

Android Programming

ASSIGNMENT 1

STUDENT NAME: TELORE GANESH BHASKAR | GT
ROLL NO: 235353
CLASS: TYBBACA
GUIDE: PROF. LANDE R.D
ASSIGNMENT BASED ON: INTRODUCTION

ASSIGNMENT 1

SET-A

Q.1 Create a Simple Application Which Shows Life Cycle of Activity.

Ans:

XML File:

```
<?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="#de3163"
    tools:context=".MainActivity">
```

```
<TextView
    android:id="@+id/t1"
    android:layout_width="206dp"
    android:layout_height="50dp"
    android:layout_marginStart="118dp"
    android:layout_marginTop="234dp"
    android:layout_marginEnd="93dp"
    android:layout_marginBottom="478dp"
    android:text="Activity Paused"
    android:visibility="invisible"
    android:textColor="@color/white"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

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

Java File:

```
package com.example.q1;
```

```
import androidx.appcompat.app.AppCompatActivity;
import android.app.AlertDialog;
import android.os.Bundle;
import android.os.Handler;
import android.view.View;
import android.widget.*;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    TextView t1;
```

```
    AlertDialog.Builder builder;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        builder = new AlertDialog.Builder(this);
```

```
        builder.setTitle("Alert").setMessage("Activity Created!").show();
```

```
        setContentView(R.layout.activity_main);
```

```
    }
```

```
    @Override
```

```
    protected void onStart() {
```

```
        super.onStart();
```

```
        new Handler().postDelayed(()->{
```

```
            builder.setTitle("Alert").setMessage("Activity Started!").show();
```

```
        },1000);
```

```
    }
```

```
    @Override
```

```
    protected void onResume() {
```

```
        super.onResume();
```

```
        new Handler().postDelayed(()->{
```

```
            builder.setTitle("Alert").setMessage("Activity Resumed!").show();
```

```
        },2000);
```

```
    }
```

```
    @Override
```

```
    protected void onPause() {
```

```
        super.onPause();
```

```
        //This block code will not be executed because process not paused and visible only if we resume this activity
```

```
    }
```

```
    @Override
```

```
protected void onStop() {  
    super.onStop();  
    //This block code will not be executed because activity is stopped or destroyed its an endpoint  
}  
  
@Override  
protected void onDestroy() {  
    super.onDestroy();  
}  
}
```

Output:



ASSIGNMENT 1

SET-A

Q.2 Create a Simple Application Which Send —Hello|| message from one activity to another with help of Button (Use Intent).

Ans:

XML File 1:

```
<?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="#e32636"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/btn"
        android:layout_width="180dp"
        android:layout_height="51dp"
        android:background="@drawable/stylish_edittext"
        android:text="Click Here"
        android:textColor="@color/white"
        android:textAlignment="center"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

Java File 1:

```
package com.example.q2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.content.Intent;
import android.widget.Button;
import android.view.*;

public class MainActivity extends AppCompatActivity {
    String msg="Hello GT!";
    Button btn;
```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    init();
    btn.setOnClickListener(new View.OnClickListener(){
        @Override
        public void onClick(View v){
            Intent i=new Intent(getApplicationContext(),action.class);
            i.putExtra("msg","Hello GT!");
            startActivity(i);
        }
    });
}
public void init(){
    btn=findViewById(R.id.btn);
}
}

```

XML File 2:

```

<?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="#e32636"
    tools:context=".action">

</androidx.constraintlayout.widget.ConstraintLayout>

```

Java file II:

```

package com.example.q2;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

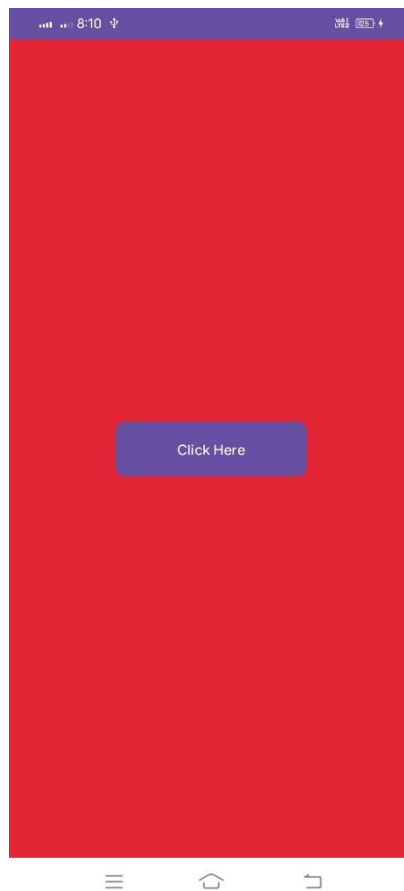
import android.content.DialogInterface;
import android.os.Bundle;

public class action extends AppCompatActivity {
    AlertDialog.Builder builder;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_action);
        builder=new AlertDialog.Builder(this);
    }
}

```

```
builder.setTitle("Notification!").setMessage(getIntent().getStringExtra("msg"))
    .setPositiveButton("Ok", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            finish();
        }
    }).show();
}
```

Output:



ASSIGNMENT 1

SET-A

Q.3 Create a Simple Application, which read a positive number from the user and display its factorial value in another activity.

Ans:

XML File 1:

```
<?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="@color/black"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="200dp"
        android:layout_height="30dp"
        android:layout_marginStart="100dp"
        android:layout_marginTop="329dp"
        android:layout_marginEnd="195dp"
        android:layout_marginBottom="15dp"
        android:text="Enter Number: "
        android:textColor="@color/white"
        android:textSize="18dp"
        app:layout_constraintBottom_toTopOf="@+id/tb1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0" />

    <EditText
        android:id="@+id/tb1"
        android:layout_width="200dp"
        android:layout_height="42dp"
        android:layout_marginStart="100dp"
        android:layout_marginTop="26dp"
        android:layout_marginEnd="111dp"
        android:layout_marginBottom="32dp"
        android:background="@drawable/textbox"
        android:ems="10"
        android:padding="10sp"
```



```
        android:textColor="@color/white"
        app:layout_constraintBottom_toTopOf="@+id/btn"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<Button
    android:id="@+id/btn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="152dp"
    android:layout_marginTop="2dp"
    android:layout_marginEnd="152dp"
    android:layout_marginBottom="216dp"
    android:backgroundTint="#ff0000"
    android:text="Calculate"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tb1" />
```

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

Java File I:

```
package com.example.q3;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlertDialog;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.*;

public class MainActivity extends AppCompatActivity {
    Button btn;
    EditText tb1;
    String val="";
    AlertDialog.Builder builder;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```

setContentView(R.layout.activity_main);
tb1=findViewById(R.id.tb1);
btn=findViewById(R.id.btn);
builder = new AlertDialog.Builder(this);
calculate();
}
public void calculate(){
    btn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent it=new Intent(getApplicationContext(),action.class);
            String num=tb1.getText().toString();
            try {
                int no=Integer.parseInt(num);
                if(no>0) {
                    it.putExtra("val", num);
                    startActivity(it);
                }else{
                    builder.setTitle("Alert").setMessage("Please enter value greater than 0").show();
                }
            }catch (Exception e){
                System.out.println(e);
            }
        }
    });
}
}

```

XML File 2:

```

<?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="@color/black"
tools:context=".action">

<TextView
    android:id="@+id/lbl"
    android:layout_width="283dp"
    android:layout_height="31dp"
    android:layout_marginStart="123dp"
    android:layout_marginTop="355dp"
    android:layout_marginEnd="123dp"
    android:layout_marginBottom="356dp"

```

```
        android:textAlignment="center"
        android:textColor="@color/white"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
```

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

Java file II:

```
package com.example.q3;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.widget.TextView;
```

```
public class action extends AppCompatActivity {
```

```
    TextView lbl;
```

```
    int fact=1;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_action);
```

```
        lbl=findViewById(R.id.lbl);
```

```
        String value=getIntent().getStringExtra("val");
```

```
        int n=Integer.parseInt(value);
```

```
        for(int i=1;i<=n;i++){
```

```
            fact=fact*i;
```

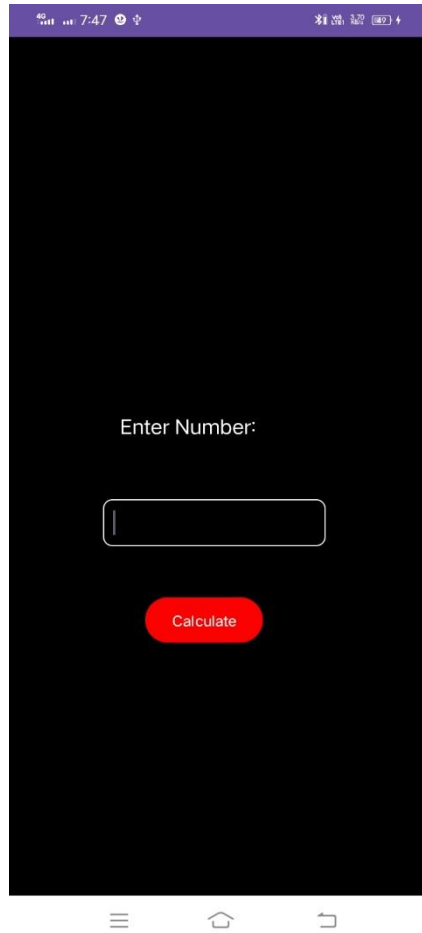
```
        }
```

```
        lbl.setText("Result: Factorial value is "+fact);
```

```
    }
```

```
}
```

Output:



ASSIGNMENT 1

SET-A

Q.4 Create a Simple Application, that performs Arithmetic Operations. (Use constraint layout)

Ans:

XML File 1:

```
<?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/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="51dp"
        android:layout_marginTop="80dp"
        android:layout_marginEnd="45dp"
        android:layout_marginBottom="148dp"
        android:text="Arithmetic Operations"
        android:textSize="30sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/tb1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
```

```
    <EditText
        android:id="@+id/tb1"
        android:layout_width="308dp"
        android:layout_height="55dp"
        android:layout_marginStart="35dp"
        android:layout_marginTop="18dp"
        android:layout_marginEnd="52dp"
        android:layout_marginBottom="49dp"
        android:ems="10"
        android:hint="val1"
        android:inputType="text"
        android:textColor="#000"
        app:layout_constraintBottom_toTopOf="@+id/tb2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
```

```
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView2" />
```

```
<EditText
    android:id="@+id/tb2"
    android:layout_width="308dp"
    android:layout_height="55dp"
    android:layout_marginStart="35dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="52dp"
    android:layout_marginBottom="29dp"
    android:ems="10"
    android:hint="val2"
    android:inputType="text"
    android:backgroundTint="#c5c6d0"
    app:layout_constraintBottom_toTopOf="@+id/lbl"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tb1" />
```

```
<TextView
    android:id="@+id/lbl"
    android:layout_width="308dp"
    android:layout_height="31dp"
    android:layout_marginStart="51dp"
    android:layout_marginTop="28dp"
    android:layout_marginEnd="52dp"
    android:text="Output: "
    android:textSize="20dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tb2" />
```

```
<Button
    android:id="@+id/add"
    android:layout_width="127dp"
    android:layout_height="55dp"
    android:layout_marginStart="51dp"
    android:layout_marginTop="46dp"
    android:layout_marginEnd="61dp"
    android:layout_marginBottom="31dp"
    android:text="+"
    app:layout_constraintBottom_toTopOf="@+id/multi"
    app:layout_constraintEnd_toStartOf="@+id/sub"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/lbl" />
```

```
<Button
    android:id="@+id/sub"
    android:layout_width="127dp"
    android:layout_height="55dp"
    android:layout_marginStart="61dp"
    android:layout_marginTop="46dp"
    android:layout_marginEnd="45dp"
    android:layout_marginBottom="31dp"
    android:text="-"
    app:layout_constraintBottom_toTopOf="@+id/div"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/add"
    app:layout_constraintTop_toBottomOf="@+id/lbl" />
```

```
<Button
    android:id="@+id/multi"
    android:layout_width="127dp"
    android:layout_height="55dp"
    android:layout_marginStart="54dp"
    android:layout_marginTop="31dp"
    android:layout_marginEnd="58dp"
    android:layout_marginBottom="32dp"
    android:text="*"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/div"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/add" />
```

```
<Button
    android:id="@+id/div"
    android:layout_width="127dp"
    android:layout_height="55dp"
    android:layout_marginStart="58dp"
    android:layout_marginTop="31dp"
    android:layout_marginEnd="45dp"
    android:layout_marginBottom="32dp"
    android:text="/"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/multi"
    app:layout_constraintTop_toBottomOf="@+id/sub" />
```

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

Java File I:

```
package com.example.q4;

import androidx.appcompat.app.AlertDialog;
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;
public class MainActivity extends AppCompatActivity {
    Button add, sub, multi, div;
    TextView lbl;
    EditText tb1, tb2;
    AlertDialog.Builder builder;

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

        tb1 = findViewById(R.id.tb1);
        tb2 = findViewById(R.id.tb2);
        add = findViewById(R.id.add);
        sub = findViewById(R.id.sub);
        multi = findViewById(R.id.multi);
        div = findViewById(R.id.div);
        lbl = findViewById(R.id.lbl);
        builder=new AlertDialog.Builder(this);

        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                try {
                    lbl.setText("Addition is :"+ (Integer.parseInt(tb1.getText().toString()) +
Integer.parseInt(tb2.getText().toString())));
                } catch (Exception e) {
                    builder.setTitle("GT Says...").setMessage("Only numbers allowed").show();
                }
            }
        });
    }
}
```



```

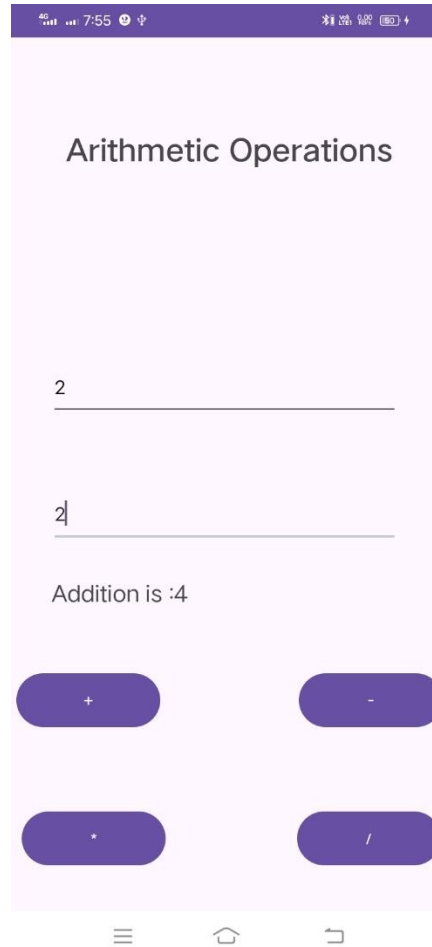
sub.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v2) {
        try {
            lbl.setText("Subtraction is: " + (Integer.parseInt(tb1.getText().toString()) -
Integer.parseInt(tb2.getText().toString())));
        } catch (Exception e) {
            builder.setTitle("GT Says...").setMessage("Only numbers allowed").show();
        }
    }
});

multi.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v3) {
        try {
            lbl.setText("Multiplication is: " + (Integer.parseInt(tb1.getText().toString()) *
Integer.parseInt(tb2.getText().toString())));
        } catch (Exception e) {
            builder.setTitle("GT Says...").setMessage("Only numbers allowed").show();
        }
    }
});

div.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v4) {
        try {
            lbl.setText("Division is: " + (Integer.parseInt(tb1.getText().toString()) /
Integer.parseInt(tb2.getText().toString())));
        } catch (Exception e) {
            builder.setTitle("GT Says...").setMessage("Only numbers allowed").show();
        }
    }
});
}

```

Output:



ASSIGNMENT 1

SET-B

Q.1 Create an Android App, Which reads the Students Details (Name, Surname, Class, Gender, Hobbies, Marks) and Display the all information in another activity in table format on click of Submit button.

Ans:

XML File 1:

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#00ffff"
    tools:context=".MainActivity">

    <TableRow
        android:layout_marginTop="100dp">
        <EditText
            android:id="@+id/tb1"
            android:layout_width="300dp"
            android:layout_height="50dp"
            android:layout_marginLeft="50dp"
            android:hint="Student Name"
            android:paddingLeft="10dp"
            android:background="@color/white"
            android:inputType="text"
            android:textColor="#999"/>
        </TableRow>
        <TableRow
            android:layout_marginTop="30dp">

            <EditText
                android:id="@+id/tb2"
                android:layout_width="200dp"
                android:layout_height="52dp"
                android:layout_marginLeft="50dp"
                android:background="@color/white"
                android:hint="Student Surname"
                android:inputType="text"
                android:textColor="#999"
                android:paddingLeft="10dp"/>
            </TableRow>
            <TableRow
                android:layout_marginTop="30dp">

                <EditText
```

```
        android:id="@+id/tb3"
        android:layout_width="200dp"
        android:layout_height="52dp"
        android:layout_marginLeft="50dp"
        android:background="@color/white"
        android:hint="Student Class"
        android:inputType="text"
        android:textColor="#999"
        android:paddingLeft="10dp"/>
    </TableRow>
    <TableRow
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"
        android:layout_marginTop="30dp">

        <TextView
            android:id="@+id/lbl"
            android:layout_width="180dp"
            android:layout_height="50dp"
            android:paddingTop="7dp"
            android:layout_marginLeft="50dp"
            android:layout_weight="2"
            android:text="Gender"
            android:textColor="@color/white"
            android:textSize="19dp"/>

        <RadioGroup
            android:id="@+id/gender"
            android:layout_width="380dp"
            android:layout_height="50dp"
            android:layout_weight="1"
            android:orientation="horizontal">

            <RadioButton
                android:id="@+id/r1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:text="Male"
                android:textColor="#fff"
                android:textSize="18dp" />

            <RadioButton
                android:id="@+id/r2"
                android:layout_width="100dp"
                android:layout_height="wrap_content"
                android:layout_marginLeft="20dp"
                android:text="Female"
```

```
        android:textColor="#fff"
        android:textSize="18dp" />
    </RadioGroup>
```

```
</TableRow>
```

```
<TableRow
    android:layout_marginTop="30dp"
    android:layout_width="wrap_content"
    android:layout_height="50dp">
```

```
    <EditText
        android:id="@+id/tb5"
        android:layout_width="200dp"
        android:layout_height="52dp"
        android:layout_marginLeft="50dp"
        android:background="@color/white"
        android:inputType="text"
        android:hint="Student Hobbies"
        android:textColor="#999"
        android:paddingLeft="10dp"/>
```

```
</TableRow>
```

```
<TableRow
    android:layout_marginTop="30dp"
    android:layout_width="wrap_content"
    android:layout_height="50dp">
```

```
    <EditText
        android:id="@+id/tb6"
        android:layout_width="200dp"
        android:layout_height="52dp"
        android:layout_marginLeft="50dp"
        android:background="@color/white"
        android:inputType="number"
        android:maxLength="2"
        android:hint="Student Marks"
        android:textColor="#999"
        android:paddingLeft="10dp"/>
```

```
</TableRow>
```

```
<TableRow
    android:layout_marginTop="30dp"
    android:layout_width="wrap_content"
    android:layout_height="50dp">
```

```
    <Button
        android:id="@+id/submit"
```

```
android:layout_width="200dp"
android:layout_height="52dp"
android:layout_marginLeft="50dp"
android:text="Submit"
android:textColor="#fff"
android:textSize="18dp"
android:backgroundTint="@color/black"
android:paddingLeft="10dp"/>
```

```
</TableRow>
</TableLayout>
```

Java File I:

```
package com.example.q1;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.view.View;
import android.widget.*;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
    Button submit;
    EditText tb1,tb2,tb3,tb5,tb6;
    RadioButton r;
    RadioGroup gender;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        submit=findViewById(R.id.submit);
        tb1=findViewById(R.id.tb1);
        tb2=findViewById(R.id.tb2);
        tb3=findViewById(R.id.tb3);
        tb5=findViewById(R.id.tb5);
        tb6=findViewById(R.id.tb6);
        gender=findViewById(R.id.gender);
        submit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int id=gender.getCheckedRadioButtonId();
                r=findViewById(id);
                Intent it=new Intent(getApplicationContext(),target.class);
                it.putExtra("field1",tb1.getText().toString());
                it.putExtra("field2",tb2.getText().toString());
                it.putExtra("field3",tb3.getText().toString());
```

```

        it.putExtra("field5",tb5.getText().toString());
        it.putExtra("field6",tb6.getText().toString());
        it.putExtra("gender",r.getText().toString());
        startActivity(it);
    }
    });
}
}

```

XML File II:

```

<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#00ffff"
    tools:context=".target">
    <TableRow
        android:layout_marginTop="200px"
        android:layout_marginLeft="300dp"
        android:layout_height="wrap_content">

        <TextView
            android:layout_width="0dp"
            android:layout_height="50dp"
            android:text="Student's Data"
            android:layout_marginLeft="30dp"
            android:textAlignment="center"/>

    </TableRow>

    <TableRow
        android:layout_marginTop="30dp"
        android:layout_marginLeft="10dp"
        android:layout_marginRight="10dp">

        <TextView
            android:id="@+id/row1"
            android:layout_width="wrap_content"
            android:layout_height="30dp"
            android:text="Student Name"
            android:paddingLeft="5dp"
            android:paddingRight="5dp"
            android:background="#ff00"
            android:textColor="#fff"/>
        <TextView
            android:id="@+id/row2"
            android:layout_width="wrap_content"

```

```
        android:layout_height="30dp"
        android:text="Student Surname"
        android:layout_marginLeft="20dp"
        android:paddingLeft="5dp"
        android:paddingRight="5dp"
        android:background="#ff00"
        android:textColor="#fff"/>
<TextView
    android:id="@+id/row3"
    android:layout_width="wrap_content"
    android:layout_height="30dp"
    android:text="Student Class"
    android:layout_marginLeft="20dp"
    android:paddingLeft="5dp"
    android:paddingRight="5dp"
    android:background="#ff00"
    android:textColor="#fff"/>
<TextView
    android:id="@+id/row4"
    android:layout_width="wrap_content"
    android:layout_height="30dp"
    android:text="Student Hobbies"
    android:layout_marginLeft="20dp"
    android:paddingLeft="5dp"
    android:paddingRight="5dp"
    android:background="#ff00"
    android:textColor="#fff"/>

<TextView
    android:id="@+id/row5"
    android:layout_width="wrap_content"
    android:layout_height="30dp"
    android:text="Student Marks"
    android:layout_marginLeft="20dp"
    android:paddingLeft="5dp"
    android:paddingRight="5dp"
    android:background="#ff00"
    android:textColor="#fff"/>
<TextView
    android:id="@+id/row6"
    android:layout_width="wrap_content"
    android:layout_height="30dp"
    android:layout_marginLeft="20dp"
    android:text="Student Name"
    android:paddingLeft="5dp"
    android:paddingRight="5dp"
    android:background="#ff00"
    android:textColor="#fff"/>
```



```
</TableRow>
```

```
<TableRow
```

```
    android:layout_marginTop="10dp"  
    android:layout_marginLeft="10dp"  
    android:layout_marginRight="10dp">
```

```
    <TextView
```

```
        android:id="@+id/data1"  
        android:layout_width="wrap_content"  
        android:layout_height="30dp"  
        android:paddingLeft="5dp"  
        android:paddingRight="5dp"  
        android:text="val"  
        android:background="@color/white"  
        android:textColor="#999"/>
```

```
    <TextView
```

```
        android:id="@+id/data2"  
        android:layout_width="wrap_content"  
        android:layout_height="30dp"  
        android:layout_marginLeft="20dp"  
        android:paddingLeft="5dp"  
        android:paddingRight="5dp"  
        android:background="@color/white"  
        android:textColor="#999"/>
```

```
    <TextView
```

```
        android:id="@+id/data3"  
        android:layout_width="wrap_content"  
        android:layout_height="30dp"  
        android:layout_marginLeft="20dp"  
        android:paddingLeft="5dp"  
        android:paddingRight="5dp"  
        android:background="@color/white"  
        android:textColor="#999"/>
```

```
    <TextView
```

```
        android:id="@+id/data4"  
        android:layout_width="wrap_content"  
        android:layout_height="30dp"  
        android:layout_marginLeft="20dp"  
        android:paddingLeft="5dp"  
        android:paddingRight="5dp"  
        android:background="@color/white"  
        android:textColor="#999"/>
```

```
    <TextView
```

```
        android:id="@+id/data5"  
        android:layout_width="wrap_content"  
        android:layout_height="30dp"  
        android:layout_marginLeft="20dp"
```

```

        android:paddingLeft="5dp"
        android:paddingRight="5dp"
        android:background="@color/white"
        android:textColor="#999"/>
<TextView
    android:id="@+id/data6"
    android:layout_width="wrap_content"
    android:layout_height="30dp"
    android:layout_marginLeft="20dp"

    android:paddingLeft="5dp"
    android:paddingRight="5dp"
    android:background="@color/white"
    android:textColor="#999"/>
</TableRow>
</TableLayout>

```

Java File II:

```

package com.example.q1;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;

public class target extends AppCompatActivity {
    AlertDialog.Builder alert;
    TextView data1,data2,data3,data4,data5,data6;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_target);
        data1=findViewById(R.id.data1);
        data2=findViewById(R.id.data2);
        data3=findViewById(R.id.data3);
        data4=findViewById(R.id.data4);
        data5=findViewById(R.id.data5);
        data6=findViewById(R.id.data6);
        //alert=new AlertDialog.Builder(this);
        //alert.setTitle("You selected: ").setMessage(getIntent().getStringExtra("gender")).show();
        data1.setText(getIntent().getStringExtra("field1"));
        data2.setText(getIntent().getStringExtra("field2"));
        data3.setText(getIntent().getStringExtra("field3"));
        data4.setText(getIntent().getStringExtra("gender"));
        data5.setText(getIntent().getStringExtra("field5"));
        data6.setText(getIntent().getStringExtra("field6"));
    }
}

```

```
}  
}
```

Output:

Student's Data

Student Name	Student Surname	Student Class	Student Hobbies	Student Marks	Student Name
1	GT	TYBCA	Male	Coding	98

ASSIGNMENT 1

SET-B

Q.2 Create an Android App with Login Screen. On successful login, gives message go to next Activity (Without Using Database & use Table Layout).

Ans:

XML File 1:

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#81d8d0"
    tools:context=".MainActivity">

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="240dp">

        <EditText
            android:id="@+id/tb1"
            android:layout_width="280dp"
            android:layout_height="45dp"
            android:layout_marginStart="50dp"
            android:layout_marginTop="10dp"
            android:layout_marginEnd="66dp"
            android:layout_marginBottom="32dp"
            android:background="@color/white"
            android:backgroundTint="@color/white"
            android:ems="10"
            android:hint="Username"
            android:padding="10dp" />
    </TableRow>

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <EditText
            android:id="@+id/tb2"
            android:layout_width="280dp"
            android:layout_height="45dp"
            android:layout_marginStart="50dp"
            android:layout_marginEnd="65dp"
            android:layout_marginBottom="41dp"
```

```

        android:background="@color/white"
        android:backgroundTint="@color/white"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword"
        android:padding="10dp" />
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <Button
        android:id="@+id/login"
        android:layout_width="280dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginEnd="66dp"
        android:backgroundTint="#fff"
        android:clickable="true"
        android:text="Login"
        android:textColor="#81d8d0"
        android:textSize="20sp" />
</TableRow>

<TableRow
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="30dp"
    android:layout_marginRight="70dp">

    <TextView
        android:id="@+id/txt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Not a Member? Sign-Up Now"
        android:textAlignment="center"
        android:textColor="#fff"
        android:textSize="16sp" />
</TableRow>

</TableLayout>

```

Java File I:

```

package com.example.q2;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

```

```

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

public class MainActivity extends AppCompatActivity {
    EditText tb1,tb2;
    Button login;
    TextView lbl;
    AlertDialog.Builder alert;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tb1=findViewById(R.id.tb1);
        tb2=findViewById(R.id.tb2);
        login=findViewById(R.id.login);
        lbl=findViewById(R.id.lbl);
        alert=new AlertDialog.Builder(this);
        login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(tb1.getText().toString().equals("ganeshtelore") &&
tb2.getText().toString().equals("GT@2004.")) {

                    alert.setTitle("GT Says..!").setMessage("Login Successfull Welcome
GT!").setPositiveButton("Ok", new DialogInterface.OnClickListener() {
                        @Override
                        public void onClick(DialogInterface dialog, int id) {
                            dialog.dismiss();
                            Intent it=new Intent(getApplicationContext(),target.class);
                            it.putExtra("msg","Hello GT You Logged in Successfully!");
                            startActivity(it);
                        }

                    }).show();
                }else{
                    alert.setTitle("GT Says..!").setMessage("Invalid Username or Password
!").setPositiveButton("Ok", new DialogInterface.OnClickListener() {
                        @Override
                        public void onClick(DialogInterface dialog, int id) {
                            dialog.dismiss();
                        }
                    })
                }
            }
        })
    }
}

```

```

        }).show();
    }
}

});
}
}

```

XML File II:

```

<?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="#81d8d0"
tools:context=".target">

    <TextView
        android:id="@+id/lbl"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="164dp"
        android:layout_marginTop="338dp"
        android:layout_marginEnd="165dp"
        android:layout_marginBottom="366dp"
        android:text="TextView"
        android:textSize="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Java File II:

```

package com.example.q2;

import androidx.appcompat.app.AppCompatActivity;

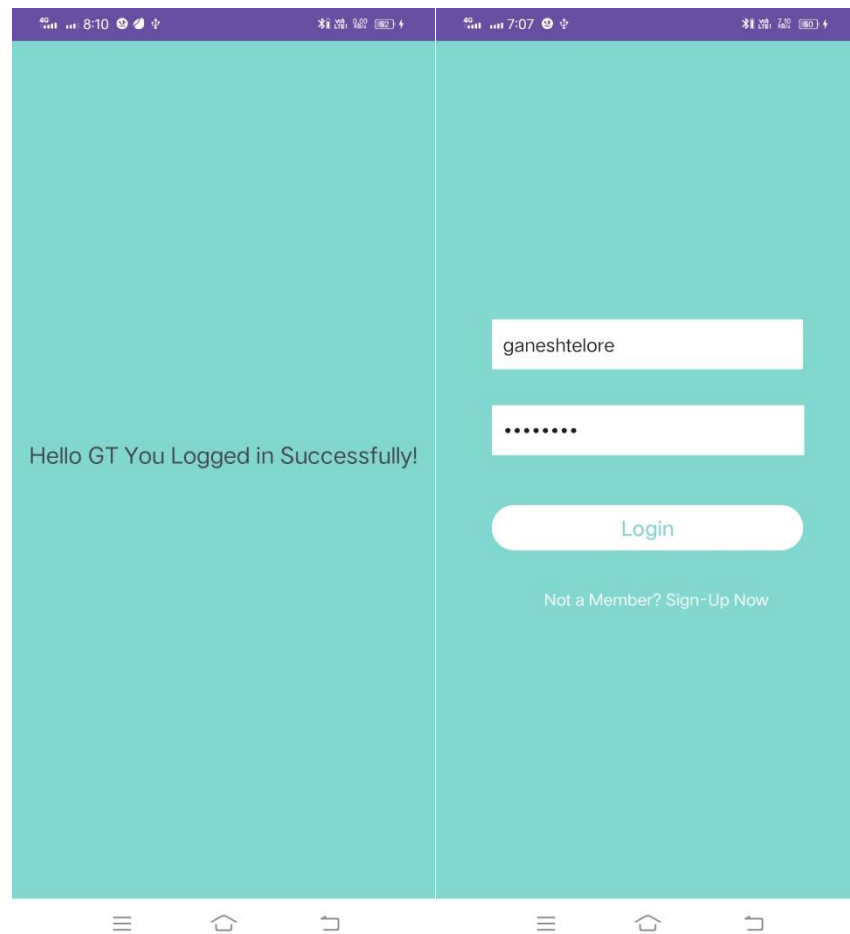
import android.os.Bundle;
import android.widget.*;

public class target extends AppCompatActivity {
    TextView lbl;
    @Override

```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_target);  
    lbl=findViewById(R.id.lbl);  
    lbl.setText(getIntent().getStringExtra("msg"));  
  
    }  
}
```

Output:



ASSIGNMENT 1

SET-B

Q.3 Create following Vertical Scroll View Creation in Android.

Ans:

XML File 1:

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <TableLayout 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">

        <TableRow
            android:layout_width="fill_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="20dp"
            android:layout_marginLeft="40dp">
            <Button
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Button1"
                android:background="@color/design_default_color_background"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toTopOf="parent" />
        </TableRow>
        <TableRow
            android:layout_width="fill_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="20dp"
            android:layout_marginLeft="40dp">
            <Button
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Button2"
                android:background="@color/design_default_color_background"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toTopOf="parent" />
            </Button>
        </TableRow>
    </TableLayout>
</ScrollView>
```

```

</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button3"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button4"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button5"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>

```

```
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button6"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button7"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button8"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
```

```

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button9"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>
<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button10"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow><TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button11"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</TableRow>

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="match_parent"

```

```

        android:layout_marginTop="20dp"
        android:layout_marginLeft="40dp">
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button12"
            android:background="@color/design_default_color_background"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
    </TableRow>
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="20dp"
        android:layout_marginLeft="40dp">
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button13"
            android:background="@color/design_default_color_background"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
    </TableRow>
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="20dp"
        android:layout_marginLeft="40dp">
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button14"
            android:background="@color/design_default_color_background"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
    </TableRow>
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="20dp"
        android:layout_marginLeft="40dp">
        <Button

```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button15"
        android:background="@color/design_default_color_background"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    </TableRow>
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="20dp"
        android:layout_marginLeft="40dp">
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button16"
            android:background="@color/design_default_color_background"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
    </TableRow>

</TableLayout>
</ScrollView>

```

Java File:

```

package com.example.q3;

import androidx.appcompat.app.AppCompatActivity;

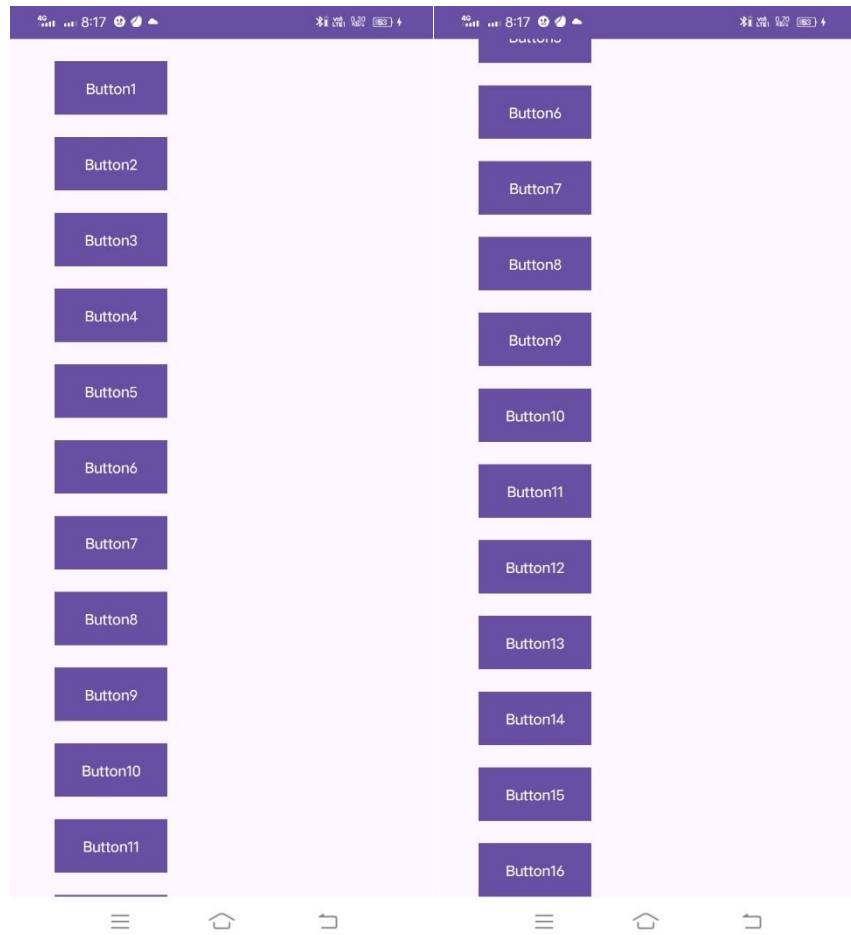
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

```

Output:



ASSIGNMENT 1

SET-B

Q.1 Create a Simple calculator. (Use Linear Layout)

Ans:

XML File 1:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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="#999"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/tb1"
        android:layout_width="379dp"
        android:layout_height="99dp"
        android:layout_marginEnd="35dp"
        android:background="@drawable/border"
        android:gravity="right"
        android:inputType="number"
        android:textColor="#fff"
        android:layout_marginTop="100dp"
        android:textSize="45dp" />

    <LinearLayout
        android:id="@+id/tableLayout"
        android:layout_width="match_parent"
        android:layout_height="425dp"
        android:layout_marginTop="25dp"
        android:background="#e5e4e2"
        android:orientation="vertical">

        <!-- Row 1 -->
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp">

            <Button
                android:id="@+id/clear"
                android:layout_width="40dp"
                android:layout_height="40dp"
                android:layout_weight="2"
```



```
        android:text="AC" />
```

```
<Button
    android:id="@+id/pd"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="+" />
```

```
<Button
    android:id="@+id/divide"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="/" />
```

```
<Button
    android:id="@+id/multiply"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="*" />
```

```
</LinearLayout>
```

```
<!-- Row 2 -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp">
```

```
<Button
    android:id="@+id/seven"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_weight="2"
    android:text="7" />
```

```
<Button
    android:id="@+id/eight"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="8" />
```

```
<Button
    android:id="@+id/nine"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="9" />

<Button
    android:id="@+id/subtract"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="-" />

</LinearLayout>

<!-- Row 3 -->
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp">

    <Button
        android:id="@+id/four"
        android:layout_width="40dp"
        android:layout_height="40dp"
        android:layout_weight="2"
        android:text="4" />

    <Button
        android:id="@+id/five"
        android:layout_width="40dp"
        android:layout_height="40dp"
        android:layout_marginLeft="10dp"
        android:layout_weight="2"
        android:text="5" />

    <Button
        android:id="@+id/six"
        android:layout_width="40dp"
        android:layout_height="40dp"
        android:layout_marginLeft="10dp"
        android:layout_weight="2"
        android:text="6" />
```

```
<Button
    android:id="@+id/add"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="+" />
```

```
</LinearLayout>
```

```
<!-- Row 4 -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp">
```

```
<Button
    android:id="@+id/one"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_weight="2"
    android:text="1" />
```

```
<Button
    android:id="@+id/two"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="2" />
```

```
<Button
    android:id="@+id/three"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="3" />
```

```
<Button
    android:id="@+id/mod"
    android:layout_width="40dp"
    android:layout_height="40dp"
    android:layout_marginLeft="10dp"
    android:layout_weight="2"
    android:text="%" />
```

```
</LinearLayout>
```

```
<!-- Row 5 -->
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="40dp">
```

```
    <Button
```

```
        android:id="@+id/zero"  
        android:layout_width="40dp"  
        android:layout_height="40dp"  
        android:layout_weight="2"  
        android:text="0" />
```

```
    <Button
```

```
        android:id="@+id/dot"  
        android:layout_width="40dp"  
        android:layout_height="40dp"  
        android:layout_marginLeft="10dp"  
        android:layout_weight="2"  
        android:text="." />
```

```
    <Button
```

```
        android:id="@+id/equals"  
        android:layout_width="40dp"  
        android:layout_height="40dp"  
        android:layout_marginLeft="10dp"  
        android:layout_weight="2"  
        android:text="=" />
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
<TextView
```

```
    android:id="@+id/textView2"  
    android:layout_width="228dp"  
    android:layout_height="41dp"  
    android:layout_marginLeft="165dp"  
    android:text="Developed by GT"  
    android:textColor="#fff"  
    android:textSize="25dp" />
```

```
</LinearLayout>
```

Java File:

```
package com.example.q1;

import androidx.appcompat.app.AppCompatActivity;

import android.view.View;
import android.widget.*;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    Button
    one,two,three,four,five,six,seven,eight,nine,zero,add,subtract,divide,multiply,equals,clear,dot,mod;
    EditText tb1;
    double num1, num2, output;
    String op;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tb1 = findViewById(R.id.tb1);
        one = findViewById(R.id.one);
        two = findViewById(R.id.two);
        three = findViewById(R.id.three);
        four = findViewById(R.id.four);
        five = findViewById(R.id.five);
        six = findViewById(R.id.six);
        seven = findViewById(R.id.seven);
        eight = findViewById(R.id.eight);
        nine = findViewById(R.id.nine);
        zero = findViewById(R.id.zero);
        add = findViewById(R.id.add);
        subtract = findViewById(R.id.subtract);
        multiply = findViewById(R.id.multiply);
        divide = findViewById(R.id.divide);
        equals = findViewById(R.id.equals);
        clear = findViewById(R.id.clear);
        dot = findViewById(R.id.dot);
        mod=findViewById(R.id.mod);
        one.setOnClickListener(this);
        two.setOnClickListener(this);
        three.setOnClickListener(this);
        four.setOnClickListener(this);
        five.setOnClickListener(this);
        six.setOnClickListener(this);
        seven.setOnClickListener(this);
        eight.setOnClickListener(this);
```

```

nine.setOnClickListener(this);
zero.setOnClickListener(this);
add.setOnClickListener(this);
subtract.setOnClickListener(this);
multiply.setOnClickListener(this);
divide.setOnClickListener(this);
equals.setOnClickListener(this);
clear.setOnClickListener(this);
dot.setOnClickListener(this);
mod.setOnClickListener(this);
}

```

@Override

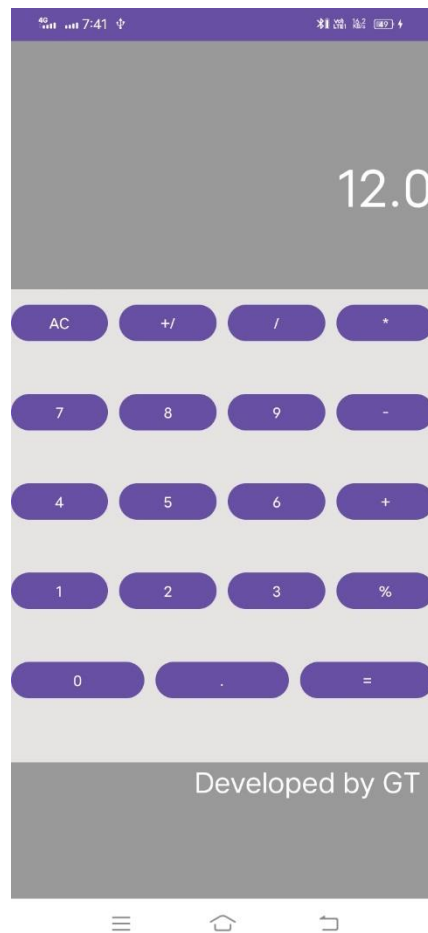
```

public void onClick(View v) {
    String res=((Button)v).getText().toString();
    try {
        if("0123456789.".contains(res)){
            tb1.setText(tb1.getText()+res);
        }else if("+-*/%".contains(res)){
            op=res;
            num1=Double.parseDouble(tb1.getText().toString());
            tb1.setText("");
        } else if(res.equals("=")){
            num2=Double.parseDouble(tb1.getText().toString());
            switch(op){
                case "+":
                    output=num1+num2;
                    break;
                case "-":
                    output=num1-num2;
                    break;
                case "*":
                    output=num1*num2;
                    break;
                case "/":
                    if (num2!=0) {
                        output=num1/num2;
                    }else{
                        tb1.setText("Error");
                        return;
                    }
                    break;
                case "%":
                    output=num1%num2;
                    break;
            }
            tb1.setText(String.valueOf(output));
        }else if(res.equals("AC")) {

```

```
        tb1.setText("");
        num1=num2=output=0;
    }
    }catch(Exception e){
        System.out.println(e);
    }
    }
}
```

Output:



ASSIGNMENT 1

SET-B

Q.2 Create an Android Application to convert Indian Rupee(IND) to USD & EUR.

Ans:

XML File 1:

```
<?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="#fff"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="@drawable/baseline_arrow_back_ios_24"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.041"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.039" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="219dp"
        android:layout_height="31dp"
        android:layout_marginStart="76dp"
        android:layout_marginTop="24dp"
        android:layout_marginEnd="117dp"
        android:text="Currency Convertor"
        android:textAlignment="center"
        android:textSize="20dp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.487"
        app:layout_constraintStart_toEndOf="@+id/textView2"
        app:layout_constraintTop_toTopOf="parent" />

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



```
android:layout_height="wrap_content"
android:layout_marginStart="14dp"
android:layout_marginTop="78dp"
android:layout_marginEnd="151dp"
android:layout_marginBottom="62dp"
android:text="INR -"
app:layout_constraintBottom_toTopOf="@+id/textView4"
app:layout_constraintEnd_toStartOf="@+id/tb1"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView2" />
```

<TextView

```
android:id="@+id/textView4"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="14dp"
android:layout_marginEnd="129dp"
android:layout_marginBottom="63dp"
android:text="USD -"
app:layout_constraintBottom_toTopOf="@+id/textView5"
app:layout_constraintEnd_toStartOf="@+id/lbl1"
app:layout_constraintStart_toStartOf="parent" />
```

<TextView

```
android:id="@+id/textView5"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="16dp"
android:layout_marginTop="60dp"
android:layout_marginEnd="119dp"
android:text="EUR -"
app:layout_constraintEnd_toStartOf="@+id/lbl2"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

<EditText

```
android:id="@+id/tb1"
android:layout_width="200dp"
android:layout_height="38dp"
android:gravity="right"
android:hint="₹"
android:layout_marginStart="120dp"
android:layout_marginTop="67dp"
android:background="@drawable/border"
android:ems="10"
android:textSize="16dp"
android:inputType="number"
app:layout_constraintStart_toEndOf="@+id/textView3"
```

```
app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<TextView  
    android:id="@+id/lbl2"  
    android:layout_width="200dp"  
    android:layout_height="38dp"  
    android:textSize="16dp"  
    android:layout_marginStart="119dp"  
    android:layout_marginTop="41dp"  
    android:background="@drawable/border"  
    android:gravity="right"  
    android:hint="€"  
    app:layout_constraintStart_toEndOf="@+id/textView5"  
    app:layout_constraintTop_toBottomOf="@+id/lbl1" />
```

```
<TextView  
    android:id="@+id/lbl1"  
    android:layout_width="200dp"  
    android:layout_height="38dp"  
    android:layout_marginStart="120dp"  
    android:layout_marginTop="42dp"  
    android:layout_marginBottom="41dp"  
    android:background="@drawable/border"  
    android:gravity="right"  
    android:hint="$"  
    android:textSize="16dp"  
    app:layout_constraintBottom_toTopOf="@+id/lbl2"  
    app:layout_constraintStart_toEndOf="@+id/textView4"  
    app:layout_constraintTop_toBottomOf="@+id/tb1" />
```

```
<TextView  
    android:id="@+id/textView8"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginStart="36dp"  
    android:layout_marginEnd="36dp"  
    android:layout_marginBottom="356dp"  
    android:text="Exchange rates are provided by Webuill(19 April 2022)"  
    android:textColor="#999"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent" />
```

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

Java File:

```
package com.example.q2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.text.Editable;
import android.text.TextWatcher;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    EditText tb1;
    TextView lbl1, lbl2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tb1=findViewById(R.id.tb1);
        lbl1=findViewById(R.id.lbl1);
        lbl2=findViewById(R.id.lbl2);
        tb1.addTextChangedListener(new TextWatcher() {
            @Override
            public void beforeTextChanged(CharSequence s, int start, int count, int before) {

            }

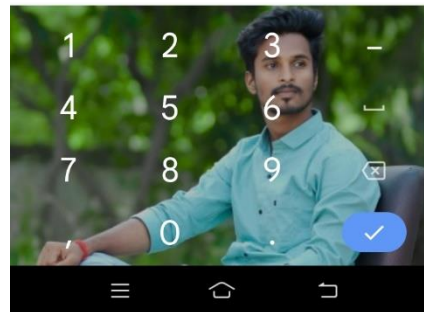
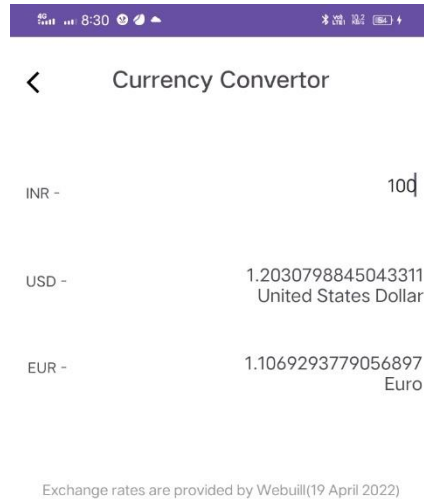
            @Override
            public void onTextChanged(CharSequence s, int start, int before, int count) {

            }

            @Override
            public void afterTextChanged(Editable s) {
                try{
                    int rs= Integer.parseInt(tb1.getText().toString());
                    double usd= rs / 83.12;
                    double eur=rs/90.34;
                    lbl1.setText(String.valueOf(usd)+"\nUnited States Dollar");
                    lbl2.setText(String.valueOf(eur)+"\nEuro");
                }catch (Exception e){
                    System.out.println(e);
                }
            }
        });
    }
}
```

```
}  
}
```

Output:



Thank You..!

GT