toast.LENGTH_LONG).show();
        Toast.makeText(this, "Welcome To IOT Store", Toast.LENGTH_LONG).show();
        t1 = findViewById(R.id.T1);
        t2 = findViewById(R.id.T2);
        t3 = findViewById(R.id.T3);
        t4 = findViewById(R.id.T4);
        b1 = findViewById(R.id.B1);
        b2 = findViewById(R.id.B2);
    }
}
```

```

    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            n1 = Integer.parseInt(t1.getText().toString());
            n2 = Integer.parseInt(t2.getText().toString());
            n3 = Integer.parseInt(t3.getText().toString());
            total = (n1 * 500) + (n2 * 250) + (n3 * 200);
            res = Double.toString(total);
            t4.setText(res);
        }
    });
    b2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            t1.setText("");
            t2.setText("");
            t3.setText("");
            t4.setText("");
        }
    });
}

```

XML CODE:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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"
    android:background="#94E3ED"
    android:backgroundTint="#090909"
    tools:context=".MainActivity"
    tools:layout_editor_absoluteY="81dp">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="36dp"
        android:background="#090909"
        android:text="IOT Store"
        android:textColor="@android:color/holo_red_light"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"

```

```
app:layout_constraintHorizontal_bias="0.467"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<TextView
```

```
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="?attr/actionMenuTextColor"
    android:text="Items"
    android:textColor="@android:color/holo_green_light"
    android:textSize="18sp"
    app:layout_constraintBottom_toTopOf="@+id/textView4"
    app:layout_constraintEnd_toStartOf="@+id/textView3"
    app:layout_constraintHorizontal_bias="0.409"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.611" />
```

```
<TextView
```

```
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#9FFFFFFF"
    android:text="Quantity"
    android:textColor="@android:color/holo_green_light"
    android:textSize="18sp"
    app:layout_constraintBottom_toTopOf="@+id/T1"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.753"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.741" />
```

```
<TextView
```

```
    android:id="@+id/textView4"
    android:layout_width="95dp"
    android:layout_height="30dp"
    android:layout_marginBottom="164dp"
    android:text="Aurdino Uno"
    android:textColor="@android:color/holo_orange_dark"
    app:layout_constraintBottom_toTopOf="@+id/textView6"
    app:layout_constraintEnd_toStartOf="@+id/T1"
    app:layout_constraintHorizontal_bias="0.581"
    app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView
```

```
    android:id="@+id/textView5"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="44dp"
android:text="Wifi Module"
android:textColor="@android:color/holo_orange_dark"
app:layout_constraintBottom_toBottomOf="@+id/textView6"
app:layout_constraintEnd_toStartOf="@+id/T2"
app:layout_constraintHorizontal_bias="0.492"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView4"
app:layout_constraintVertical_bias="0.19" />
```

<EditText

```
android:id="@+id/T1"
android:layout_width="141dp"
android:layout_height="55dp"
android:layout_marginBottom="40dp"
android:backgroundTint="#FBFBFB"
android:ems="10"
android:inputType="number"
android:minHeight="48dp"
android:textColor="@android:color/holo_orange_light"
app:layout_constraintBottom_toTopOf="@+id/T2"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.785"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.976"
tools:ignore="SpeakableTextPresentCheck" />
```

<EditText

```
android:id="@+id/T2"
android:layout_width="140dp"
android:layout_height="50dp"
android:layout_marginBottom="32dp"
android:backgroundTint="#F6F2F2"
android:ems="10"
android:inputType="number"
android:minHeight="48dp"
android:textColor="#F5D717"
app:layout_constraintBottom_toTopOf="@+id/T3"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.778"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.948"
tools:ignore="SpeakableTextPresentCheck" />
```

```
<EditText
    android:id="@+id/T3"
    android:layout_width="141dp"
    android:layout_height="49dp"
    android:layout_marginBottom="236dp"
    android:backgroundTint="#F8F5F5"
    android:ems="10"
    android:inputType="number"
    android:minHeight="48dp"
    android:textColor="#FBC02D"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.781"
    app:layout_constraintStart_toStartOf="parent"
    tools:ignore="SpeakableTextPresentCheck" />

<TextView
    android:id="@+id/T4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textColor="@color/black"
    android:textSize="18sp"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="229dp"
    tools:layout_editor_absoluteY="498dp" />

<Button
    android:id="@+id/B1"
    android:layout_width="117dp"
    android:layout_height="51dp"
    android:layout_marginBottom="40dp"
    android:background="#9C27B0"
    android:text="submit"
    android:textColor="#FFD740"
    app:backgroundTint="@color/purple_500"
    app:layout_constraintBottom_toTopOf="@+id/textView7"
    app:layout_constraintEnd_toStartOf="@+id/B2"
    app:layout_constraintHorizontal_bias="0.419"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView6"
    app:layout_constraintVertical_bias="1.0" />

<TextView
    android:id="@+id/textView6"
    android:layout_width="78dp"
    android:layout_height="26dp"
    android:layout_marginEnd="65dp"
    android:layout_marginBottom="244dp"
```

```
android:text="Bluetooth"
android:textColor="@android:color/holo_orange_dark"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toStartOf="@+id/T3"
app:layout_constraintHorizontal_bias="1.0"
app:layout_constraintStart_toStartOf="parent" />
```

<TextView

```
android:id="@+id/textView7"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:background="#CDDC39"
android:text="Amount Payable : "
android:textColor="@color/black"
android:textSize="18sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.14"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView6"
app:layout_constraintVertical_bias="0.653" />
```

<Button

```
android:id="@+id/B2"
android:layout_width="101dp"
android:layout_height="54dp"
android:layout_marginBottom="144dp"
android:background="#9C27B0"
android:text="Clear "
android:textColor="#FFD740"
app:backgroundTint="@color/purple_500"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.783"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/T3"
app:layout_constraintVertical_bias="0.945" />
```

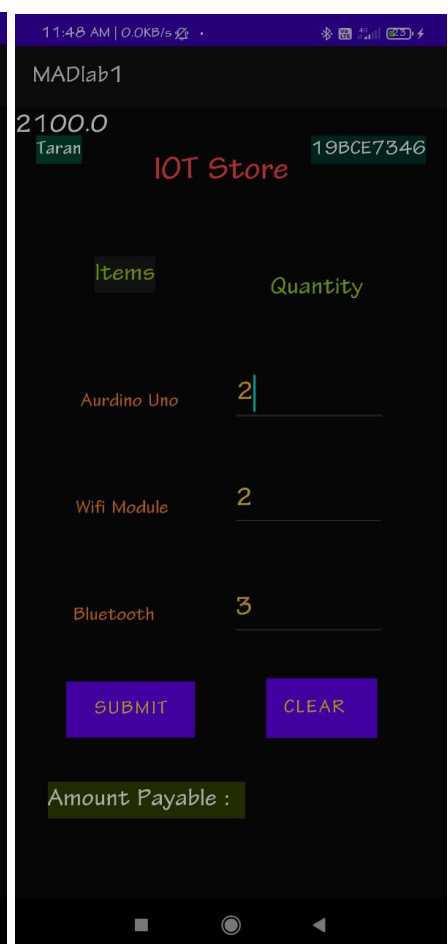
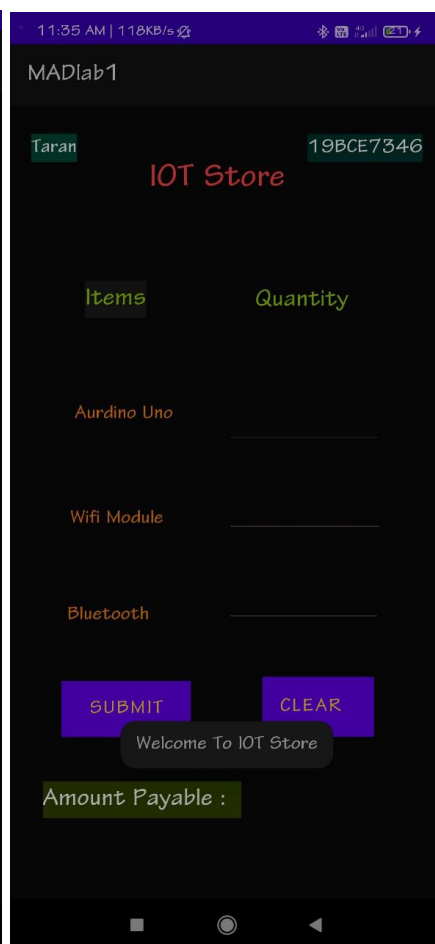
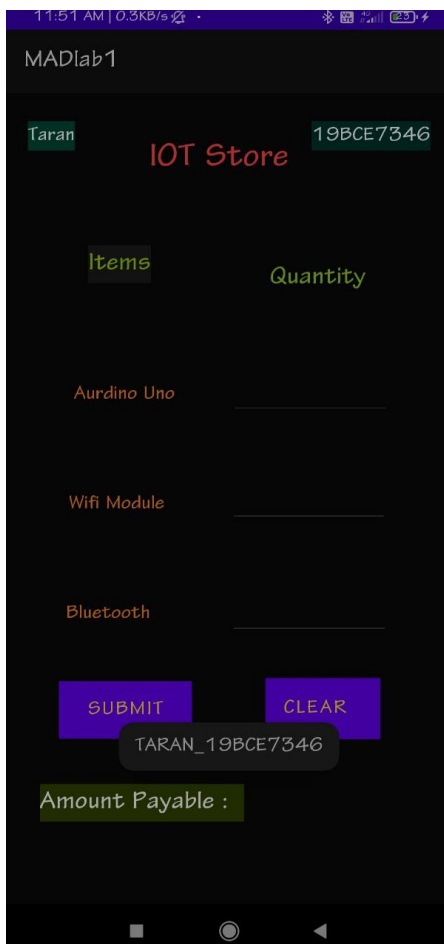
<TextView

```
android:id="@+id/textView8"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="25dp"
android:background="#E67E22"
android:text="19BCE7346"
android:textColor="#131313"
app:layout_constraintBottom_toTopOf="@+id/textView"
app:layout_constraintEnd_toEndOf="parent"
```

```

    app:layout_constraintHorizontal_bias="0.934"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.0" />
<TextView
    android:id="@+id/textView9"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="25dp"
    android:background="#54EFD0"
    android:text="Taran"
    android:textColor="#0C0C0C"
    app:layout_constraintBottom_toTopOf="@+id/textView2"
    app:layout_constraintEnd_toStartOf="@+id/textView8"
    app:layout_constraintHorizontal_bias="0.089"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>

```



2.) Design a Currency Converter App. 1 RS=

JAVA CODE :

```
package com.taran.madlab2.2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle; import
    android.view.View; import
    android.widget.Button; import
    android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    EditText t1;
    TextView t2;
    RadioGroup rg;
    RadioButton r1;
    Button b1;
    String op;
    double res;
    String result;
    int n = 0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        rg = findViewById(R.id.RG1);
        t1 = findViewById(R.id.T1);
        t2 = findViewById(R.id.T2);
        b1 = findViewById(R.id.B1);
        rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener()
        {
            @Override
            public void onCheckedChanged(RadioGroup group, int checkedId) {
                int i = rg.getCheckedRadioButtonId();
                r1 = findViewById(i);
                op = r1.getText().toString();
            }
        });
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
```



```

    public void onClick(View v) {
        if (op.equals("USD")) {
            n = Integer.parseInt(t1.getText().toString());
            res = (double)n * 0.014;
        }
        else if (op.equals("EURO")) {
            n = Integer.parseInt(t1.getText().toString());
            res = (double)n * 0.011;
        }
        else if (op.equals("YEN")) {
            n = Integer.parseInt(t1.getText().toString());
            res = (double)n * 1.45;
        }
        result = Double.toString(res);
        t2.setText(result);
    }
}
});
}
}

```

XML CODE:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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=".MainActivity"
    tools:ignore="MissingClass">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="73dp"
        android:maxLines="2"
        android:text="CURRENCY\nCONVERTER"
        android:textColor="#4CAF50"
        android:textSize="36sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <RadioGroup
        android:id="@+id/RG1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

```
        android:layout_marginStart="31dp"
        android:layout_marginTop="68dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/T1">
        <RadioButton
            android:id="@+id/RB3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="YEN"
            android:textColor="@color/black"
            android:textSize="24sp" />
        <RadioButton
            android:id="@+id/RB1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="USD"
            android:textColor="@color/black"
            android:textSize="24sp" />
        <RadioButton
            android:id="@+id/RB2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="EURO"
            android:textColor="@color/black"
            android:textSize="24sp" />
    </RadioGroup>
    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="41dp"
        android:text="CONVERT" android:textSize="24sp"
        app:backgroundTint="@color/teal_700"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/RG1" />
    <TextView
        android:id="@+id/T2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginBottom="81dp"
        android:textColor="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="@+id/B1" />
    <EditText
        android:id="@+id/T1"
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:layout_marginTop="47dp"
        android:layout_marginEnd="3dp"
        android:ems="10"
        android:hint="in RS" android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="@+id/textView"
        app:layout_constraintTop_toBottomOf="@+id/textView" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT :