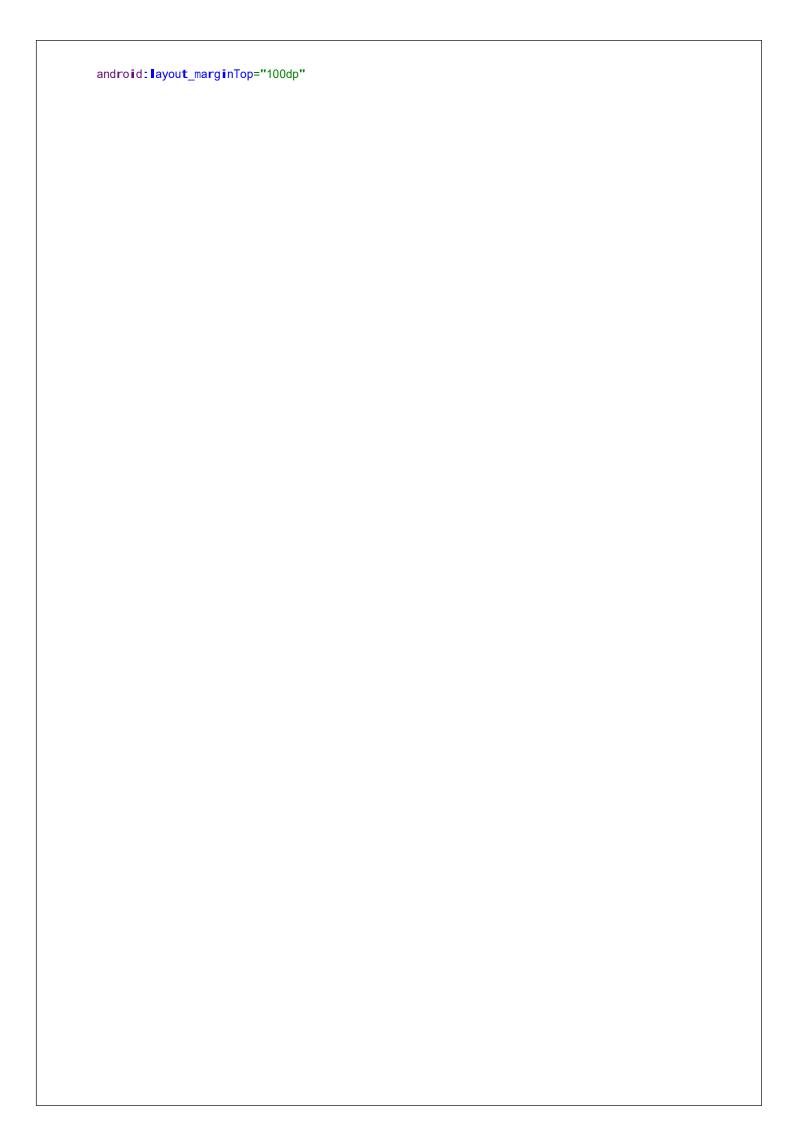
## 1. Android - Hello World!

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</pre>
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" />
<!mageView</pre>
android: layout_width="408dp"
android: layout_height="430dp"
android:src="@drawable/android"
                                                                          Hello World
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="0dp"
tools:layout_editor_absoluteY="122dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
Output:-
                                                                                    Hello World!
     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</pre>
 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"</pre>
         android: layout_height="match_parent"
```



```
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: ayout 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: ayout height="wrap content"
                android: layout_weight="1" android:text="1" />
            <TextView
                android: layout_width="wrap_content"
                android: ayout_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" />
                android: layout width="wrap content"
                android: layout height="wrap content"
                android: ayout weight="1" android:text="Mumbai"
                />
        </TableRow>
         <TableRow android:background="#DAE8FC" android:padding="5dp">
            <TextView
                android: ayout width="wrap content"
                android: ayout_height="wrap_content"
                android:layout_weight="1" android:text="3" />
            <TextView
                android: layout_width="wrap_content"
                android: ayout_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>
   MainActivity.java=>
                                com.example.tl;
 package
 import and roid x. app compat. app. App Compat Activity;
 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"</pre>
     package="com.example.tl">
<application android:allowBackup="true" android:icon="@mipmap/ic_launcher"</pre>
          android: abe = "Table Layout"
          android:roundlcon="@mipmap/ic_launcher_round"
          android:supportsRt[="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=>
           er\Desktop\Android\TL] - ...\app\src\main\AndroidManifest.xml [app] - Android Studio
 <u>File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help</u>
                                                                       TL > III app > III src > III main > # AndroidManifest.xml

♠ Android ▼

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    app
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     ▼ ■ manifests
       AndroidManifest.xml
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     ► No java (generated)
       res (generated)
   Gradle Scripts
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 A.
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 別 Layout Captures
                                                                              roid.intent.action.MAIN" />
                                                                         0
                                                                              droid.intent.category.LAUNCHER" />
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 II. Z: Structure
                                                                         0
                                                                         Build: Build Output × Sync
    ▶ 4: Run ≡ 6: Logcat ≔ TODO ☑ Terminal ≺ Build ⊘ Profiler
    Install successfully finished in 1 s 938 ms. (3 minutes ago)
                                            e
```

```
3. Create an android app to implement table layout and button click eventStep 1:
   activity_main.xml=>
 <?xml version="1.0" encoding="utf-8"?>
 <androidx.constraintlayout.widget.ConstraintLayout</pre>
 xm[ns: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"</pre>
        android: layout height="match parent"
         tools: layout editor absoluteX="1dp"
        tools: layout_editor_absoluteY="1dp"
        android:weightSum="1">
        <Tab leRow
android: ayout_width="match_parent"android: ayout_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>
        <Tab leRow
            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"/>
                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: ayout_weight=".33" android:text="3"
                android:onClick="onClick"/>
        </TableRow>
        <Tab leRow
            android: Layout_width="match_parent"
            android: layout height="0dp"
            android: ayout_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"</pre>
     package="com.example.tl2">
     <application android:allowBackup="true"</pre>
         android:icon="@mipmap/ic_launcher"
         android: abe = "Table Layout with event handling"
         android:roundlcon="@mipmap/ic_launcher_round"
         android:supportsRtl="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>
                    Edit View Navigate Code Analyze Refactor Build Run Iools VCS Window Help
                                                                         Output=>
                                      0 - 0
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                                                               40
                                                               0
                                                               0
                                                               0
```

## 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</pre>
 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"</pre>
        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"</pre>
     package="com.example.prime_no">
     <application android:allowBackup="true"</pre>
         android:icon="@mipmap/ic_launcher"
         android: label="@string/app_name"
         android:roundlcon="@mipmap/ic_launcher_round"
         android:supportsRtl="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>
              🖳 Prime_no 🕽 🔤 app 🤇 🖿 src 🤇 🖿 main 🕽 🏭 AndroidManifest.xml
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```

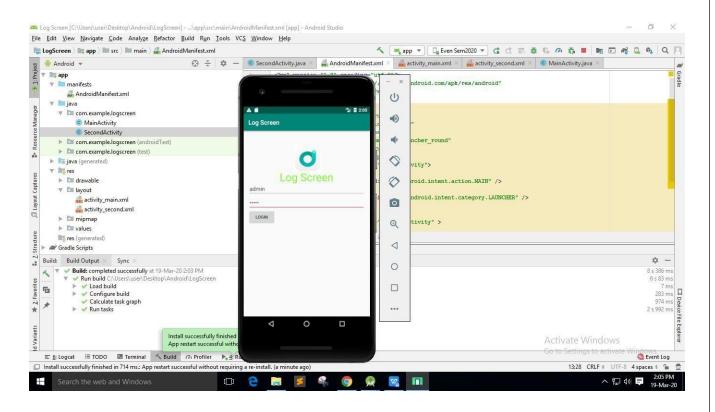
5. Create an android app that will check wheater given username and password matches with the predefined username and password.

Step 1:
activity\_main.xml=>

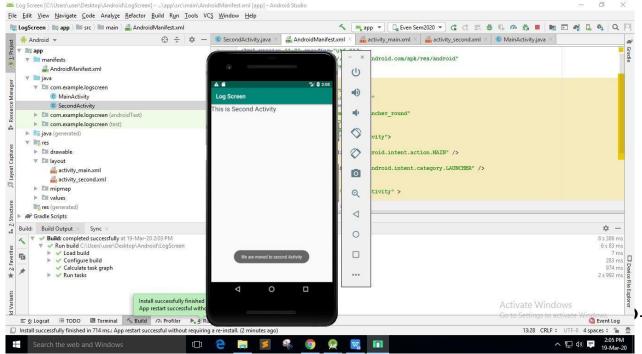
```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android: layout_width="match_parent" android: layout_height="match_parent"
   tools:context=".MainActivity">
   <RelativeLayout android:layout_width="match_parent"</pre>
       android: ayout_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" >
       <!mageView</pre>
           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/lg"
           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" />
       <FditText
           android: ayout_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: ayout_width="wrap_content"
           android: layout_height="wrap_content"
           android:inputType="textPassword" android:ems="10"
           android:id="@+id/editText2"
           android: layout_below="@+id/editText"
           android: ayout_alignParentLeft="true"
           android: ayout_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=>
 packagecom.example.logscreen;
 importandroidx.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"</pre>
     xmlns:tools="http://schemas.android.com/tools" android:orientation="vertical"
     android: ayout_width="match_parent" android: ayout_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"
         android:layout_centerHorizontal="true" />
</LinearLayout>
    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"</pre>
    package="com_example.logscreen">
    <application android:allowBackup="true"</pre>
        android:icon="@mipmap/ic_launcher'
        android: label="@string/app_name"
        android:roundlcon="@mipmap/ic launcher round"
        android:supportsRt[="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-

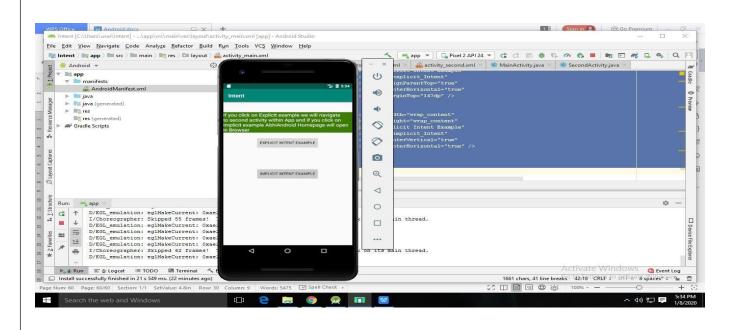


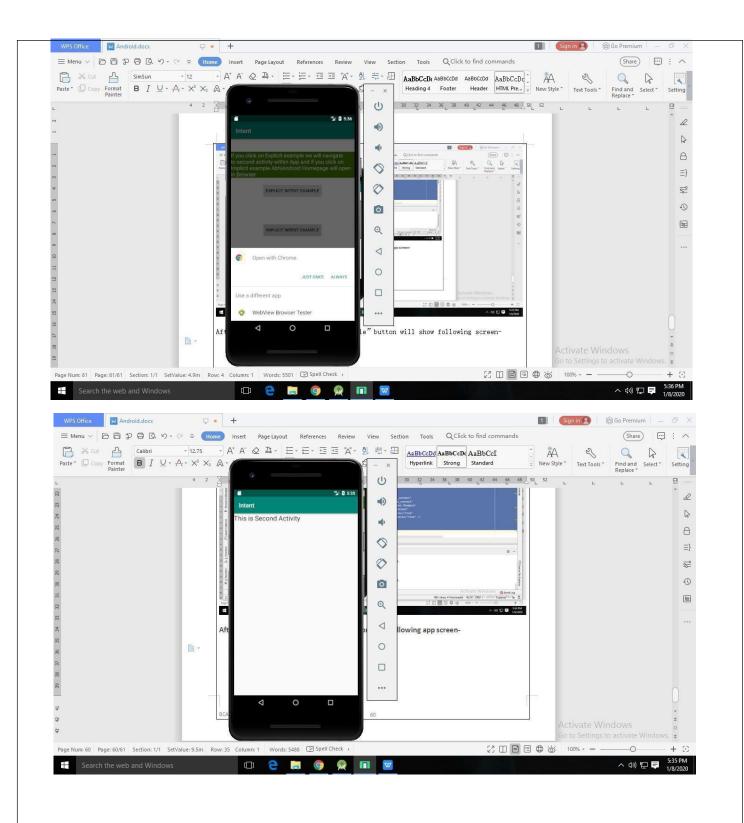
```
Step 1:
Let's design the UI of activity_main.xml:
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools" android:layout width="match 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"
           android:text="If you click on Explicit example we will navigate to second activitywithin App and
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: ayout 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: ayout centerHorizonta = "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"</pre>
     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"
Implement on Click event for Implicit And Explicit Button inside Main Activity. java:
package
                        com.example.intent;
 importandroidx.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) findViewByld(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(getBaseContext(), SecondActivity.class);startActivity(intent);
         });
         //implement on Click event for Implicit Intent
         implicit_btn.setOnClickListener(new View.OnClickListener() {@Override
public void onClick(View v) {
         });
         //implement on Click 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 xm[ns:android="http://schemas.android.com/apk/res/android"</pre>
   package="com.example.intent">
    <application android:allowBackup="true"</pre>
       android:icon="@mipmap/ic_launcher"
       android: label="@string/app name"
       android:roundlcon="@mipmap/ic_launcher_round"
       android:supportsRt[="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.xm =>
 <?xml version="1.0" encoding="utf-8"?>
 <androidx.constraintlayout.widget.ConstraintLayout</pre>
 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"</pre>
         android: layout height="match parent"
         android: <a href="marginBottom="16dp" android: layout_marginBottom="16dp"</a>
         android:weightSum="1"
         app: layout_constraintBottom_toBottomOf="parent"
         app: layout_constraintTop_toTopOf="parent"
         app: layout constraintLeft toLeftOf="parent">
         <Tab leRow
android: ayout_width="match_parent"android: ayout_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>
         <Tab I eRow
android: layout_width="match_parent"android: layout_height="0dp"
android: ayout_weight=".20" android:orientation="horizontal"
android:weightSum="1">
<Button
android:id="@+id/button0" android:layout_width="0dp"
android: ayout height="match parent" android: ayout 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_weight=".20" android:text="4"
                android:textSize="22dp"
                android:textColor="#000000"
                android:onClick="onClick"/>
         </TableRow>
        <Tab leRow
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: [ayout_width="0dp"
                android: ayout_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: ayout_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>
        <Tab le Row
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: ayout_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: ayout_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: ayout_weight=".20" android:text="/"
                android:textSize="22dp"
                android:textColor="#000000"
                android:onClick="onClick"/>
<Rutton
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>
        <Tab LeRow
android: layout_width="match_parent"android: layout_height="0dp"
android: ayout 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_p/us);
                operator=""+b.getText();
            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
                u/t); 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"</pre>
              android:icon="@drawable/calculatorlogo"
              android: labe = "@string/app name"
             android:roundlcon="@mipmap/ic launcher round"
              android:supportsRtl="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=>
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