

1. Android - Hello World !

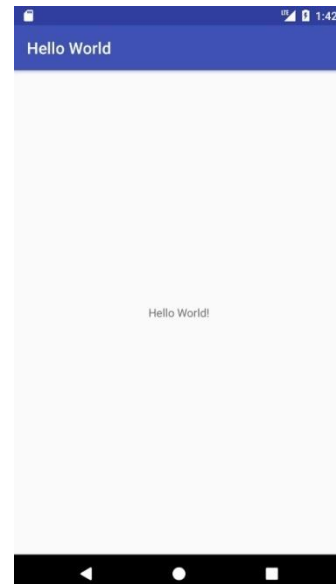
MainActivity.java

```
package com.example.helloworld;
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);
}
}
```

activity_main.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"
android:orientation="vertical"
tools:context="com.example.helloworld.MainActivity">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginLeft="150dp"
android:layout_marginTop="150dp"
android:text="Hello World!"
tools:ignore="MissingConstraints" />
<ImageView
android:layout_width="408dp"
android:layout_height="430dp"
android:src="@drawable/android"
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="0dp"
tools:layout_editor_absoluteY="122dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output:-



2. To create an android app to show and implement table layout

Step 1:

activity_main.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">

<TableLayout android:layout_width="match_parent"
android:layout_height="match_parent"
```

```
android:layout_marginTop="100dp"
```

```
android:paddingLeft="10dp"
android:paddingRight="10dp">
```

```
<TableRow android:background="#0079D6" android:padding="5dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="Name"
/>
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="Roll"
/>
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:text="Location" />
```

```
</TableRow>
```

```
<TableRow android:background="#DAE8FC" android:padding="5dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="1" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="Suresh
Dasari" />
```

```
<TextView
    android:layout_width="wrap_content" android:layout_height="wrap_content" android:layout_weight="1"
    android:text="Hyderabad" />
```

```
</TableRow>
```

```
<TableRow android:background="#DAE8FC" android:padding="5dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="2" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="Rohini
Alavala" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="Mumbai"
/>
```

```
</TableRow>
```

```
<TableRow android:background="#DAE8FC" android:padding="5dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="3" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:text="Trishika Dasari" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1" android:text="New
Delhi" />
```

```
</TableRow>
```

</TableLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

Step 2:

MainActivity.java=>

```
package com.example.tl;

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);
    }
}
```

Step 3:

AndroidManifest.xml=>

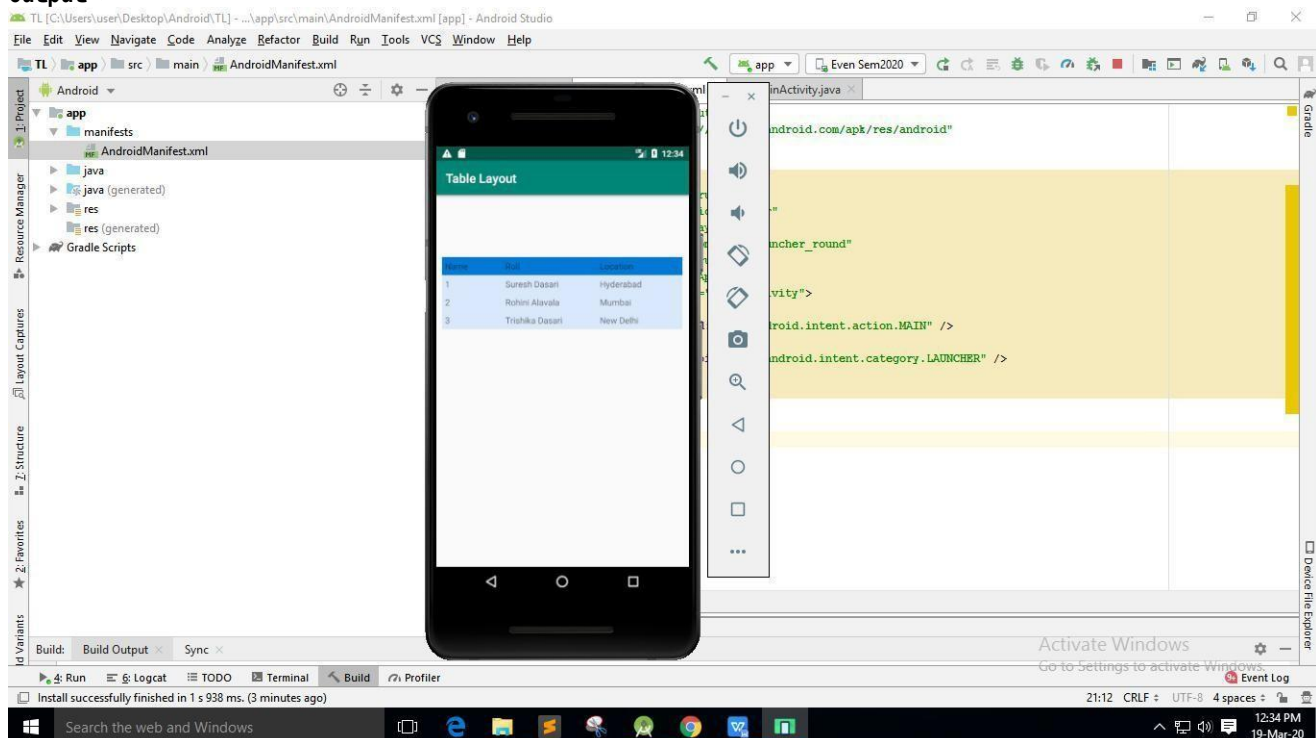
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.tl">

    <application android:allowBackup="true" android:icon="@mipmap/ic_launcher"
        android:label="Table Layout"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

</manifest>
```

Output=>



3. Create an android app to implement table layout and button click event

Step 1:
activity_main.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">

    <TableLayout android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp"
        android:weightSum="1">

        <TableRow
android:layout_width="match_parent"android:layout_height="0dp"

            android:layout_weight=".33">
            <TextView
                android:id="@+id/textView"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_weight="1" android:text=""
                android:textSize="22dp"/>
            </TableRow>
            <TableRow
                android:layout_width="match_parent"
                android:layout_height="0dp"
                android:layout_weight=".33">
                <Button
                    android:id="@+id/button"
                    android:layout_width="0dp"
                    android:layout_height="match_parent"
                    android:layout_weight=".33" android:text="1"
                    android:onClick="onClick"/>
                <Button
                    android:id="@+id/button2"
                    android:layout_width="0dp"
                    android:layout_height="match_parent"
                    android:layout_weight=".33" android:text="2"
                    android:onClick="onClick"/>
                <Button
                    android:id="@+id/button3"
                    android:layout_width="0dp"
                    android:layout_height="match_parent"
                    android:layout_weight=".33" android:text="3"
                    android:onClick="onClick"/>
            </TableRow>
            <TableRow
                android:layout_width="match_parent"
                android:layout_height="0dp"
                android:layout_weight=".33">
                <Button
                    android:id="@+id/button4"
                    android:layout_width="0dp"
                    android:layout_height="match_parent"
                    android:layout_weight=".5" android:text="4"
                    android:onClick="onClick"/>
                <Button
                    android:id="@+id/button5"
                    android:layout_width="0dp"
                    android:layout_height="match_parent"
                    android:layout_weight=".5" android:text="5"
                    android:onClick="onClick"/>
            </TableRow>
        </TableLayout>

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

Step 2:

```

MainActivity.java=>
package com.example.tl2;

import androidx.appcompat.app.AppCompatActivity;

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

import android.widget.Button;

public class MainActivity extends AppCompatActivity {@Override
    protected void onCreate(Bundle savedInstanceState)
    {super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    }

    public void onClick(View v) {

        TextView editName = findViewById(R.id.textView);
        //editName.setText(((Button)v).getText());

        switch(v.getId()){
            case R.id.button: editName.setText(editName.getText()+"1");
                break;
            case R.id.button2: editName.setText(editName.getText()+"2");
                break;
            case R.id.button3: editName.setText(editName.getText()+"3");
                break;
            case R.id.button4: editName.setText(editName.getText()+"4");
                break;
            case R.id.button5: editName.setText(editName.getText()+"5");
                break;
        }
    }
}

```

Step 3:

AndroidManifest.xml=>

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.tl2">

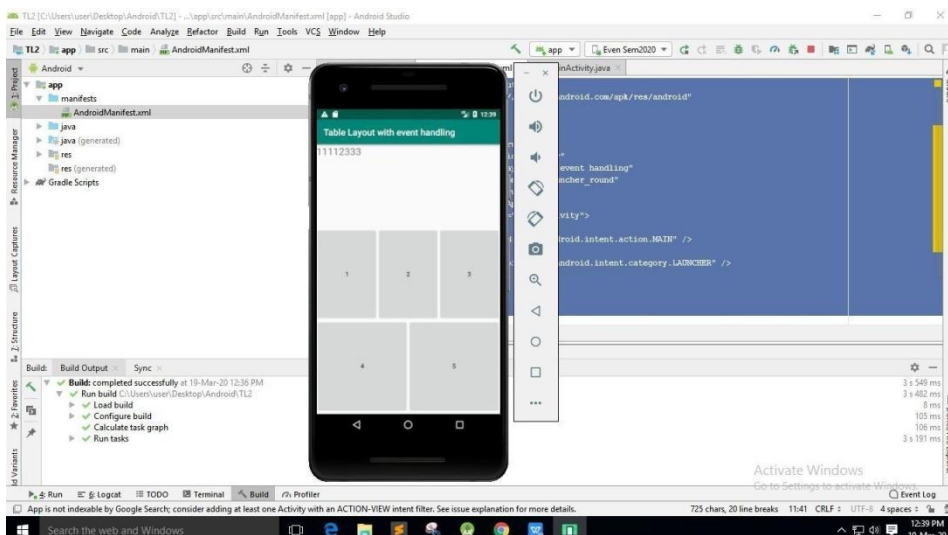
    <application android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="Table Layout with event handling"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true" android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

</manifest>

```

Output=>



4. Create an android app that will check wheather givennumber supplied as an input is prime or not.

Step 1:

Activity_main.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">

    <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
        android:layout_height="wrap_content"
        tools:context=".MainActivity" >

        <EditText
            android:id="@+id/editText1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentLeft="true"
            android:layout_alignParentTop="true"
            android:layout_marginLeft="18dp"
            android:layout_marginTop="46dp" android:ems="10"
            android:hint="Enter Number"
            android:inputType="number" />

        <Button
            android:id="@+id/button1" android:layout_width="wrap_content" android:layout_height="wrap_content"
            android:layout_alignLeft="@+id/editText1"android:layout_below="@+id/editText1"
            android:layout_marginTop="34dp"
                android:text="Check" />

    </RelativeLayout>

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

Step 2:

MainActivity.java=>

```
package com.example.prime_no;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button; import
android.widget.EditText; import
android.widget.Toast;

public class MainActivity extends AppCompatActivity {EditText
    input;
    Button Check;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        input=(EditText)findViewById(R.id.editText1);
        Check=(Button)findViewById(R.id.button1);

        Check.setOnClickListener(new OnClickListener()
        {

            @Override
            public void onClick(View arg0) {
                double n = Double.parseDouble(input.getText().toString());
```

```

    int f = 0;

    for (int i = 2; i < n; i++)
    {
        if (n % i == 0)f = 1;
    }

    if (f == 0)
    {
        Toast t = Toast.makeText(getApplicationContext(),"Given
        Number is Prime Number", Toast.LENGTH_SHORT);
        t.show();
    }else{
        Toast t = Toast.makeText(getApplicationContext(),"Given
        Number is Not a Prime Number", Toast.LENGTH_SHORT);
        t.show();
    }
    });
}
}

```

Step 3:

AndroidManifest.xml=>

```

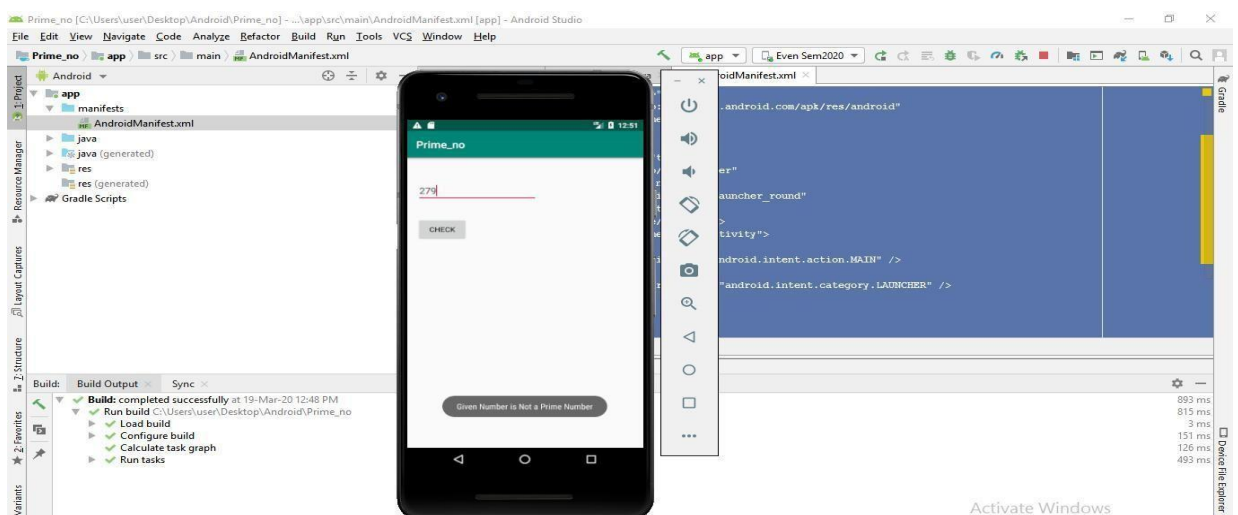
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.prime_no">

    <application android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

```

</manifest>
Output=>



5. Create an android app that will check wheater given username and password matches with the predefined username and password.

Step 1:

activity_main.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">

<RelativeLayout android:layout_width="match_parent"
android:layout_height="wrap_content"
android:paddingBottom="@dimen/activity_vertical_margin"
android:paddingLeft="@dimen/activity_horizontal_margin"
android:paddingRight="@dimen/activity_horizontal_margin"
android:paddingTop="@dimen/activity_vertical_margin"
tools:context=".MainActivity" >

<ImageView
android:id="@+id/simpleImageViewMonkey"
android:layout_width="150dp"
android:layout_height="150dp"
android:padding="30dp"
android:layout_marginLeft="120dp"
android:scaleType="fitXY"
android:src="@drawable/ig"
tools:layout_editor_absoluteX="132dp"
tools:layout_editor_absoluteY="128dp" />

<TextView
android:layout_width = "wrap_content"
android:layout_height = "wrap_content"
android:text = "Log Screen" android:id =
"@+id/textView"
android:layout_centerHorizontal = "true"
android:textColor = "#ff7aff24"
android:layout_marginTop="110dp" android:textSize
= "35dp" />

<EditText
android:layout_width = "wrap_content"
android:layout_height = "wrap_content" android:id =
"@+id/editText" android:hint = "Enter Username"
android:focusable = "true"
android:textColorHighlight = "#ff7eff15"
android:textColorHint = "#ffff25e6"
android:layout_marginTop = "150dp"
android:layout_alignParentLeft = "true"
android:layout_alignParentStart = "true"
android:layout_alignParentRight = "true"
android:layout_alignParentEnd = "true" />

<EditText
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:inputType="textPassword" android:ems="10"
android:id="@+id/editText2"
android:layout_below="@+id/editText"
android:layout_alignParentLeft="true"
android:layout_alignParentStart="true"
android:layout_alignRight="@+id/editText"
android:layout_alignEnd="@+id/editText"
android:textColorHint="#ffff299f"
android:hint="Password" />

<Button
android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/editText2"
android:text="Login" />

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

```

```

MainActivity.java=>
package com.example.logscreen;

import androidx.appcompat.app.AppCompatActivity;

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

import android.content.Intent;
import android.net.Uri;

public class MainActivity extends AppCompatActivity {Button b1;
    EditText ed1,ed2;

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

        b1 = (Button)findViewById(R.id.button);
        ed1 = (EditText)findViewById(R.id.editText);
        ed2 = (EditText)findViewById(R.id.editText2);

        b1.setOnClickListener(new View.OnClickListener() {@Override
            public void onClick(View v) {
                if(ed1.getText().toString().equals("admin") &&
ed2.getText().toString().equals("admin")) {
                    Toast.makeText(getApplicationContext(),
                        "Redirecting...",Toast.LENGTH_SHORT).show();

                    Intent intent = new Intent(getBaseContext(), SecondActivity.class);startActivity(intent);
                }else {
                    Toast.makeText(getApplicationContext(), "Wrong
Credentials",Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}

```

Step 3: Create **activity_second.xml** file and write the following code-
activity_second.xml=>

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools" android:orientation="vertical"
    android:layout_width="match_parent" android:layout_height="match_parent"
    tools:context=".SecondActivity

```

Step 4:

Create **SecondActivity.java** file and write the following code-

SecondActivity.java=>

```

package com.example.logscreen;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.Toast;

public class SecondActivity extends AppCompatActivity {@Override
    protected void onCreate(Bundle savedInstanceState)
    {super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);

        Toast.makeText(getApplicationContext(), "We are moved to second

```

```
Activity", Toast.LENGTH_LONG).show();
    }
}
```

Step 5: AndroidManifest.xml=>

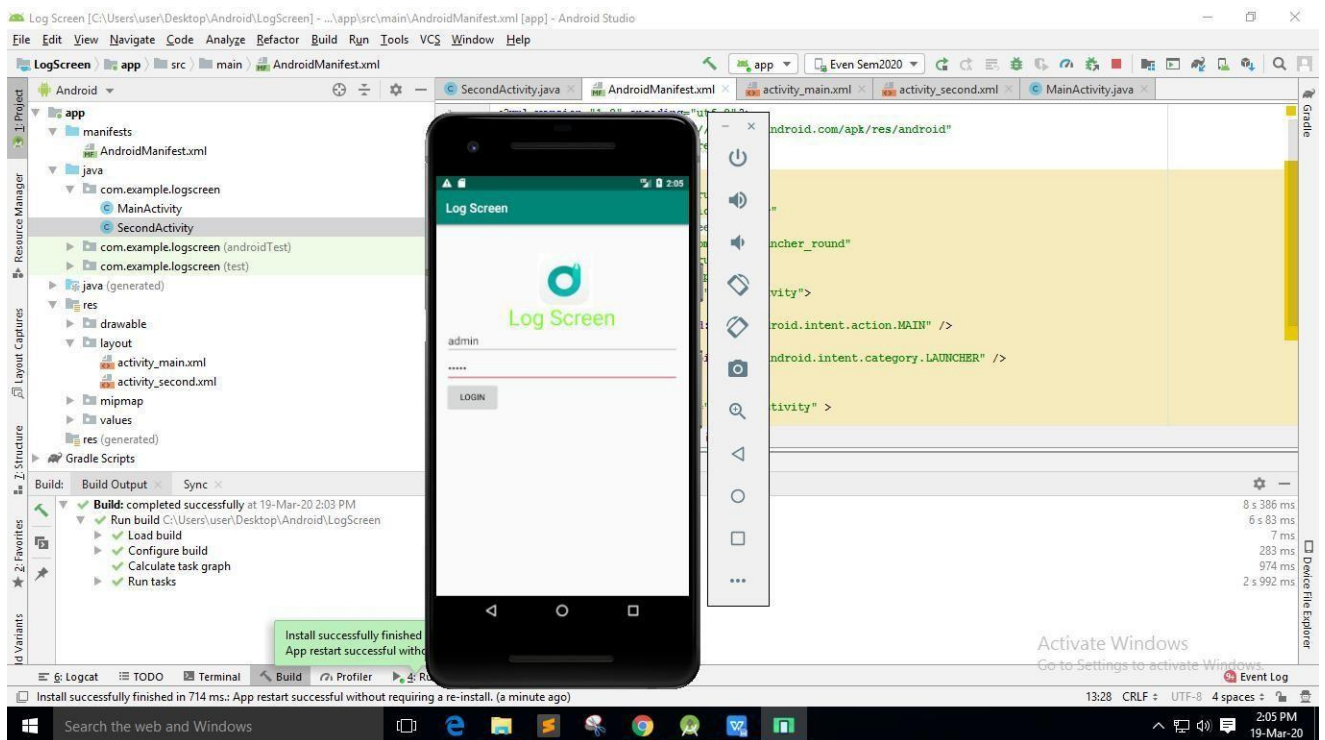
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.logscreen">

    <application android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

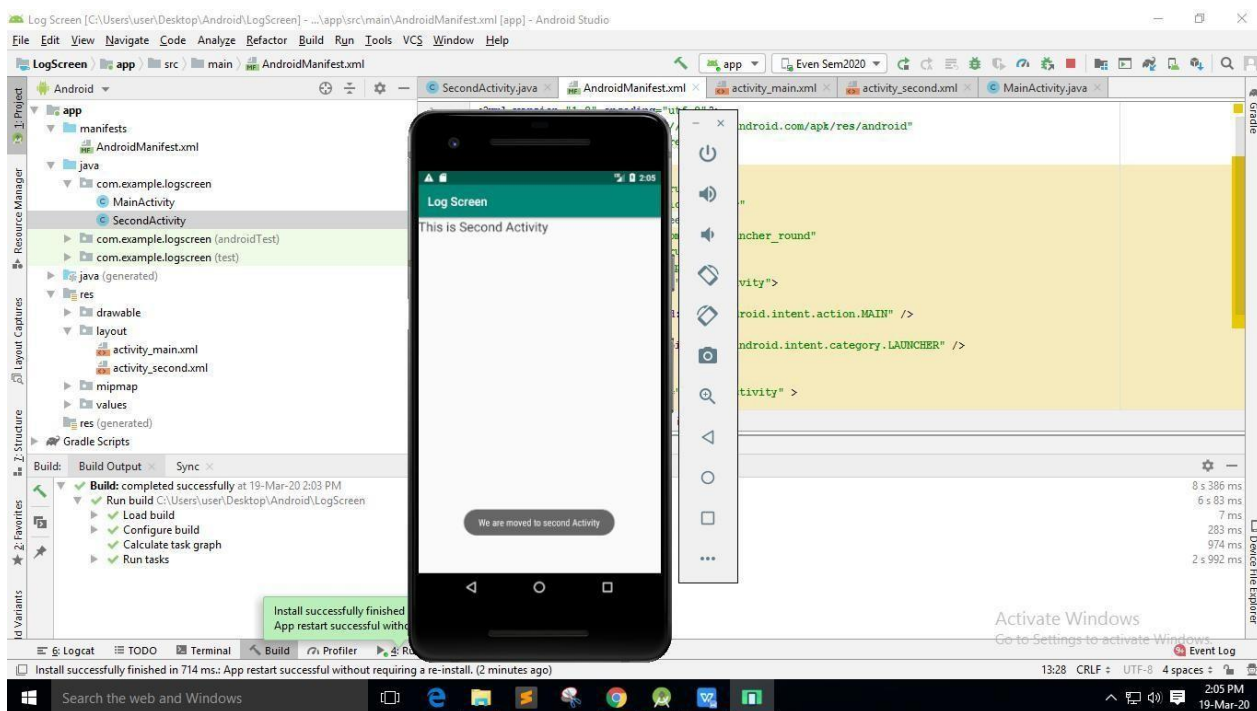
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity android:name=".SecondActivity" >

            </activity>
        </application>

</manifest>
Output=>
```



After enter username and password and press Login button-



Step 1:

Let's design the UI of activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<RelativeLayout 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:layout_width="wrap_content" android:layout_height="wrap_content"
```

```
    android:textAppearance="?android:attr/textAppearanceMedium"
```

if you click on Implicit example AbhiAndroid Homepage will open in Browser"

```
    android:id="@+id/textView2"
```

```
    android:clickable="false"
```

```
    android:layout_alignParentTop="true"
```

```
    android:layout_marginTop="42dp"
```

```
    android:background="#3e7d02"
```

```
    android:textColor="#ffffff" />
```

```
<Button
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Explicit Intent Example"
```

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

```
    android:layout_alignParentTop="true"
```

```
    android:layout_centerHorizontal="true"
```

```
    android:layout_marginTop="147dp" />
```

```
<Button
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content" android:text="Implicit Intent"
```

```
    Example" android:id="@+id/implicit_intent"
```

```
    android:layout_centerVertical="true"
```

```
    android:layout_centerHorizontal="true" />
```

```
</RelativeLayout>
```

Step 2:

Design the UI of second activity `activity_second.xml`:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android" android:orientation="vertical"
    xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".SecondActivity">
```

```
    <TextView
        android:layout_width="wrap_content" android:layout_height="wrap_content"
        android:textAppearance="?android:attr/textAppearanceLarge" android:text="This is
        Second Activity" android:id="@+id/textView" android:layout_centerVertical="true"
```

Step 3:

Implement `onClick` event for Implicit And Explicit Button inside `MainActivity.java`:

```
package com.example.intent;
```

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

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

```
import android.content.Intent; import
android.net.Uri; import android.view.View;
import android.widget.Button;
```

```
public class MainActivity extends AppCompatActivity
```

```
{Button explicit_btn, implicit_btn;
```

```
    @Override
```

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

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

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

```
    explicit_btn = (Button) findViewById(R.id.explicit_intent);
```

```
    implicit_btn = (Button) findViewById(R.id.implicit_intent);
```

```
    //implement OnClick event for Explicit Intent
```

```
    explicit_btn.setOnClickListener(new View.OnClickListener() { @Override
```

```
        public void onClick(View v) {
```

```
            Intent intent = new Intent(getApplicationContext(), SecondActivity.class); startActivity(intent);
```

```
        }
```

```
    });
```

```
    //implement onClick event for Implicit Intent
```

```
    implicit_btn.setOnClickListener(new View.OnClickListener() { @Override
```

```
public void onClick(View v) {
```

```
    }
```

```
});
```

```
    //implement onClick event for Implicit Intent
```

```
    implicit_btn.setOnClickListener(new View.OnClickListener() { @Override
```

```
public void onClick(View v) {
```

```
    });
```

```
}
```

```
}
```

Step 4:

Create A New JAVA class name **SecondActivity.java**:

package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.Toast;

```
public class SecondActivity extends AppCompatActivity {@Override
    protected void onCreate(Bundle savedInstanceState)
    {super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_second);
```

```
        Toast.makeText(getApplicationContext(), "We are moved to second
Activity",Toast.LENGTH_LONG).show();
    }
}
```

Step 5:

Manifest file(AndroidManifest.xml):

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.intent">
```

```
    <application android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

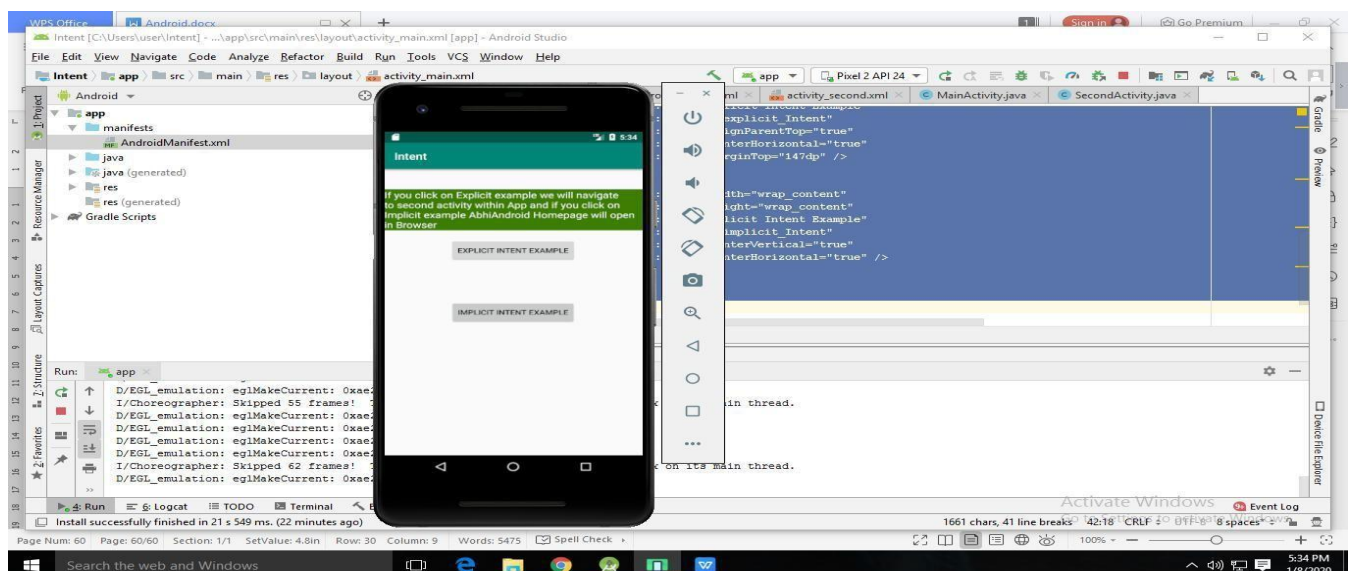
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity android:name=".SecondActivity" >

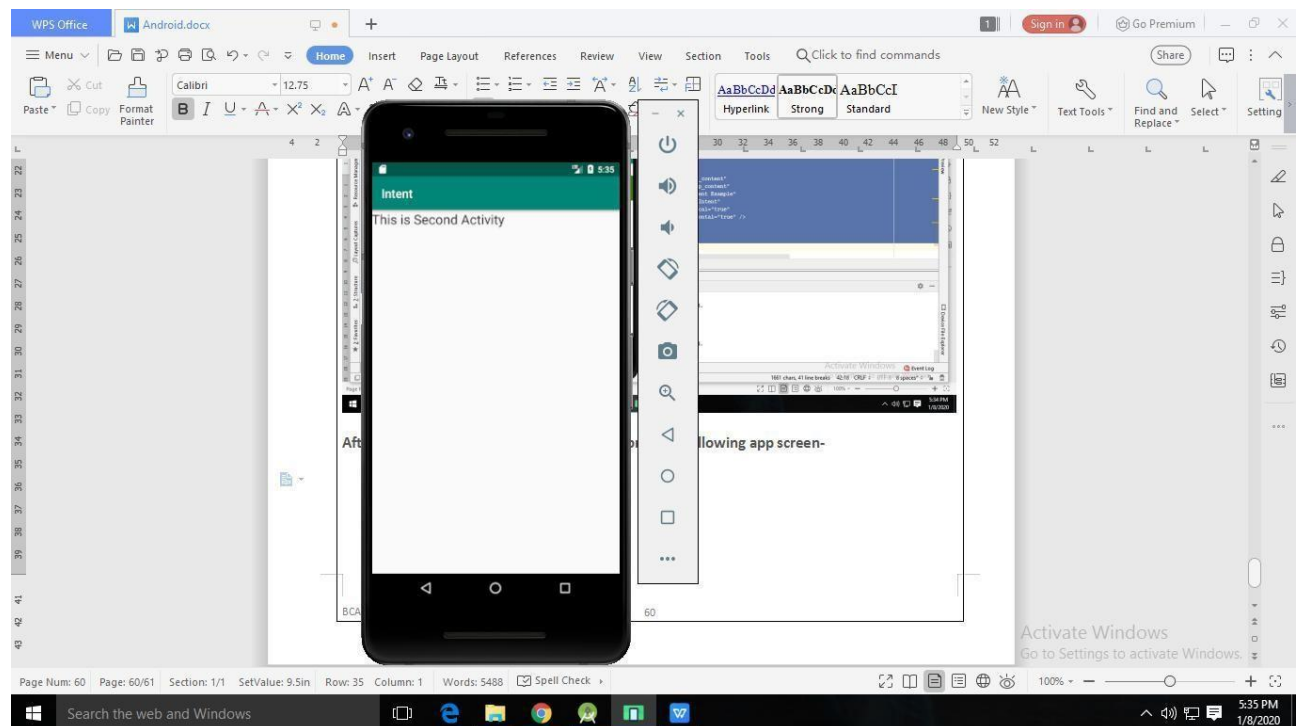
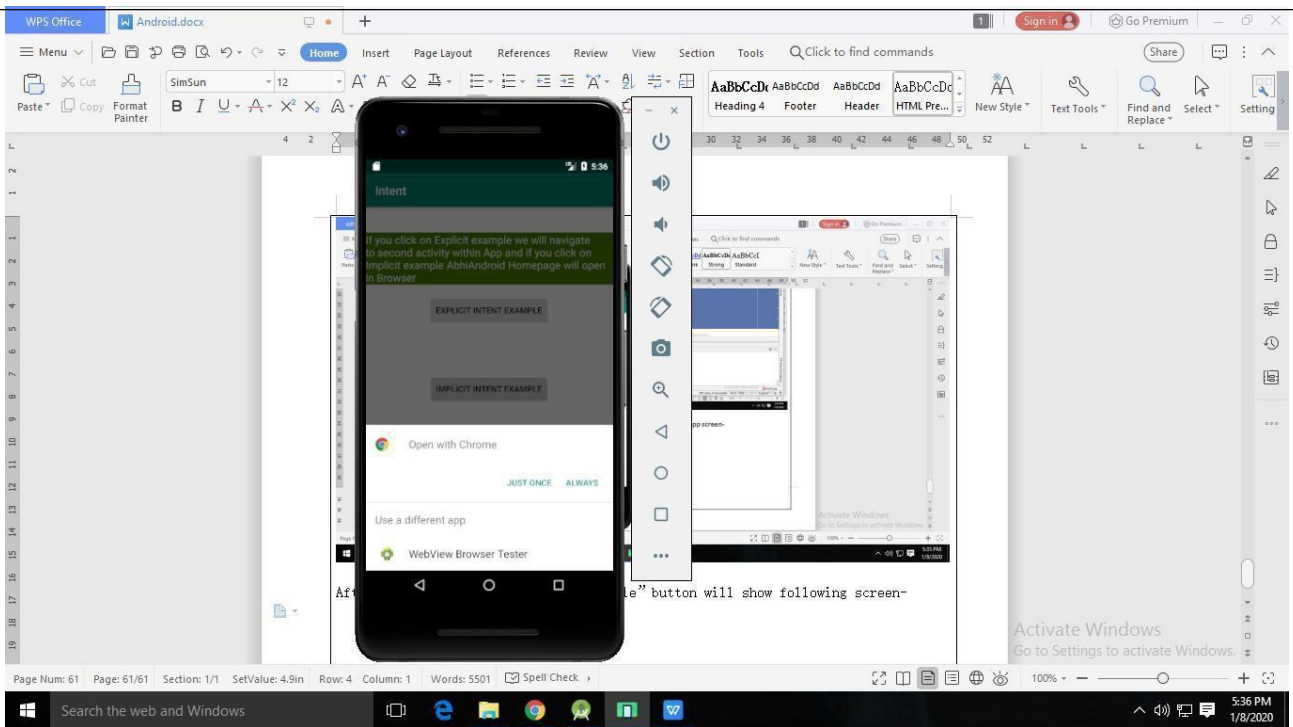
            </activity>
        </application>
```

```
</manifest>
```

Output=>

After click on “Explicit Intent example” button show following app screen-





7.Create an android app to develop a calculator

Step 1: Create a new android project-> open “activity_main.xml” file write the following code-

```
activity_main.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">

    <TableLayout android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginBottom="16dp"
        android:weightSum="1"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintLeft_toLeftOf="parent">

        <TableRow
            android:layout_width="match_parent"android:layout_height="0dp"
            android:layout_weight=".33" android:orientation="horizontal"
            android:weightSum="1">

            <TextView
                android:id="@+id/textView"
                android:layout_width="0dp"
                android:layout_height="match_parent"
                android:layout_weight="1" android:weightSum="1"
                android:textSize="30dp" android:textColor="#000000"
                android:text="" />

            </TableRow>

            <TableRow
            android:layout_width="match_parent"android:layout_height="0dp"
            android:layout_weight=".20" android:orientation="horizontal"
            android:weightSum="1">

            <Button
                android:id="@+id/button0" android:layout_width="0dp"
                android:layout_height="match_parent"android:layout_weight=".20" android:text="0"
                android:textSize="22dp"
                android:textColor="#000000"android:onClick="onClick"/>

            <Button
                android:id="@+id/button1"
                android:layout_width="0dp"
                android:layout_height="match_parent"
                android:layout_weight=".20" android:text="1"
                android:textSize="22dp"
                android:textColor="#000000"
                android:onClick="onClick"/>

            <Button
                android:id="@+id/button2"
                android:layout_width="0dp"
                android:layout_height="match_parent"
                android:layout_weight=".20" android:text="2"
                android:textSize="22dp"
                android:textColor="#000000"
                android:onClick="onClick"/>

            <Button
                android:id="@+id/button3"
                android:layout_width="0dp"
                android:layout_height="match_parent"
                android:layout_weight=".20" android:text="3"
                android:textSize="22dp"
                android:textColor="#000000"
                android:onClick="onClick"/>

            <Button
                android:id="@+id/button4"
                android:layout_width="0dp"
```



```

        android:layout_height="match_parent"
        android:layout_width=".20" android:text="4"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
</TableRow>

<TableRow
android:layout_width="match_parent"android:layout_height="0dp"
android:layout_weight=".20" android:orientation="horizontal"
android:weightSum="1">
<Button
        android:id="@+id/button5"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="5"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button6"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="6"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button7" android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20"

        android:text="7" android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button8"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="8"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button9"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="9"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
</TableRow>

<TableRow
android:layout_width="match_parent"android:layout_height="0dp"
android:layout_weight=".20" android:orientation="horizontal"
android:weightSum="1" >
<Button
        android:id="@+id/button_plus"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="+"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button_minus"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="-"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>

<Button
        android:id="@+id/button_mult"

```

```

        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="*"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
<Button
        android:id="@+id/button_div"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".20" android:text="/"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
<Button
        android:id="@+id/button_mod" android:layout_width="0dp"
        android:layout_height="match_parent"

        android:layout_weight=".20"android:text="%"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
</TableRow>
<TableRow
        android:layout_width="match_parent"android:layout_height="0dp"
        android:layout_weight=".20" android:orientation="horizontal"
        android:weightSum="1" >
<Button
        android:id="@+id/button_c"
        android:layout_width="0dp"
        android:layout_height="100dp"
        android:layout_weight=".20" android:text="C"
        android:textSize="22dp"
        android:textColor="#000000"
        android:onClick="onClick"/>
<Button
        android:id="@+id/button_equal"
        android:layout_width="0dp"
        android:layout_height="100dp"
        android:layout_weight=".80" android:text="="
        android:textSize="22dp"
        android:textColor="#000000"
        android:background="#808080"
        android:onClick="onClick"/>
</TableRow>
</TableLayout>
</androidx.constraintlayout.widget.ConstraintLayout>

```

Step 2: Now open “MainActivity.java” file and write the following code–

```

        MainActivity.java=>
package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import
android.view.View; import
android.widget.Button; import
android.widget.TextView;

public class MainActivity extends AppCompatActivity {String
    preVal="";
    String operator="";String
    curVal=""; int finalVal=0;

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

    }

```

```

public void onClick(View v){
    TextView t = findViewById(R.id.textView);

    switch(v.getId()){
        case R.id.button0: t.setText(t.getText()+"0");
break;

        case R.id.button1: t.setText(t.getText()+"1");
break;

        case R.id.button2: t.setText(t.getText()+"2");
break;

        case R.id.button3: t.setText(t.getText()+"3");
break;

        case R.id.button4: t.setText(t.getText()+"4");
break;

        case R.id.button5: t.setText(t.getText()+"5");
break;

        case R.id.button6: t.setText(t.getText()+"6");
break;

        case R.id.button7: t.setText(t.getText()+"7");
break;

        case R.id.button8: t.setText(t.getText()+"8");
break;

        case R.id.button9: t.setText(t.getText()+"9");
break;

        case R.id.button_c: t.setText("");
break;

        case R.id.button_plus: preVal="" + t.getText();
            t.setText("");
            b=findViewById(R.id.button_plus);
            operator="" + b.getText();
            break;
        case R.id.button_minus: preVal="" + t.getText();
            t.setText(""); b=findViewById(R.id.button_minus);
            operator="" + b.getText();
            break;
        case R.id.button_mult: preVal="" + t.getText();
            t.setText(""); b=findViewById(R.id.button_m
            ult); operator="" + b.getText();
            break;
        case R.id.button_div: preVal="" + t.getText();
            t.setText(""); b=findViewById(R.id.button_div);
            operator="" + b.getText();
            break;

        case R.id.button_equal:
            if(operator.equals("+")) {
                curVal="" + t.getText(); finalVal=Integer.parseInt(preVal)+Integer.parseInt(curVal);
                t.setText(finalVal+"");
            }
            if(operator.equals("-")) {
                curVal="" + t.getText();
                finalVal=Integer.parseInt(preVal)-Integer.parseInt(curVal); t.setText(finalVal+"");
            }
            if(operator.equals("*")) {
                curVal="" + t.getText(); finalVal=Integer.parseInt(preVal)*Integer.parseInt(curVal);
                t.setText(finalVal+"");
            }
            if(operator.equals("/")) {
                curVal="" + t.getText(); finalVal=Integer.parseInt(preVal)/Integer.parseInt(curVal);
                t.setText(finalVal+"");
            }
            if(operator.equals("%")) {
curVal="" + t.getText(); finalVal=Integer.parseInt(preVal)%Integer.parseInt(curVal);

                t.setText(finalVal+"");

```

Step 3: Now open “AndroidManifest.xml” file and write the following code-

AndroidManifest.xml=>

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

    <application android:allowBackup="true"
        android:icon="@drawable/calculatorlogo"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true" android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
<intent-filter>
            <action android:name="android.intent.action.MAIN" />

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

</manifest>
```

Output=>

