PRESIDENCY UNIVERSITY

Mobile application development(CSE 3075)

20211CSE0223

SNEHA.R

5CSE4

CA1

Q2.Car Insurance

1.Design (activity_main.xml)

```xml
<?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">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="15dp"
        android:layout_marginBottom="337dp"
        android:fontFamily="sans-serif-condensed"
        android:text="Policybazaar Car Insurance"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/imageView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.587"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.022" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:src="@drawable/img"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/button2" />

    <EditText
```

```xml
        android:id="@+id/editTextText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="28dp"
        android:ems="10"
        android:hint="Car Owner Name: "
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="@+id/textView"
        app:layout_constraintStart_toStartOf="@+id/textView"
        app:layout_constraintTop_toBottomOf="@+id/textView" />

    <EditText
        android:id="@+id/editTextText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        android:ems="10"
        android:hint="Vehicle number: "
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="@+id/editTextText"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="@+id/editTextText"
        app:layout_constraintTop_toBottomOf="@+id/editTextText" />

    <EditText
        android:id="@+id/editTextText3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="13dp"
        android:ems="10"
        android:hint="Make and model:"
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="@+id/editTextText2"
        app:layout_constraintStart_toStartOf="@+id/editTextText2"
        app:layout_constraintTop_toBottomOf="@+id/editTextText2" />

    <EditText
        android:id="@+id/editTextText4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="13dp"
        android:ems="10"
        android:hint="Year of model: "
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="@+id/editTextText3"
        app:layout_constraintStart_toStartOf="@+id/editTextText3"
        app:layout_constraintTop_toBottomOf="@+id/editTextText3" />

    <EditText
        android:id="@+id/editTextText5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="14dp"
        android:ems="10"
        android:hint="Car value: "
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="@+id/editTextText4"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="@+id/editTextText4"
        app:layout_constraintTop_toBottomOf="@+id/editTextText4" />
```

```xml
    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="378dp"
        android:layout_marginBottom="32dp"
        android:backgroundTint="@color/material_dynamic_primary20"
        android:text="SUBMIT"
        app:layout_constraintBottom_toTopOf="@+id/imageView"
        app:layout_constraintEnd_toEndOf="@+id/editTextText5"
        app:layout_constraintStart_toStartOf="@+id/editTextText5"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

2. JAVA File (MainActivity.java)

```java
package com.example.ca_2q;

import androidx.appcompat.app.AppCompatActivity;
//import java.util.Random;
import java.lang.Math;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText editTextText, editTextText2, editTextText3, editTextText4,
editTextText5;
    Button button2;
    String name, num, make, year,details;
    Double carValue;
    double min=3000,max=4000;
    double  min1=4000,max1=5000;
    double min2=5000,max2=7000;
    double min3=7000,max3=10000;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editTextText = findViewById(R.id.editTextText);
        editTextText2 = findViewById(R.id.editTextText2);
        editTextText3 = findViewById(R.id.editTextText3);
        editTextText4 = findViewById(R.id.editTextText4);
        editTextText5 = findViewById(R.id.editTextText5);
        button2 = findViewById(R.id.button2);
        button2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                name = editTextText.getText().toString();
                num = editTextText2.getText().toString();
                make = editTextText3.getText().toString();
                year = editTextText4.getText().toString();
                carValue =
Double.parseDouble(editTextText5.getText().toString());
                details=calculateInsuranceAmount().toString();
                Toast.makeText(MainActivity.this,name+"-"+num+"-"+make+"-
"+year+"-"+carValue.toString()+"-"+details,Toast.LENGTH_LONG).show();
                Intent intent=new Intent(MainActivity.this,
MainActivity2.class);
                intent.putExtra("Name",name);
                intent.putExtra("Number",num);
                intent.putExtra("Make",make);
                intent.putExtra("Year",year);
                intent.putExtra("Value",carValue);
                intent.putExtra("Amount",details);
                startActivity(intent);


            }
```

```
        });
    }

    public Double calculateInsuranceAmount() {

        double amt;
        if((carValue>=100000 && carValue<200000)) {
        amt=Math.random()*(max-min+1)+min;
        }
        else if((carValue>=200000 && carValue<400000)) {
            amt=Math.random()*(max1-min1+1)+min1;
        }
        else if((carValue>=400000 && carValue<600000)) {
            amt=Math.random()*(max2-min2+1)+min2;
        }
        else if ((carValue>=600000 && carValue<1000000)) {
            amt=Math.random()*(max3-min3+1)+min3;
        }
     else if(carValue>1000000) {
         amt=(carValue*0.1);
        }
     else {
        amt=0.0;
        }
     return  amt;
    }
}
```

3.Design (activity_main2.xml)

```xml
<?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=".MainActivity2">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="371dp"
        android:layout_height="68dp"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"
        android:layout_marginBottom="28dp"
        android:fontFamily="serif-monospace"
        android:text="Insurance details"
        android:textSize="34sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/textView3"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView2" />

    <TextView
        android:id="@+id/textView3"
```

```
        android:layout_width="317dp"
        android:layout_height="203dp"
        android:layout_marginStart="41dp"
        android:layout_marginBottom="212dp"
        android:textColor="#00587A"
        android:textSize="20sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginBottom="18dp"
        android:src="@drawable/img_2"
        app:layout_constraintBottom_toTopOf="@+id/textView2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```


Insurance details

4.JAVA File (MainActivity2.java)

```java
package com.example.ca_2q;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
TextView textView3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        textView3=findViewById(R.id.textView3);
        Intent intent=getIntent();
    String name=intent.getStringExtra("Name");
    String num=intent.getStringExtra("Number");
    String make=intent.getStringExtra("Make");
    String year=intent.getStringExtra("Year");
    Double carValue=intent.getDoubleExtra("Value",0);
    String details=intent.getStringExtra("Amount");
    textView3.setText("Car owner name: "+name+"\nVehicle number:
```

```
"+num+"\nMake and model: "+make+"\nYear of model: "+year+"\n Car Value:
"+carValue+"\nInsurance amount: "+details);
    }
}
```

AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Ca_2q"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity2"
            android:exported="false" />
        <activity
            android:name=".MainActivity"
            android:exported="true"
            android:icon="@mipmap/img">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER"
/>
            </intent-filter>
        </activity>
    </application>

</manifest>
```
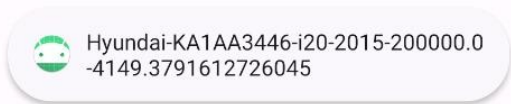
5.Output in the emulator

Policybazaar Car Insurance

Hyundai

KA1AA3446

i20

2015

200000

SUBMIT

Insurance details

Car owner name: Hyundai
Vehicle number: KA1AA3446
Make and model: i20
Year of model: 2015
Car Value: 200000.0
Insurance amount:
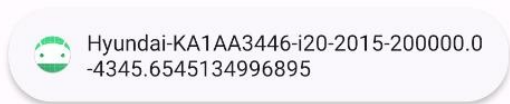**4149.3791612726045**

Hyundai-KA1AA3446-i20-2015-200000.0
-4149.3791612726045

Insurance details

Car owner name: Hyundai
Vehicle number: KA1AA3446
Make and model: i20
Year of model: 2015
Car Value: 200000.0
Insurance amount:
4345.6545134996895

Hyundai-KA1AA3446-i20-2015-200000.0
-4345.6545134996895