

**DWARAKA DOSS GOVERDHAN DOSS
VAISHNAV COLLEGE(AUTONOMOUS), ARUMBakkAM,
CHENNAI-106**



**PG AND RESEARCH DEPARTMENT OF MASTER OF
COMPUTER APPLICATIONS (M.C.A.)**

SEMESTER II: MOBILE APPLICATION DEVELOPMENT LAB

NAME :

REGISTER NUMBER :

CLASS :

**DWARAKA DOSS GOVERDHAN DOSS VAISHNAV
COLLEGE(AUTONOMOUS), ARUMBakkAM, CHENNAI-106**



**PG AND RESEARCH DEPARTMENT OF MASTER OF
COMPUTER APPLICATIONS (M.C.A.)**

SEMESTER II: MOBILE APPLICATION DEVELOPMENT LAB

Certified that this is a record work done by _____

whose Register No.: _____ of I M.C.A., during the academic year 2021-2022.

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EX.NO: 1
DATE: 01.03.2022

LIFE ACTIVITY

AIM:

To implement life activity by using Android studio.

DESIGN VIEW



ACTIVITY_MAIN.XML:

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.co
m/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:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

MAINACTIVITY.JAVA:

```
import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
public class MainActivity extends Activity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Log.d("Activity", "onCreate Method");
    }
    @Override
    public void onStart()
    {
        super.onStart();
        Log.d("Activity", "onStart Method");
    }
    public void onResume()
    {
        super.onResume();
        Log.d("Activity", "onResume Method");
    }
    public void onPause()
    {
        super.onPause(); Log.d("Activity", "onPause
        Method");
    }
    public void onStop()
    {
        super.onStop();
        Log.d("Activity", "onStop Method");
    }
    public void onRestart()
    {
        super.onRestart();
        Log.d("Activity", "onRestart Method");
    }
    public void onDestroy()
    {
        super.onDes
        Log.d("Activity", "onDestroy Method");
    }
}
```

OUTPUT:

```
* D/dalvikvm: Debugger has detached; object registry had 0 entries
D/Activity: onCreate Method
    onStart Method
    onResume Method
D/: HostConnection::get() New Host Connection established 0xb942f3d0, tid 6692
D/EGL_emulation: eglCreateContext: 0xb9431080: maj 3 min 1 rcv 4
D/EGL_emulation: eglGetCurrent: 0xb9431080: ver 3 1
E/eglCodecCommon: glUtilsParamSize: unknow param 0x0000082da
E/eglCodecCommon: glUtilsParamSize: unknow param 0x000008cdf
    glUtilsParamSize: unknow param 0x000008824
E/EGL_emulation: tid 6692: eglSurfaceAttrib(1199): error 0x3009 (EGL_BAD_MATCH)
W/HardwareRenderer: Backbuffer cannot be preserved
D/OpenGLRenderer: Enabling debug mode 0
D/Activity: onPause Method
D/Activity: onStop Method
D/EGL_emulation: eglGetCurrent: 0xb9431080: ver 3 1
D/EGL_emulation: eglGetCurrent: 0xb9431080: ver 3 1
D/Activity: onRestart Method
D/Activity: onStart Method
    onResume Method
D/EGL_emulation: eglGetCurrent: 0xb9431080: ver 3 1
E/EGL_emulation: tid 6692: eglSurfaceAttrib(1199): error 0x3009 (EGL_BAD_MATCH)
W/HardwareRenderer: Backbuffer cannot be preserved
D/Activity: onPause Method
D/Activity: onStop Method
D/EGL_emulation: eglGetCurrent: 0xb9431080: ver 3 1
Process 6692 terminated.
```

RESULT:

The required output has been obtained and verified.

EX.NO:2

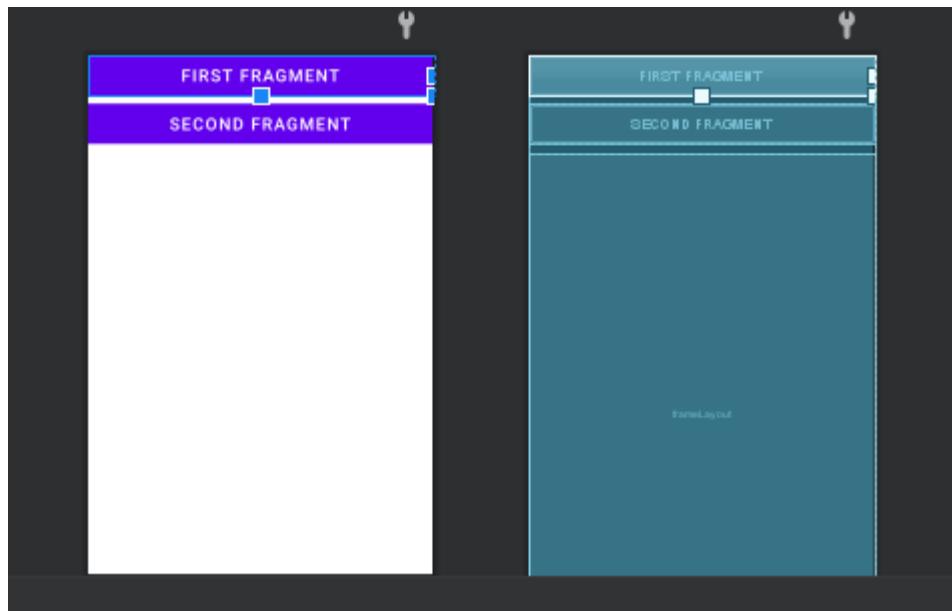
DATE:01.03.2022

FRAGMENTS

AIM:

To implement fragments by using Android Studio.

DESIGN VIEW



ACTIVITY MAIN.XML

```
<LinearLayout 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:orientation="vertical"  
    tools:context=".MainActivity">  
    <!-- display two Button's and a FrameLayout to replace the Fragment's -->
```

```
<Button  
    android:id="@+id/firstFragment"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:background="@color/button_background_color"  
    android:text="First Fragment"  
    android:textColor="@color/white"  
    android:textSize="20sp" />
```

```
<Button  
    android:id="@+id/secondFragment"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="10dp"
```

```
        android:background="@color/button_background_color"
        android:text="Second Fragment"
        android:textColor="@color/white"
        android:textSize="20sp" />

<FrameLayout
    android:id="@+id/frameLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="10dp" />
</LinearLayout>
```

MAIN ACTIVITY.JAVA

```
package com.example.a2;
import android.app.Fragment;
import android.app.FragmentManager;
import android.app.FragmentTransaction;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.appcompat.app.AppCompatActivity;

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

        // get the reference of Button's
        firstFragment = (Button) findViewById(R.id.firstFragment);
        secondFragment = (Button) findViewById(R.id.secondFragment);

        // perform setOnClickListener event on First Button
        firstFragment.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                // load First Fragment
                loadFragment(new FirstFragment());
            }
        });

        // perform setOnClickListener event on Second Button
        secondFragment.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                // load Second Fragment
                loadFragment(new SecondFragment());
            }
        });
    }

    private void loadFragment(Fragment fragment)
    {
        FragmentManager fragmentManager = getFragmentManager();
        FragmentTransaction transaction = fragmentManager.beginTransaction();
        transaction.replace(R.id.frameLayout, fragment);
        transaction.commit();
    }
}
```

```

}

private void loadFragment(Fragment fragment)
{
    // create a FragmentManager
    FragmentManager fm = getFragmentManager();

    // create a FragmentTransaction to begin the transaction and replace the Fragment
    FragmentTransaction fragmentTransaction = fm.beginTransaction();

    // replace the FrameLayout with new Fragment
    fragmentTransaction.replace(R.id.frameLayout, fragment);
    fragmentTransaction.commit();           // save the changes
}
}

```

FRAGMENT1.JAVA

```

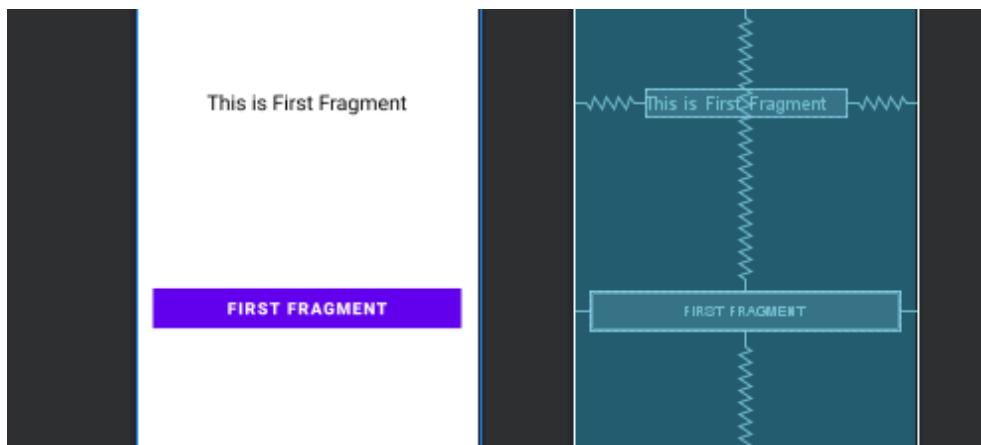
package com.example.a2;
import android.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;
public class FirstFragment extends Fragment
{
    View view;
    Button firstButton;
    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState)
    {
        // Inflate the layout for this fragment
        view = inflater.inflate(R.layout.fragment_first, container, false);

        // get the reference of Button
        firstButton = (Button)view.findViewById(R.id.firstButton);

        // perform setOnClickListener on first Button
        firstButton.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                // display a message by using a Toast
                Toast.makeText(getActivity(), "First Fragment", Toast.LENGTH_LONG).show();
            }
        });
        return view;
    }
}

```

FRAGMENT1.XML



FRAGMENT2.JAVA

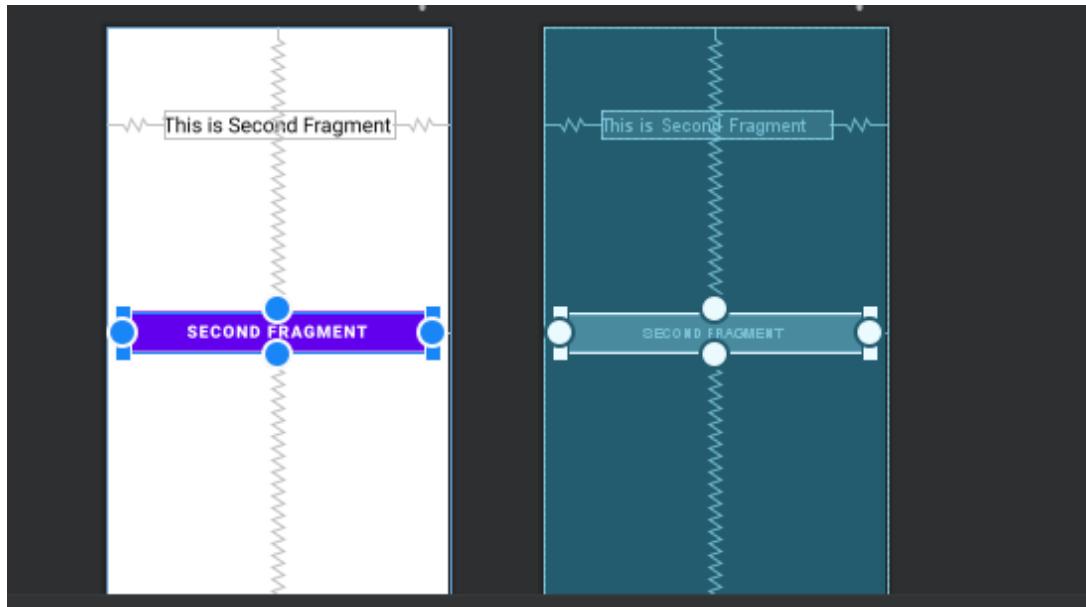
```
package com.example.a2;
import android.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;
public class SecondFragment extends Fragment
{
    View view;
    Button secondButton;

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle
                           savedInstanceState)
    {
        // Inflate the layout for this fragment
        view = inflater.inflate(R.layout.fragment_second, container, false);

        // get the reference of Button
        secondButton = (Button) view.findViewById(R.id.secondButton);

        // perform setOnClickListener on second Button
        secondButton.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                // display a message by using a Toast
                Toast.makeText(getActivity(), "Second Fragment", Toast.LENGTH_LONG).show();
            }
        });
        return view;
    }
}
```

FRAGMENT2.XML



ANDROID MANIFEST.XML

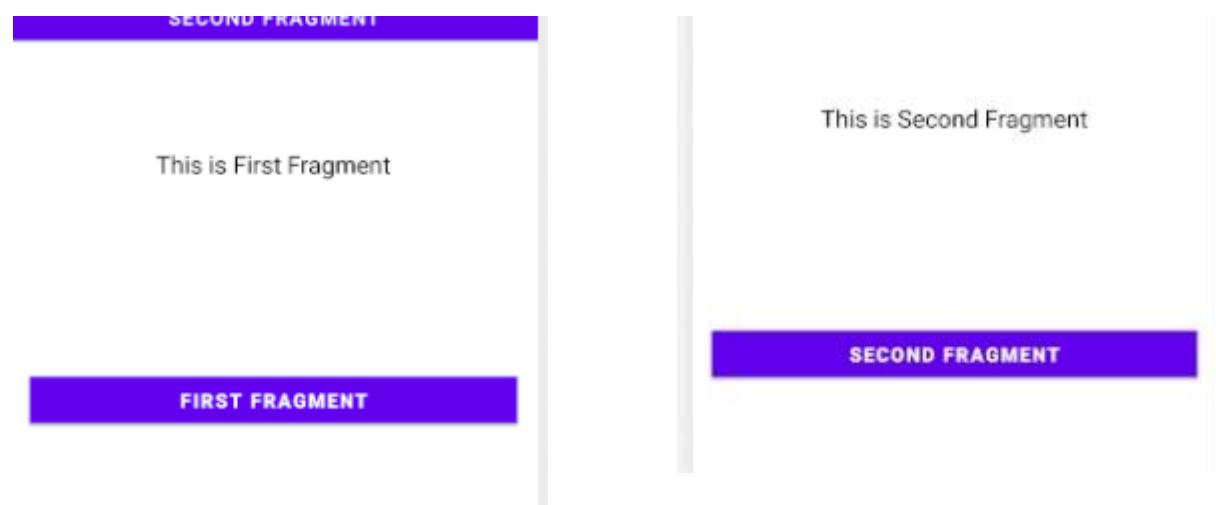
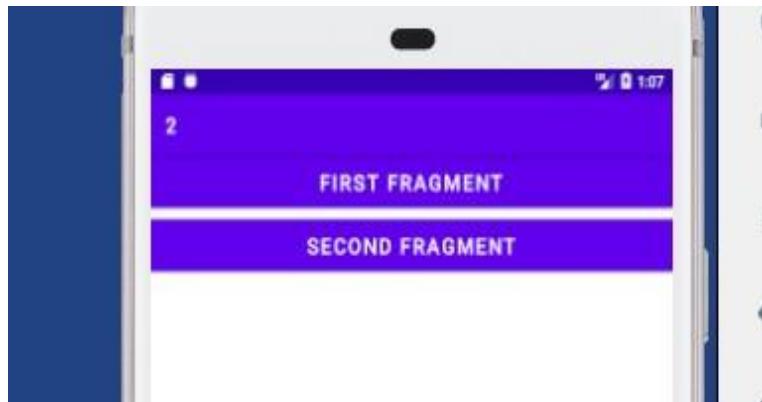
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.a2">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.2">
        <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>
```

COLORS.XML

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="green">#0f0</color>
    <color name="button_background_color">#925</color>
</resources>
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

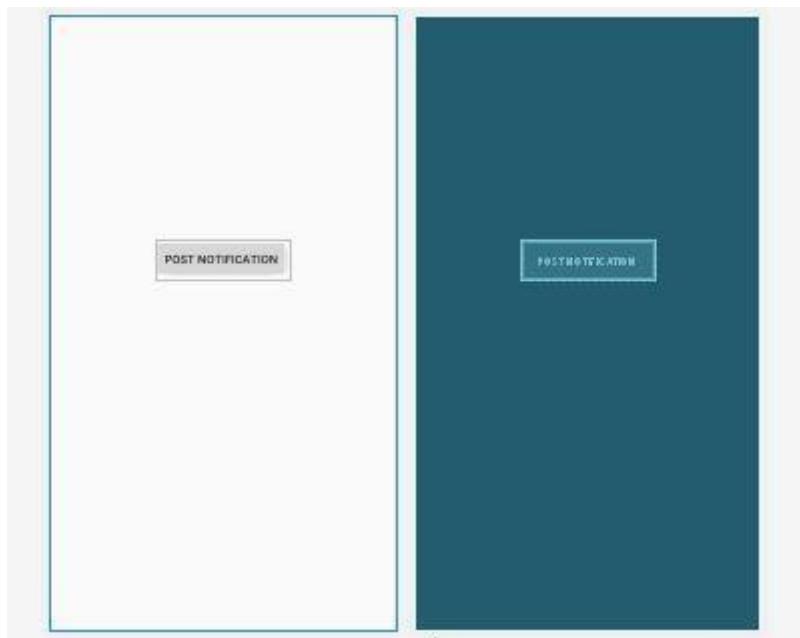
EX.NO: 3
DATE:02.03.2022

NOTIFICATION

AIM:

To implement notifications by using android studio.

DESIGN VIEW



ACTIVITY_MAIN.XML

```
<?xml
version="1.0"
encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.c
om/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">

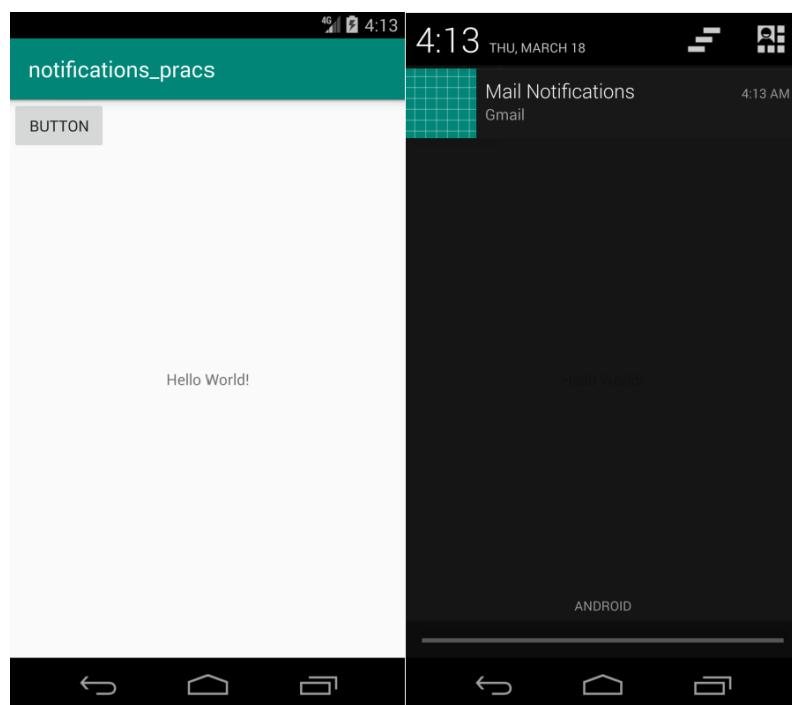
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="HelloWorld!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>
```

```
<Button  
    android:id="@+id/button"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:onClick="call"  
    android:text="Button"  
    tools:layout_editor_absoluteX="159dp"  
    tools:layout_editor_absoluteY="255dp"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

MAINACTIVITY.JAVA

```
package com.example.notify;  
import androidx.appcompat.app.AppCompatActivity; import  
        android.app.Notification;  
import android.app.NotificationManager;  
import android.app.PendingIntent;  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
public class MainActivity extends AppCompatActivity  
{  
    Button b;  
    @Override  
    protected void onCreate(Bundle savedInstanceState)  
    {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        b=(Button)findViewById(R.id.button);  
    }  
    public void call(View v)  
    {  
        //Prepare intent which is triggered if the notification is selected  
        Intent intent = new Intent(this, SubActivity.class);  
        PendingIntent pIntent=PendingIntent.getActivity(this,(int)  
        System.currentTimeMillis(),intent,0);  
        Notification n = new Notification.Builder(this)  
            .setContentTitle("Mail Notifications")  
            .setContentText("Gmail")  
            .setSmallIcon(R.drawable.ic_launcher_background)  
            .setContentIntent(pIntent).build();  
        NotificationManager nm = (NotificationManager)  
            getSystemService(NOTIFICATION_SERVICE);  
        n.flags=Notification.FLAG_AUTO_CANCEL; //Hide the notification after selection  
        nm.notify(0, n);  
    }  
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

EX.NO: 4
DATE:02.03.2022

SCREEN ORIENTATION

AIM:

To implement screen orientation by using android studio.

DESIGN VIEW



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">

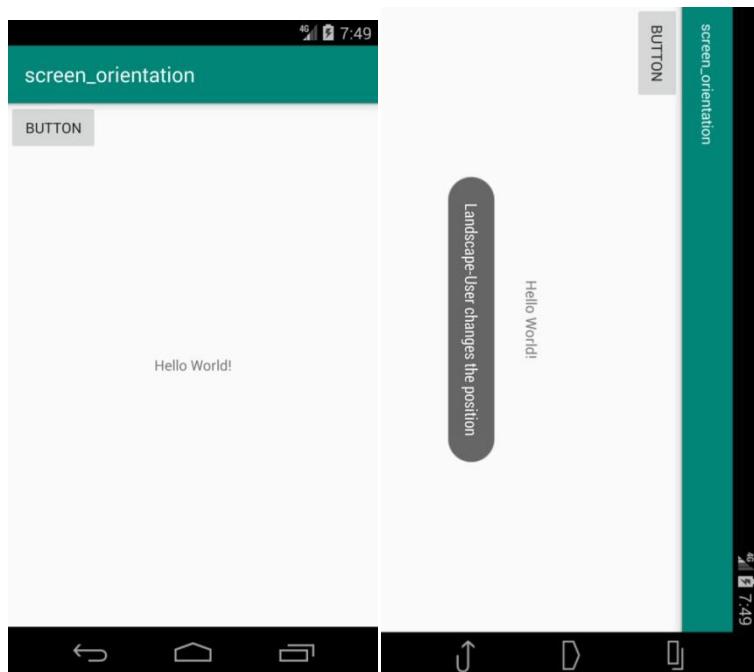
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
```

```
<Button  
    android:id="@+id/button"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:onClick="onClick"  
    android:text="Button"  
    tools:layout_editor_absoluteX="157dp"  
    tools:layout_editor_absoluteY="203dp" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

MAINACTIVITY.JAVA:

```
package com.example.orientation;  
import androidx.appcompat.app.AppCompatActivity;  
import android.content.pm.ActivityInfo;  
import android.os.Bundle; import  
    android.view.View; import  
    android.widget.Toast;  
public class MainActivity extends AppCompatActivity  
{  
    @Override  
    protected void onCreate(Bundle savedInstanceState)  
    {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        if (getResources().getDisplayMetrics().widthPixels >  
            getResources().getDisplayMetrics().heightPixels)  
            Toast.makeText(this, "Landscape-User changes the position",  
                Toast.LENGTH_LONG).show();  
        else  
            Toast.makeText(this, "Portrait-User changes the position",  
                Toast.LENGTH_LONG).show();  
    }  
  
    public void onClick(View v)  
    {  
        if (v.getId() == R.id.button)  
            setRequestedOrientation(ActivityInfo.SCREEN_ORIENTATION_LANDSCAPE);  
        else  
            setRequestedOrientation(ActivityInfo.SCREEN_ORIENTATION_PORTRAIT);  
    }  
}
```

OUTPUT



RESULT:

The required output has been obtained and verified.

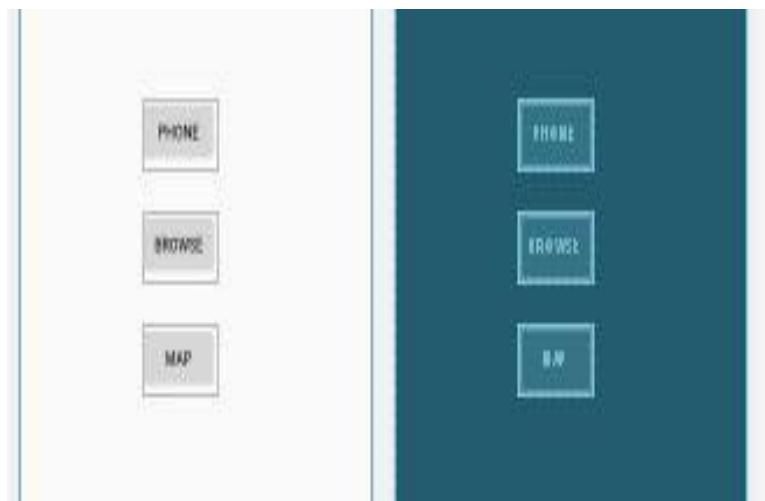
EX.NO: 5
DATE:03.03.2022

IMPLICIT AND EXPLICIT INTENT

AIM:

To implement implicit and explicit intent by using Android Studio.

DESIGN VIEW:



ANDROIDMANIFEST.XML:

```
<uses-permission android:name="android.permission.CALL_PHONE"/>
```

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">

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="browse"
        android:text="Browse"
        app:layout_constraintBottom_toBottomOf="parent"
```

```

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.433"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.499" />

    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="201dp"
        android:onClick="phone"
        android:text="Phone"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.433"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.529" />

    <Button
        android:id="@+id/button4"
        android:layout_width="95dp"
        android:layout_height="47dp"
        android:layout_marginStart="143dp"
        android:layout_marginEnd="180dp"
        android:layout_marginBottom="323dp"
        android:onClick="map"
        android:text="Map"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAIN ACTIVITY.JAVA

```

package com.example.intents;
import android.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity
{
    Button b, b2;
    @Override

```

```

protected voidon Create(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    b1=(Button)findViewById(R.id.button);
    b2=(Button)findViewById( R.id.button2);
}
public void explicit(View v)
{
Intent intent = new Intent(this, SecondActivity.class);
startActivity(intent);
}
public void browse(View v)
{
    Intent intent = new Intent(Intent.ACTION_VIEW,
                               Uri.parse("https://www.google.com"));
    startActivity(intent);
}
public void phone(View v)
{
Intent i = new
Intent(Intent.ACTION_CALL);i.setData(Uri.parse("tel:0377778888"));
startActivity(i);
}
public void map(View v)
{
    Intent i = new Intent(android.content.Intent.ACTION_VIEW,
                           Uri.parse("geo:8.491172,76.943897"));
    startActivity(i);
}
}

```

NOTE:Place a textview

SECONDACTIVITY.JAVA:

```

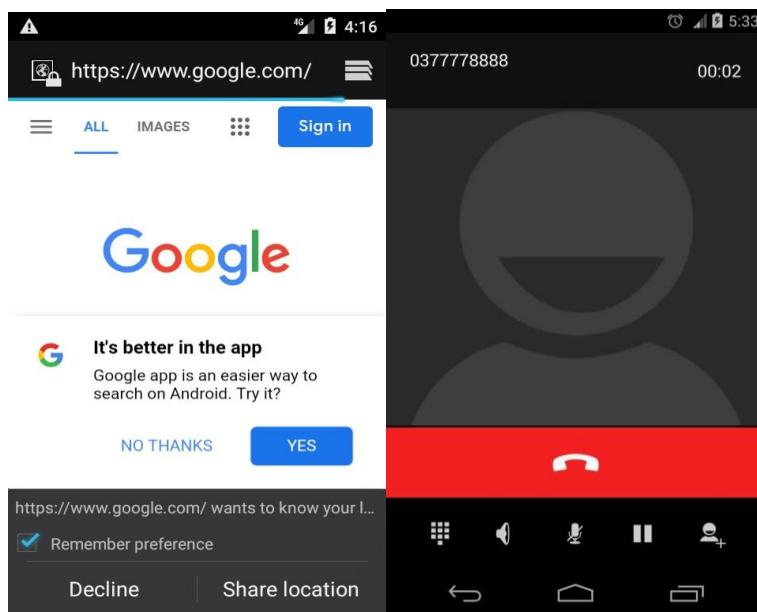
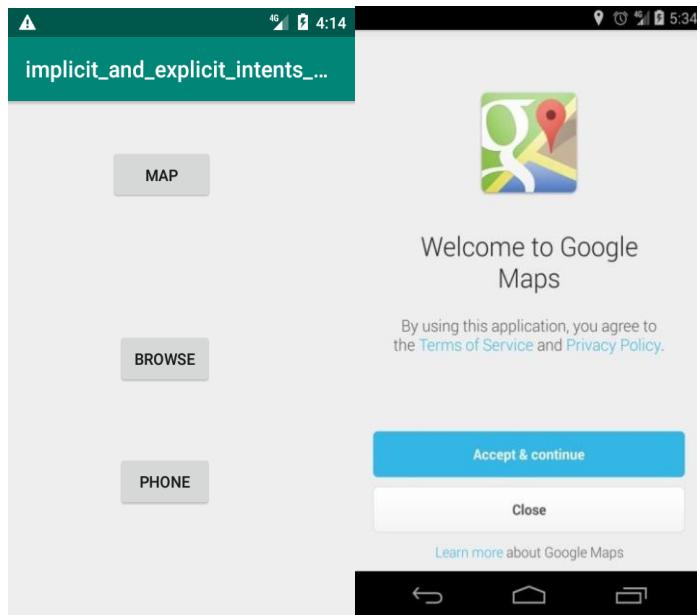
packagecom.example.intents;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public classSecondActivity extends AppCompatActivity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);setContentView(R.layout.

```

```
        activity_second);  
    }  
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

EX.NO: 6
DATE:03.03.2022

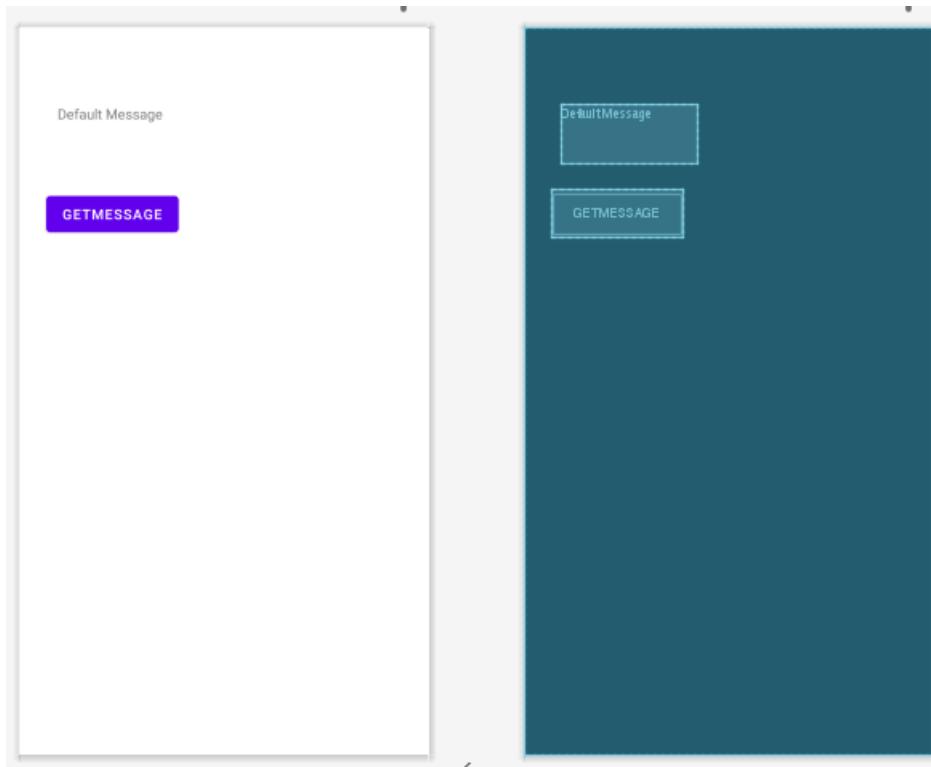
INTENT RETURNING RESULT

AIM:

To implement intent returning result by using Android Studio.

DESIGN VIEW:

ACTIVITY1DESIGN:



ACTIVITY1XML:

```
<?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/textView1"
```

```

        android:layout_width="138dp"
        android:layout_height="61dp"
        android:layout_alignLeft="@+id/button1"
        android:layout_alignParentTop="true"
        android:layout_marginStart="37dp"
        android:layout_marginTop="76dp"
        android:layout_marginEnd="236dp"
        android:text="Default Message"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView1"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="26dp"
        android:layout_marginTop="26dp"
        android:text="GetMessage"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView1" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAINACTIVITY.JAVA:

```

package com.example.anew;

import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends Activity
{
    TextView textView1;
    Button button1;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        textView1=(TextView)findViewById(R.id.textView1);
        button1=(Button)findViewById(R.id.button1);

```

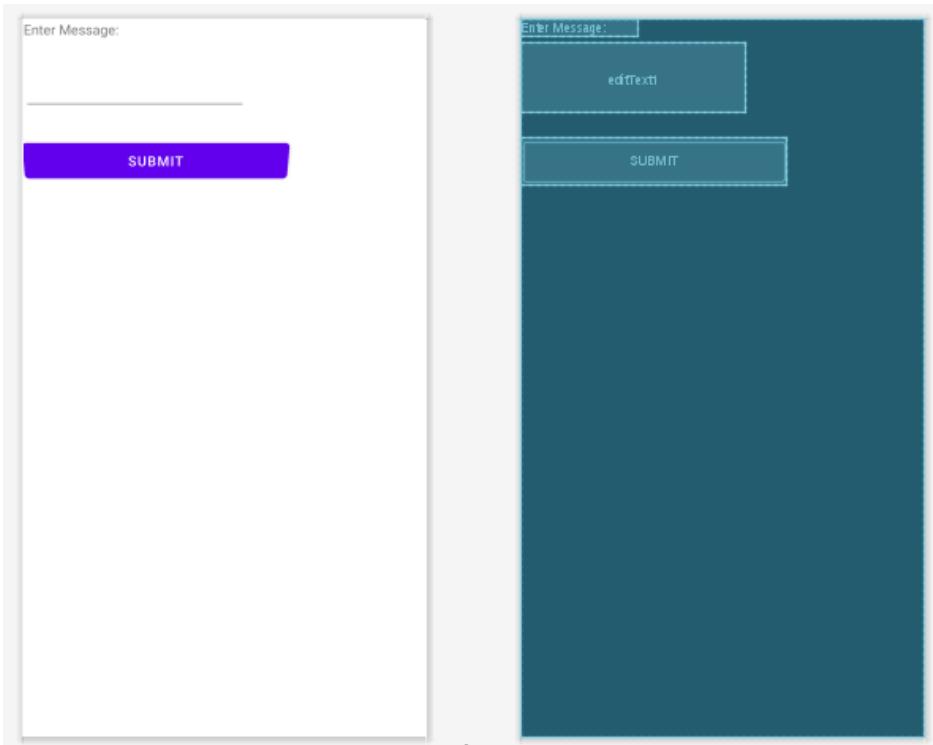
```

button1.setOnClickListener(new OnClickListener()
{
    @Override
    public void onClick(View arg0)
    {
        Intent intent=new Intent(MainActivity.this,MainActivity2.class);
        startActivityForResult(intent, 2);
    }
});

@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data)
{
    super.onActivityResult(requestCode, resultCode, data);
    // check if the request code is same as what is passed here it is 2
    if(requestCode==2)
    {
        String message=data.getStringExtra("MESSAGE");
        textView1.setText(message);
    }
}
}

```

ACTIVITY2DESIGN:



ACTIVITY2.XML:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity2">

    <TextView
        android:id="@+id/textView1"
        android:layout_width="119dp"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/editText1"
        android:layout_alignBottom="@+id/editText1"
        android:layout_alignParentLeft="true"
        android:text="Enter Message:" />

    <EditText
        android:id="@+id/editText1"
        android:layout_width="227dp"
        android:layout_height="70dp"
        android:layout_alignParentTop="true"
        android:layout_marginTop="24dp"
        android:layout_toRightOf="@+id/textView1"
        android:ems="10" />

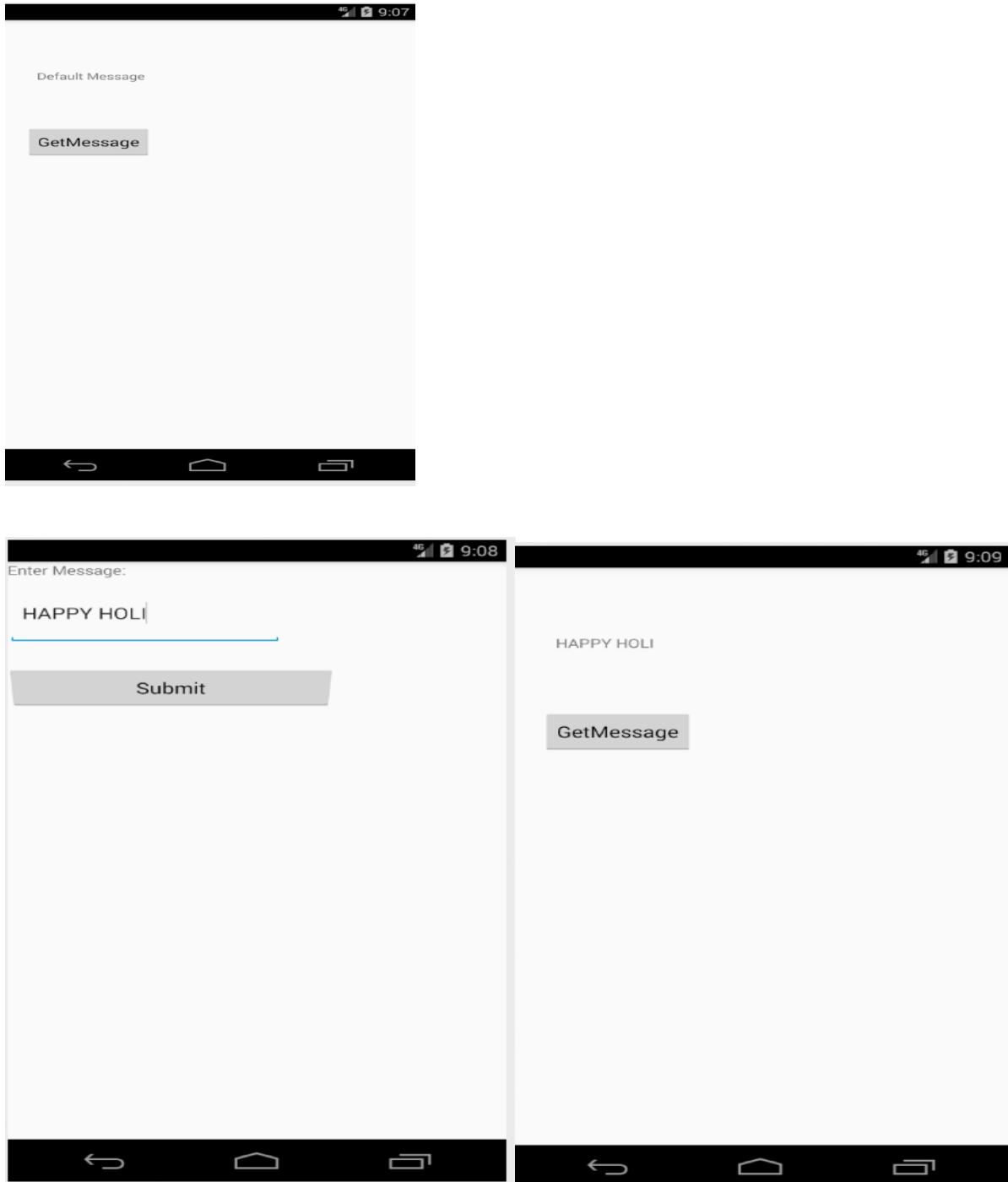
    <Button
        android:id="@+id/button1"
        android:layout_width="270dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/editText1"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="120dp"
        android:rotationX="-8"
        android:text="Submit" />
</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

MAINACTIVITY2.JAVA:

```
package com.example.anew;
import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.view.Menu;
```

```
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity2 extends Activity
{
    EditText editText1;
    Button button1;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        editText1=(EditText)findViewById(R.id.editText1);
        button1=(Button)findViewById(R.id.button1);
        button1.setOnClickListener(new OnClickListener()
        {
            @Override
            public void onClick(View arg0)
            {
                String message=editText1.getText().toString();
                Intent intent=new Intent();
                intent.putExtra("MESSAGE",message);
                setResult(2,intent);
                finish(); //finishing activity
            }
        });
    }
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

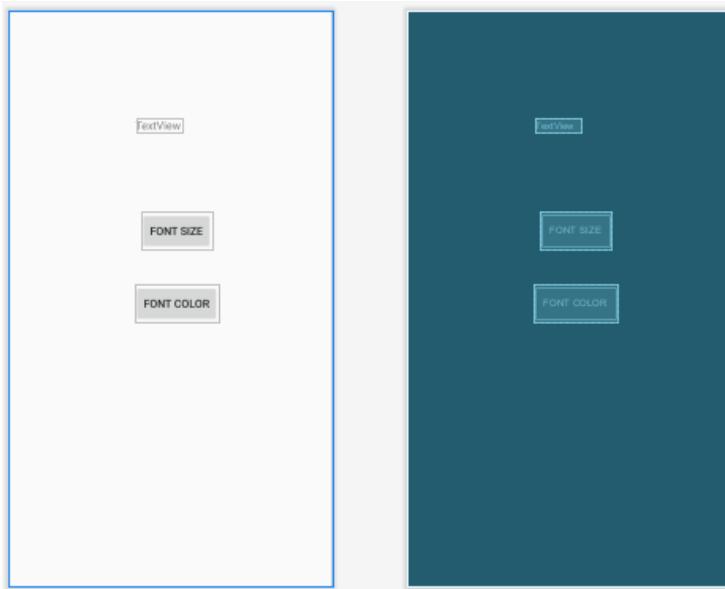
EX.NO: 7
DATE:04.03.2022

CHANGING THE FONT SIZE AND COLOR USING TEXTVIEW AND BUTTON

AIM:

To change the font size and color and implement it in Android Studio.

DESIGN VIEW:



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">

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="168dp"
        android:layout_marginTop="256dp"
        android:layout_marginEnd="151dp"
        android:text="Text View" />
```

```

        android:onClick="size"
        android:text="Font Size"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="168dp"
        android:layout_marginTop="348dp"
        android:layout_marginEnd="151dp"
        android:onClick="colour"
        android:text="Font Color"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="100dp"
        android:layout_marginEnd="130dp"
        android:text="TextView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        tools:layout_editor_absoluteY="136dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAINACTIVITY.JAVA

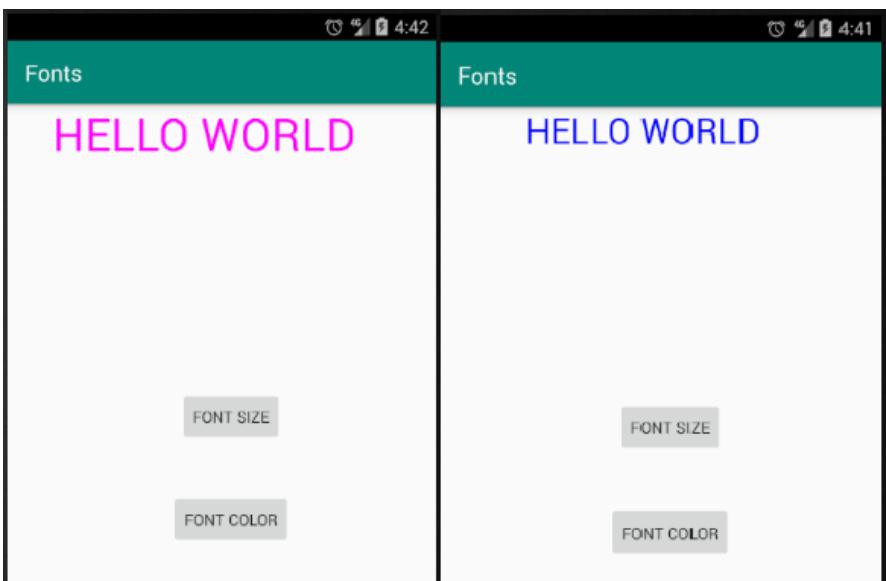
```

package com.example.fonts;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
import android.widget.Button;
import android.view.View;
import android.graphics.Color;
public class MainActivity extends AppCompatActivity
{
    TextView t;
    Button b1, b2;
    int s = 10, c = 1;
    @Override

```

```
protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    b1 = (Button) findViewById(R.id.button);
    b2 = (Button) findViewById(R.id.button2);
    t=(TextView)findViewById(R.id.textView);
}
public void size(View v)
{
    t.setTextSize(s);
    s += 10;
    if (s == 50)
        s = 10;
}
public void colour(View v)
{
    if (c == 7)
        c = 1;
    switch (c)
    {
        case 1: t.setTextColor(Color.RED);
                  break;
        case 2: t.setTextColor(Color.GREEN);
                  break;
        case 3: t.setTextColor(Color.BLUE);
                  break;
        case 4: t.setTextColor(Color.CYAN);
                  break;
        case 5: t.setTextColor(Color.YELLOW);
                  break;
        case 6: t.setTextColor(Color.MAGENTA);
                  break;
    }
    c++;
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

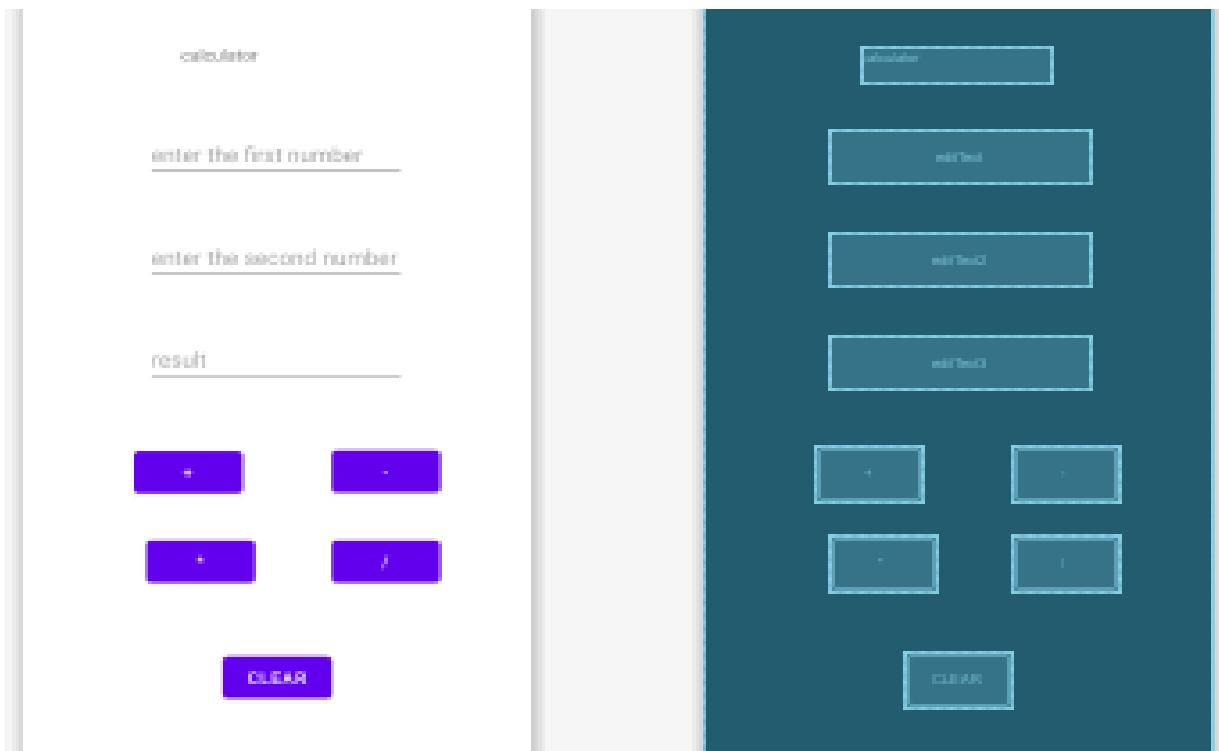
EX.NO: 8
DATE:04.03.2022

SIMPLE CALCULATOR USING EDITTEXT AND BUTTON

AIM:

To implement simple calculator by using Android Studio.

DESIGN VIEW:



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">
```

```
<TextView  
    android:id="@+id/textView"  
    android:layout_width="154dp"  
    android:layout_height="32dp"  
    android:text="calculator"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintHorizontal_bias="0.498"  
    app:layout_constraintLeft_toLeftOf="parent"  
    app:layout_constraintRight_toRightOf="parent"  
    app:layout_constraintTop_toTopOf="parent"  
    app:layout_constraintVertical_bias="0.097" />  
  
<EditText  
    android:id="@+id/editText"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:ems="10"  
    android:hint="enter the first number"  
    android:inputType="textPersonName"  
    app:layout_constraintBottom_toTopOf="@+id/editText2"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.497"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toTopOf="parent"  
    app:layout_constraintVertical_bias="0.761" />  
  
<EditText  
    android:id="@+id/editText2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:ems="10"  
    android:hint="enter the second number"  
    android:inputType="textPersonName"  
    app:layout_constraintBottom_toTopOf="@+id/editText3"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.497"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/textView"  
    app:layout_constraintVertical_bias="0.75" />  
  
<EditText  
    android:id="@+id/editText3"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:ems="10"  
    android:hint="result"  
    android:inputType="textPersonName"
```

```
app:layout_constraintBottom_toTopOf="@+id/button"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView"
app:layout_constraintVertical_bias="0.81" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="72dp"
    android:onClick="add"
    android:text="+"
    app:layout_constraintBottom_toTopOf="@+id/button3"
    app:layout_constraintEnd_toStartOf="@+id/button2"
    app:layout_constraintTop_toBottomOf="@+id/textView"
    app:layout_constraintVertical_bias="0.915" />

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="sub"
    android:text="-"
    app:layout_constraintBottom_toTopOf="@+id/button4"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.773"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText3"
    app:layout_constraintVertical_bias="0.627" />

<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="mul"
    android:text "*"
    app:layout_constraintBottom_toTopOf="@+id/button5"
    app:layout_constraintEnd_toStartOf="@+id/button4"
    app:layout_constraintHorizontal_bias="0.617"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.903" />
```

```

<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="div"
    android:text="/"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.773"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.726" />

<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="clear"
    android:text="clear"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.874" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

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.EditText;

public class MainActivity extends AppCompatActivity
{
    Button b1,b2,b3,b4,b5;
    EditText et1,et2,et3;
    float x,y,z;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=(Button)findViewById(R.id.button);

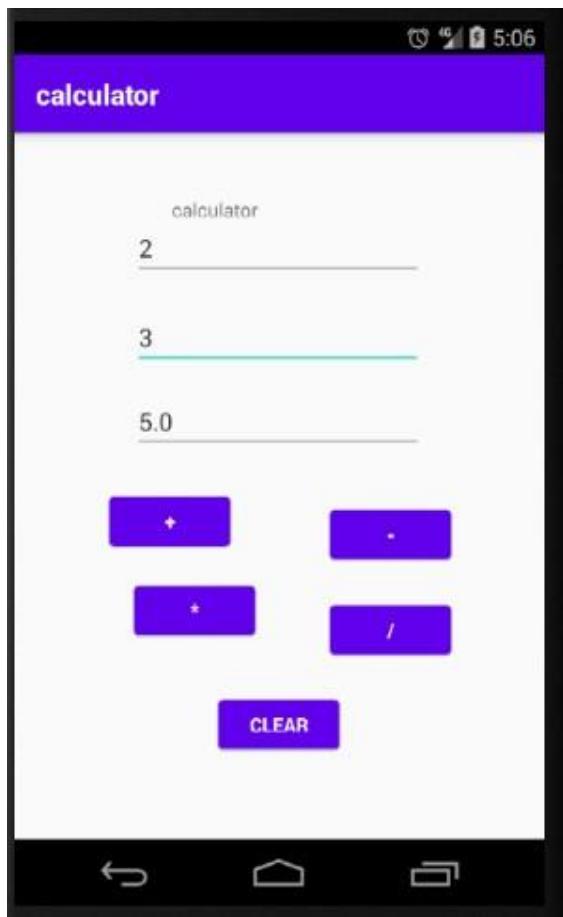
```

```

        b2=(Button)findViewById(R.id.button2);
        b3=(Button)findViewById(R.id.button3);
        b4=(Button)findViewById(R.id.button4);
        b5=(Button)findViewById(R.id.button5);
        et1=(EditText)findViewById(R.id.editText);
        et2=(EditText) findViewById(R.id.editText2);
        et3=(EditText) findViewById(R.id.editText3);
    }
    public void add(View v)
    {
        x=Float.valueOf(et1.getText().toString());
        y=Float.valueOf(et2.getText().toString());
        z=x+y;
        et3.setText(String.valueOf(z));
    }
    public void sub(View v)
    {
        x=Float.valueOf(et1.getText().toString());
        y=Float.valueOf(et2.getText().toString());
        z=x-y;
        et3.setText(String.valueOf(z));
    }
    public void mul(View v)
    {
        x=Float.valueOf(et1.getText().toString());
        y=Float.valueOf(et2.getText().toString());
        z=x*y;
        et3.setText(String.valueOf(z));
    }
    public void div(View v)
    {
        x=Float.valueOf(et1.getText().toString());
        y=Float.valueOf(et2.getText().toString());
        z=x/y;
        et3.setText(String.valueOf(z));
    }
    public void clear(View v)
    {
        et1.setText(" ");
        et2.setText(" ");
        et3.setText(" ");
        et1.requestFocus();
    }
}

```

OUTPUT:



RESULT:

The required output has been obtained and verified.

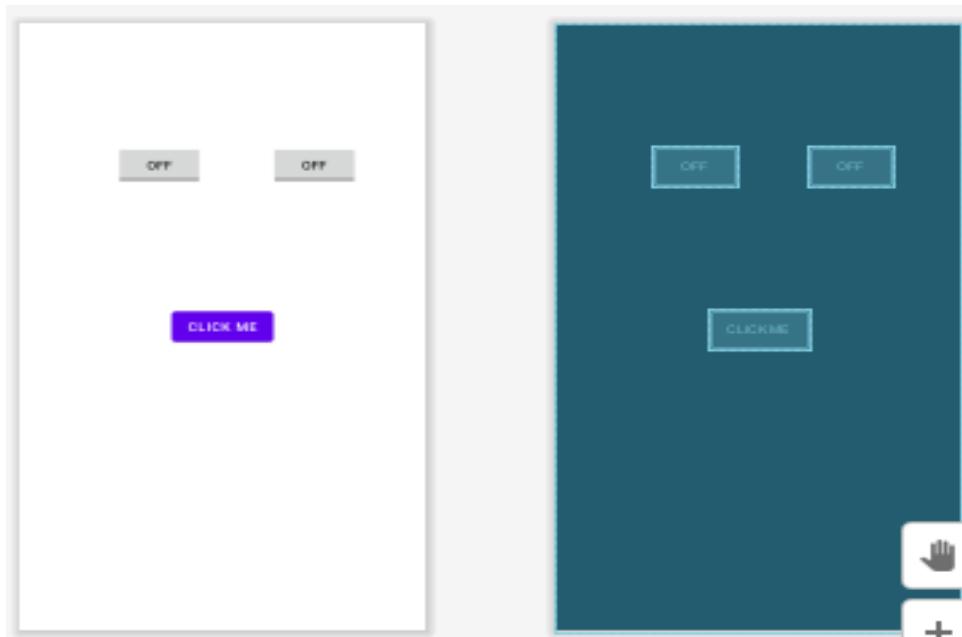
EX.NO: 9
DATE:05.03.2022

TOGGLE BUTTON

AIM:

To implement Toggle button by using Android Studio.

DESIGN VIEW



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">
```

```

<ToggleButton
    android:id="@+id/toggleButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="ToggleButton"
    app:layout_constraintBottom_toTopOf="@+id/button"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.303"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<ToggleButton
    android:id="@+id/toggleButton2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="ToggleButton"
    app:layout_constraintBottom_toTopOf="@+id/button"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/toggleButton"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="click"
    android:text="click me"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAINACTIVITY.JAVA

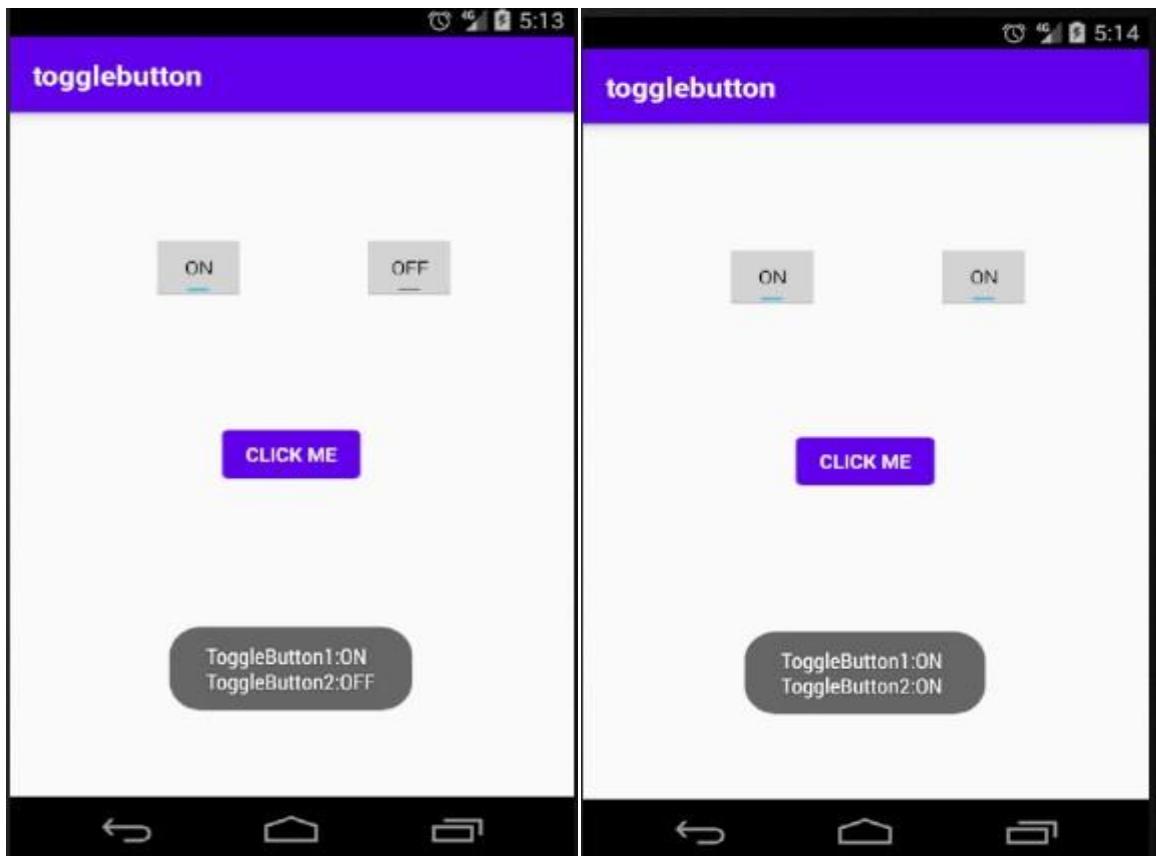
```

package com.example.togglebutton;
import androidx.appcompat.app.AppCompatActivity;
import android.widget.Button;
import android.widget.Toast;
import android.widget.ToggleButton;
import android.view.View;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity
{
    ToggleButton tb1,tb2;
    Button b;

```

```
@Override  
protected void onCreate(Bundle savedInstanceState)  
{  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    tb1=(ToggleButton)findViewById(R.id.toggleButton);  
    tb2=(ToggleButton)findViewById(R.id.toggleButton2);  
    b=(Button)findViewById(R.id.button);  
}  
public void click(View v)  
{  
    String status="ToggleButton1:"+tb1.getText()+"\n"+ "ToggleButton2:"+tb2.getText();  
    Toast.makeText(getApplicationContext(),status,Toast.LENGTH_SHORT).show();  
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

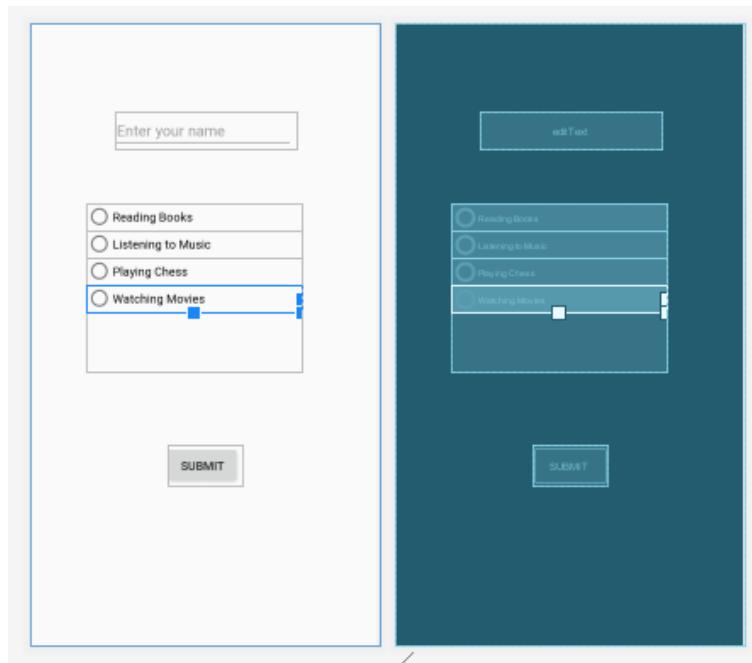
EX.NO: 10
DATE:05.03.2022

RADIO BUTTON AND RADIO GROUP

AIM:

To implement radio button and radio group by using Android Studio.

DESIGN VIEW



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">

    <EditText
        android:id="@+id/editText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter your name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/radioGroup"
        app:layout_constraintEnd_toEndOf="parent"
```

```
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.625" />

    <RadioGroup
        android:id="@+id/radioGroup"
        android:layout_width="251dp"
        android:layout_height="197dp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.418"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.706">

        <RadioButton
            android:id="@+id radioButton"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Reading books" />

        <RadioButton
            android:id="@+id radioButton2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Listening to Music" />

        <RadioButton
            android:id="@+id radioButton3"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Playing Chess" />

        <RadioButton
            android:id="@+id radioButton4"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Watching Movies" />

    </RadioGroup>

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="submit"
        android:text="submit"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.462"
        app:layout_constraintStart_toStartOf="parent"
```

```
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.696" />

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

MAINACTIVITY.JAVA

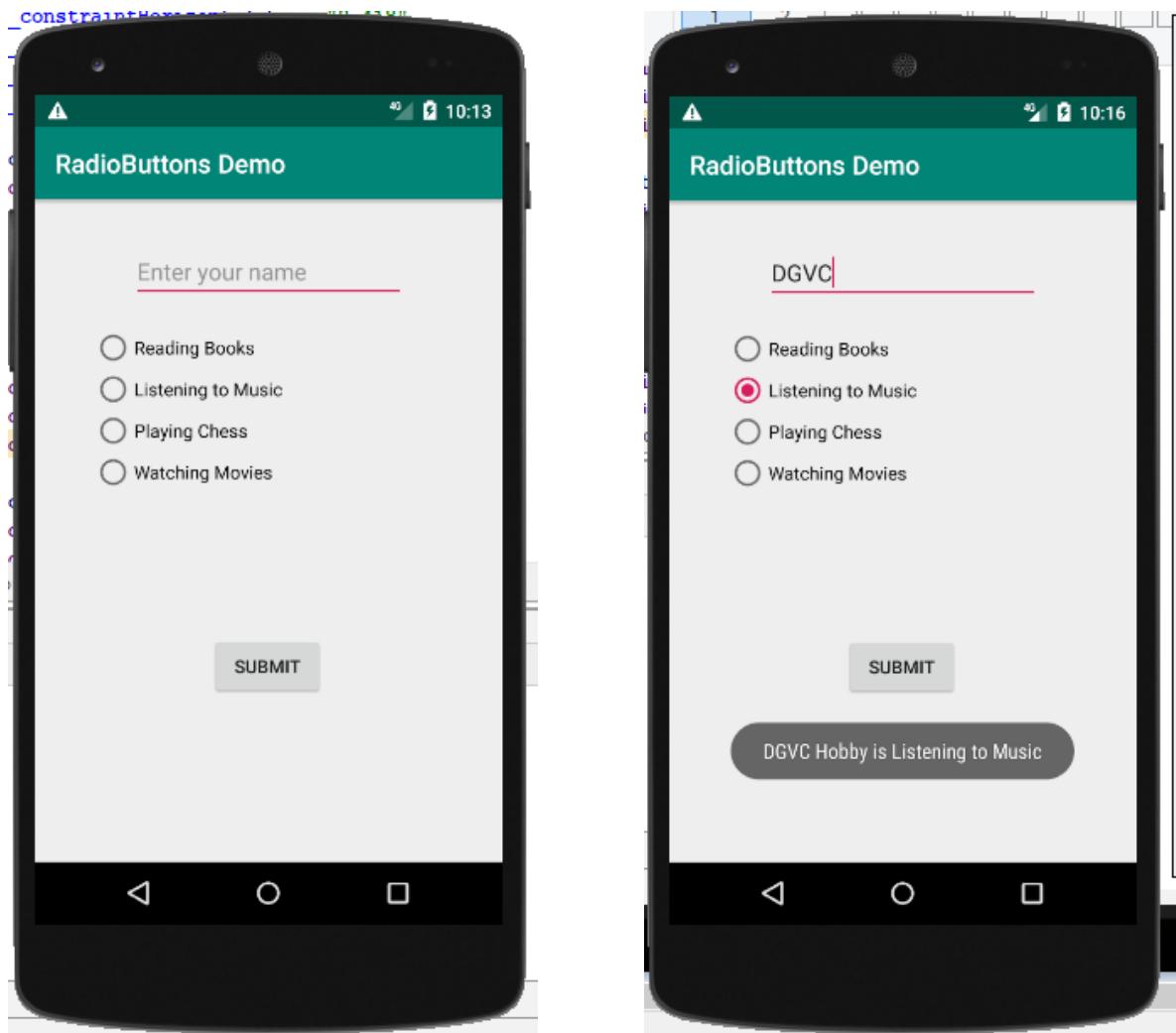
```
package com.example.radiobuttons;
import androidx.appcompat.app.AppCompatActivity;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Button;
import android.widget.RadioGroup;
import android.widget.Toast;
import android.view.View;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{
    RadioGroup rg;
    RadioButton rb;
    Button b;
    EditText et;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        rg=(RadioGroup)findViewById(R.id.radioGroup);
        et=(EditText)findViewById(R.id.editText);
    }

    public void submit(View v)
    {
        int id=rg.getCheckedRadioButtonId();
        String name=et.getText().toString();
        rb=(RadioButton)findViewById(id);
        Toast.makeText(getApplicationContext(),name+" Hobby is"
                +rb.getText(),Toast.LENGTH_LONG).show();
    }
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

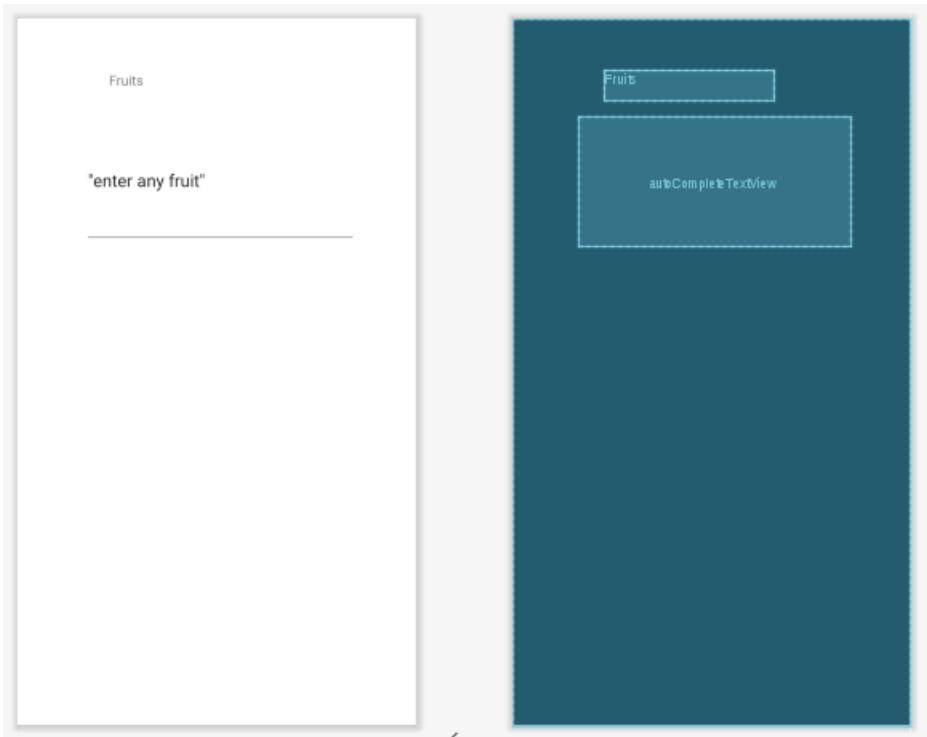
EX.NO: 11
DATE:08.03.2022

AUTOCOMPLETE TEXTVIEW

AIM:

To implement Auto Complete Text View using Android Studio.

DESIGN VIEW



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">
    <TextView
        android:id="@+id/textView"
        android:layout_width="176dp"
        android:layout_height="31dp"
```

```

        android:layout_marginStart="95dp"
        android:layout_marginTop="54dp"
        android:text="Fruits"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<AutoCompleteTextView
    android:id="@+id/autoCompleteTextView"
    android:layout_width="282dp"
    android:layout_height="134dp"
    android:layout_marginStart="69dp"
    android:layout_marginTop="16dp"
    android:layout_marginEnd="60dp"
    android:text="enter any fruit"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

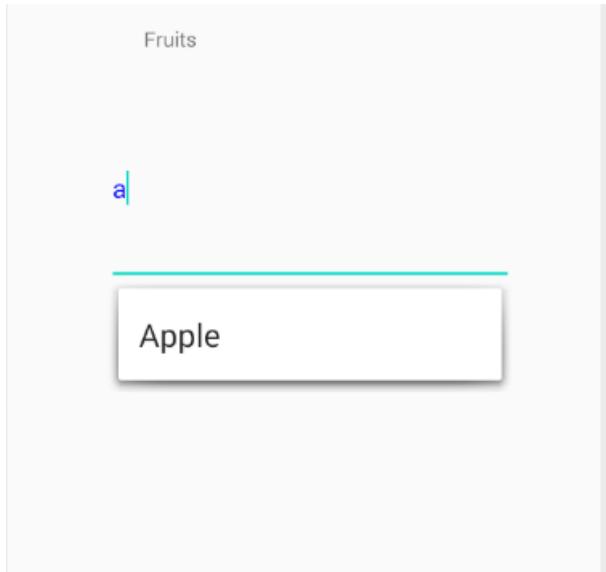
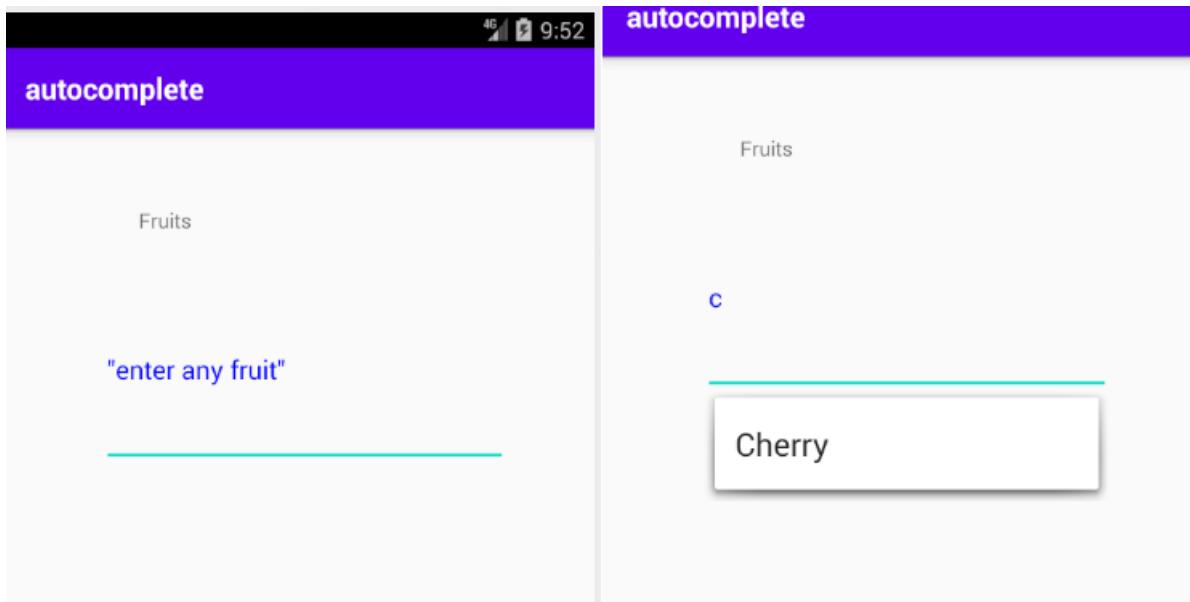
MAIN ACTIVITY.JAVA

```

package com.example.autocomplete;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.graphics.Color;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
public class MainActivity extends AppCompatActivity
{
String[] fruits = { "Apple", "Banana", "Cherry", "Date", "Grape", "Kiwi", "Mango", "Pear"};
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
        android.R.layout.select_dialog_item, fruits);
        AutoCompleteTextView auto = (AutoCompleteTextView)
        findViewById(R.id.autoCompleteTextView);
        auto.setThreshold(1);
        auto.setAdapter(adapter);
        auto.setTextColor(Color.BLUE);
    }
}

```

OUTPUT



RESULT:

The required output has been obtained and verified.

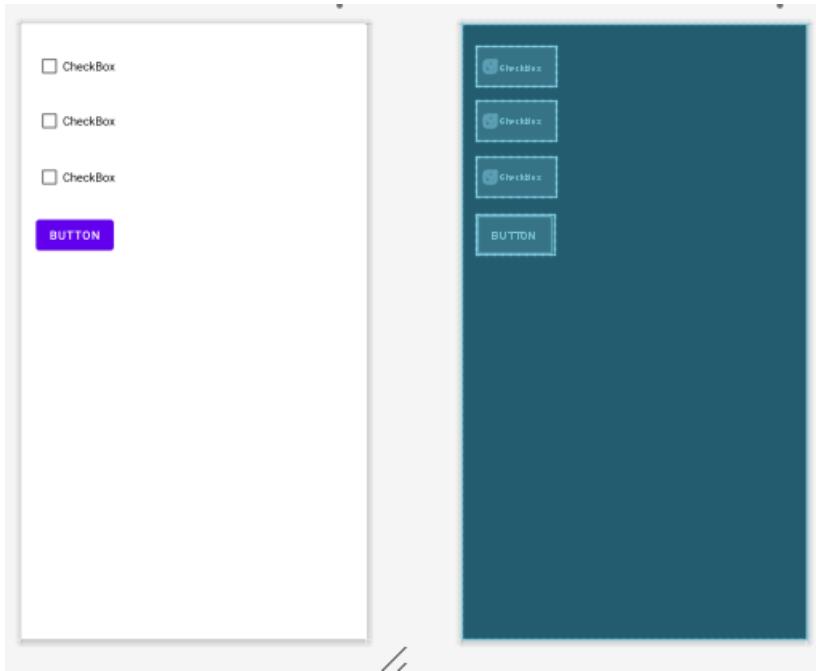
EX.NO: 12
DATE:08.03.2022

CHECKBOX

AIM:

To implement Check box using Android Studio.

DESIGN VIEW:



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">
    <CheckBox
        android:id="@+id/checkBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="25dp"
```

```

        android:text="Idly(2) : Rs. 40/-"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <CheckBox
        android:id="@+id/checkBox2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="17dp"
        android:text="Dosai : Rs. 50/-"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox" />
    <CheckBox
        android:id="@+id/checkBox3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="19dp"
        android:text="Poori(2) : Rs. 60/-"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox2" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="21dp"
        android:onClick="calc"
        android:text="Calculate"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox3" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

MAINACTIVITY.JAVA:

```

package com.example.checkbox;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CheckBox;
import android.widget.Button;
import android.view.View;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity
{

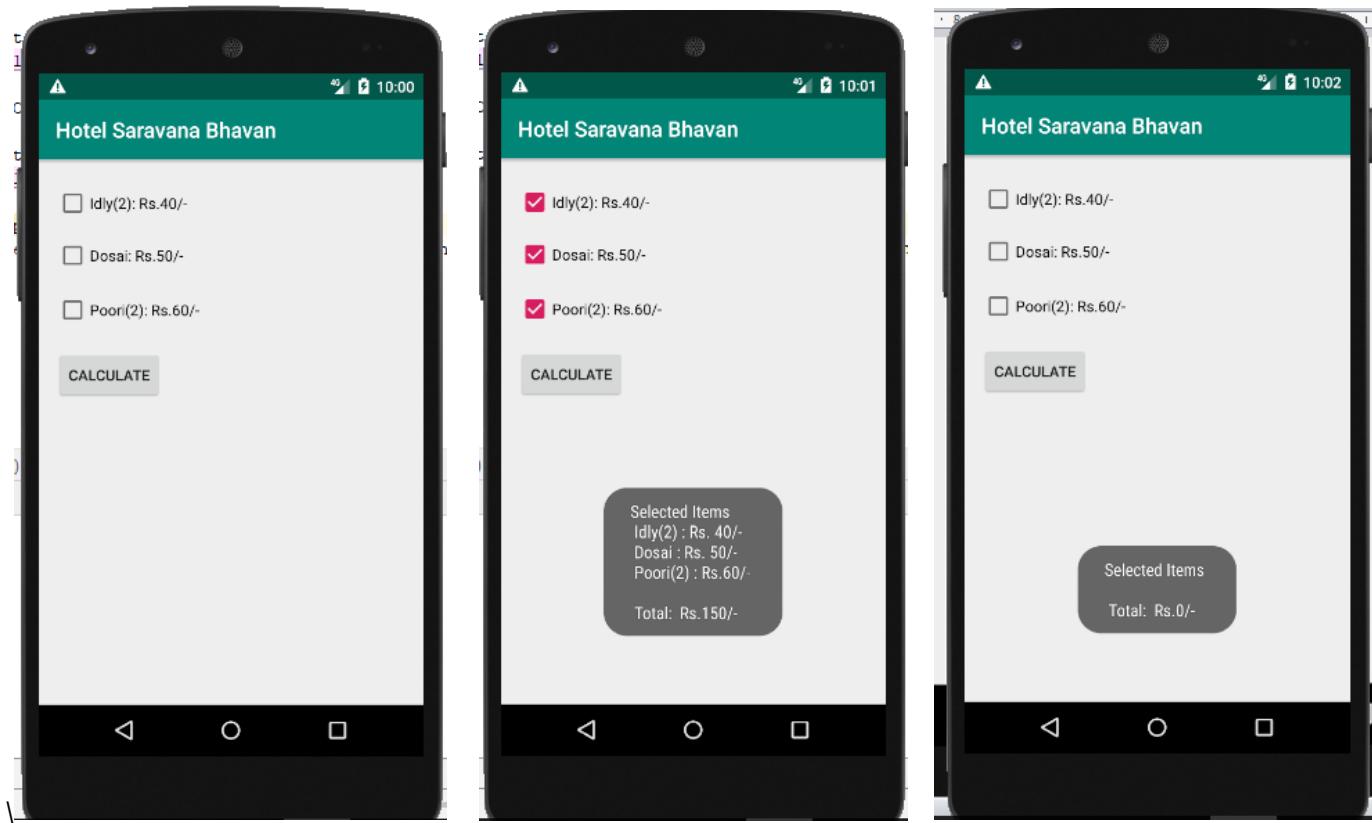
```

```

CheckBox cb1, cb2, cb3;
Button b;
@Override
protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    cb1=(CheckBox)findViewById(R.id.checkBox);
    cb2=(CheckBox)findViewById(R.id.checkBox2);
    cb3=(CheckBox)findViewById(R.id.checkBox3);
    b=(Button)findViewById(R.id.button);
}
public void calc(View v)
{
    int total=0;
    StringBuilder result=new StringBuilder();
    result.append("Selected Items");
    if(cb1.isChecked())
    {
        result.append("\n Idly(2): Rs.40/-");
        total+=40;
    }
    if(cb2.isChecked())
    {
        result.append("\n Dosai Rs.50/-");
        total+=50;
    }
    if(cb3.isChecked())
    {
        result.append("\n Poori(2): Rs.60/-");
        total+=60;
    }
    result.append("\n Total:"+ "Rs." +total+"/-");
    Toast.makeText(getApplicationContext(),result.toString(),Toast.LENGTH_LONG).show();
}
}

```

OUTPUT



RESULT:

The required output has been obtained and verified.

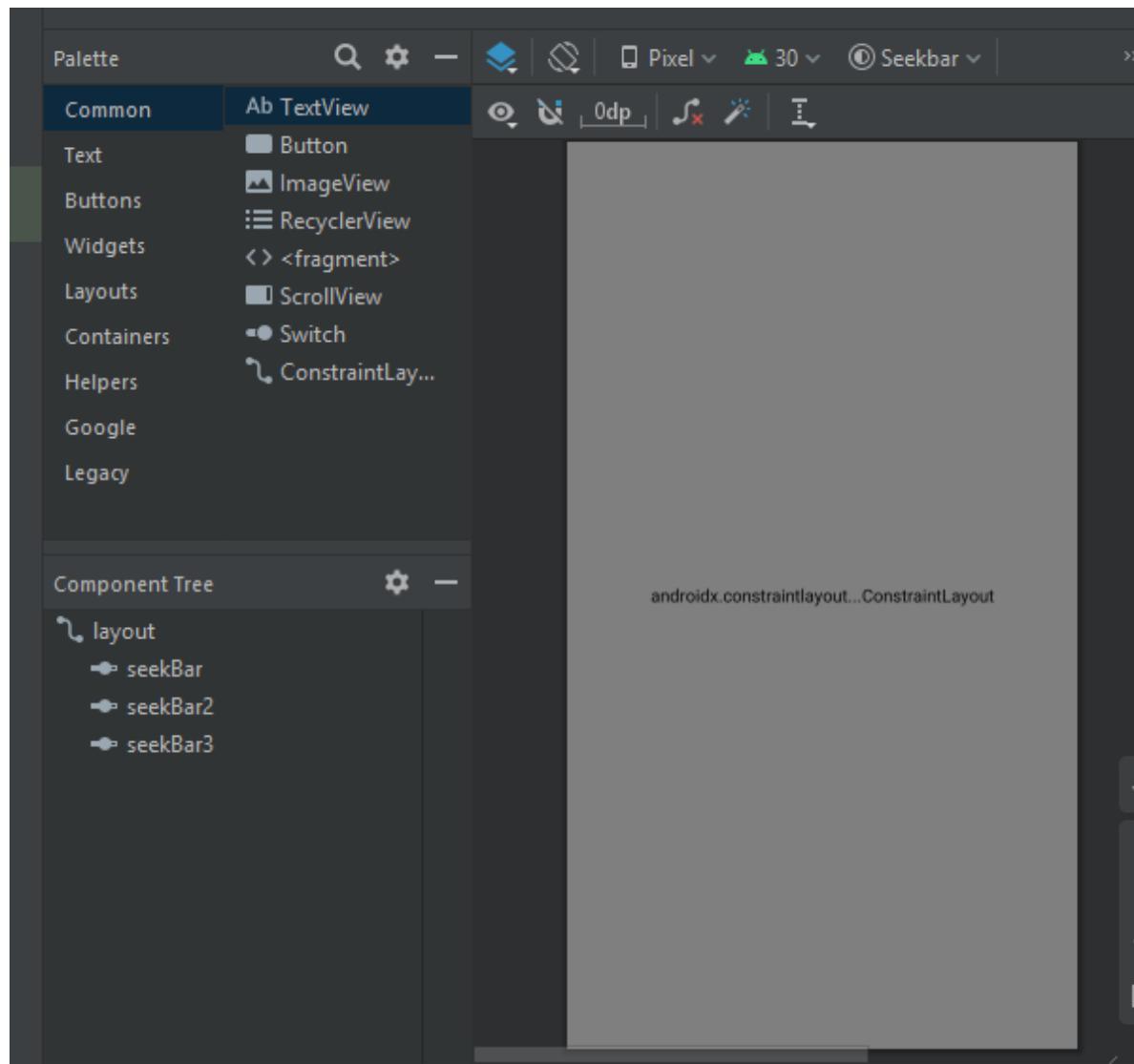
EX.NO: 13
DATE:09.03.2022

CHANGE THE BACKGROUND COLOR USING SEEKBAR

AIM:

To change the background color using seekbar in Android Studio.

DESIGN VIEW:



MAIN ACTIVITY.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:id="@+id/layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <SeekBar
        android:id="@+id/seekBar"
        android:layout_width="220dp"
        android:layout_height="38dp"
        android:layout_marginStart="95dp"
        android:layout_marginTop="129dp"
        android:layout_marginEnd="96dp"
        android:layout_marginBottom="564dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <SeekBar
        android:id="@+id/seekBar2"
        android:layout_width="220dp"
        android:layout_height="47dp"
        android:layout_marginStart="95dp"
        android:layout_marginTop="211dp"
        android:layout_marginEnd="96dp"
        android:layout_marginBottom="473dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <SeekBar
        android:id="@+id/seekBar3"
        android:layout_width="218dp"
        android:layout_height="46dp"
        android:layout_marginStart="95dp"
        android:layout_marginTop="308dp"
        android:layout_marginEnd="98dp"
        android:layout_marginBottom="377dp"
        app:layout_constraintBottom_toBottomOf="parent"
```

```

    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAIN ACTIVITY.JAVA

```

package com.example.seekbar;
import androidx.appcompat.app.AppCompatActivity;
import androidx.constraintlayout.widget.ConstraintLayout;
import android.graphics.Color;
import android.os.Bundle;
import android.widget.SeekBar;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity
{
    int r, g, b;
    SeekBar r_sb, g_sb, b_sb;
    ConstraintLayout screen;
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        screen = (ConstraintLayout) findViewById(R.id.layout);
        r_sb = (SeekBar) findViewById(R.id.seekBar);
        g_sb = (SeekBar) findViewById(R.id.seekBar2);
        b_sb = (SeekBar) findViewById(R.id.seekBar3);
        updateBackground();
        r_sb.setOnSeekBarChangeListener(seekBarChangeListener);
        g_sb.setOnSeekBarChangeListener(seekBarChangeListener);
        b_sb.setOnSeekBarChangeListener(seekBarChangeListener);
    }
    private SeekBar.OnSeekBarChangeListener seekBarChangeListener = new
        SeekBar.OnSeekBarChangeListener()
    {
        @Override
        public void onProgressChanged(SeekBar seekBar, int progress, boolean fromUser)
        {
            // TODO Auto-generated method stub
            updateBackground();
        }
        @Override
        public void onStartTrackingTouch(SeekBar seekBar)
        {
            // TODO Auto-generated method stub

```

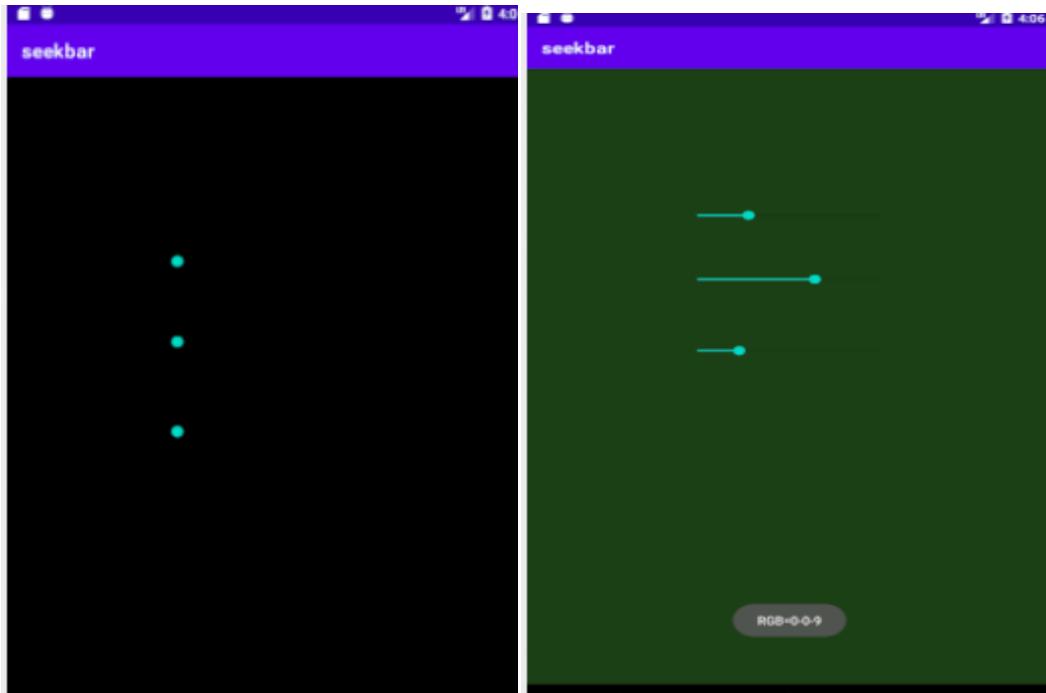
```
        }

    @Override
    public void onStopTrackingTouch(SeekBar seekBar)
    {
        // TODO Auto-generated method stub
    }
};

public void updateBackground()
{
    r = r_sb.getProgress();
    g = g_sb.getProgress();
    b = b_sb.getProgress();
    Toast.makeText(this,"RGB="+r+"-"+g+"-"+b,Toast.LENGTH_LONG).show();
    screen.setBackgroundColor(Color.rgb(r,g,b));
}

}
```

OUTPUT



RESULT:

The required output has been obtained and verified.

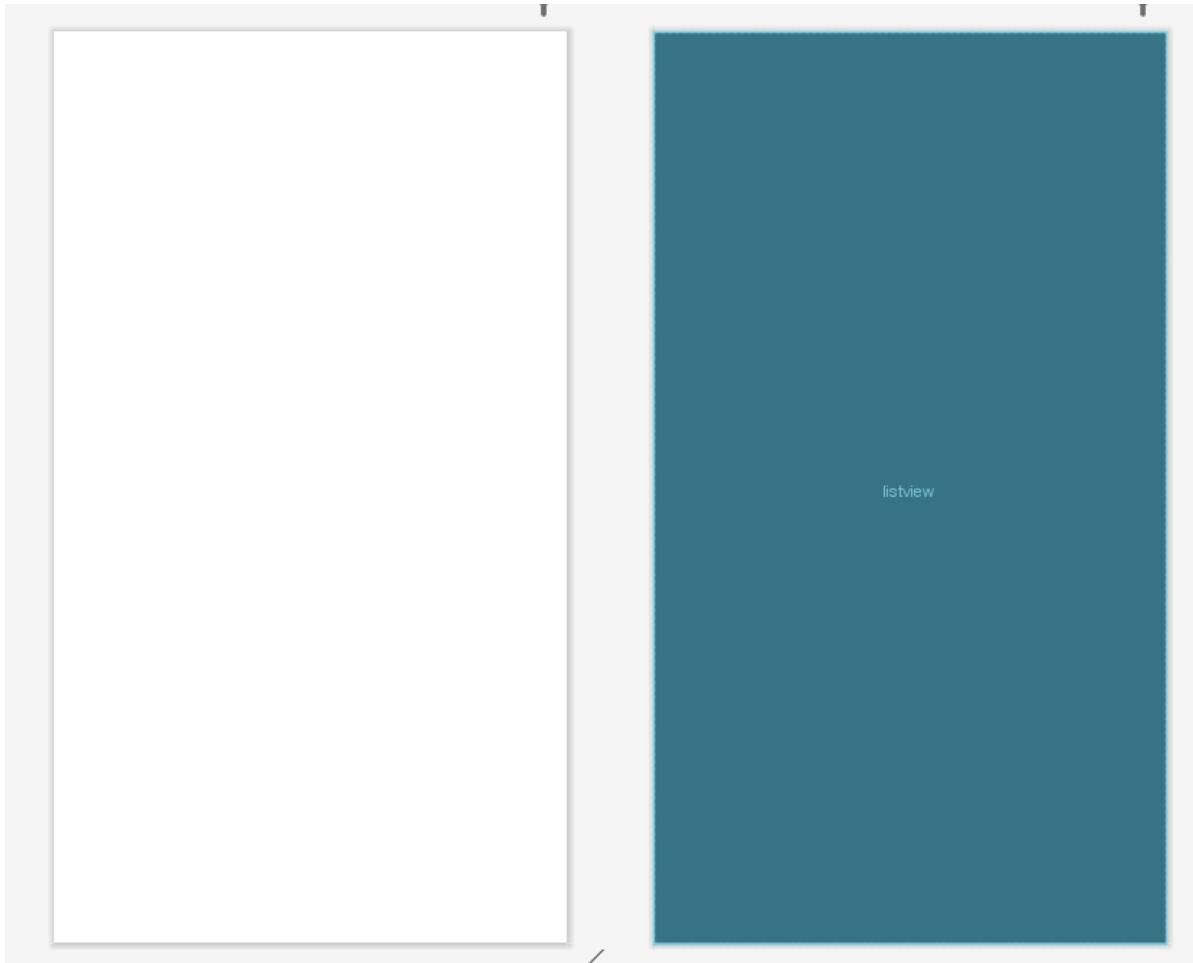
EX.NO: 14
DATE:09.03.2022

LISTVIEW

AIM:

To implement List view by using Android Studio.

DESIGN VIEW



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">

    <ListView
        android:id="@+id/listview"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:layout_editor_absoluteX="51dp"
        tools:layout_editor_absoluteY="80dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAINACTIVITY.JAVA:

```

package com.example.list;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.os.Bundle;
import android.widget.ListView;
import android.widget.ArrayAdapter;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;

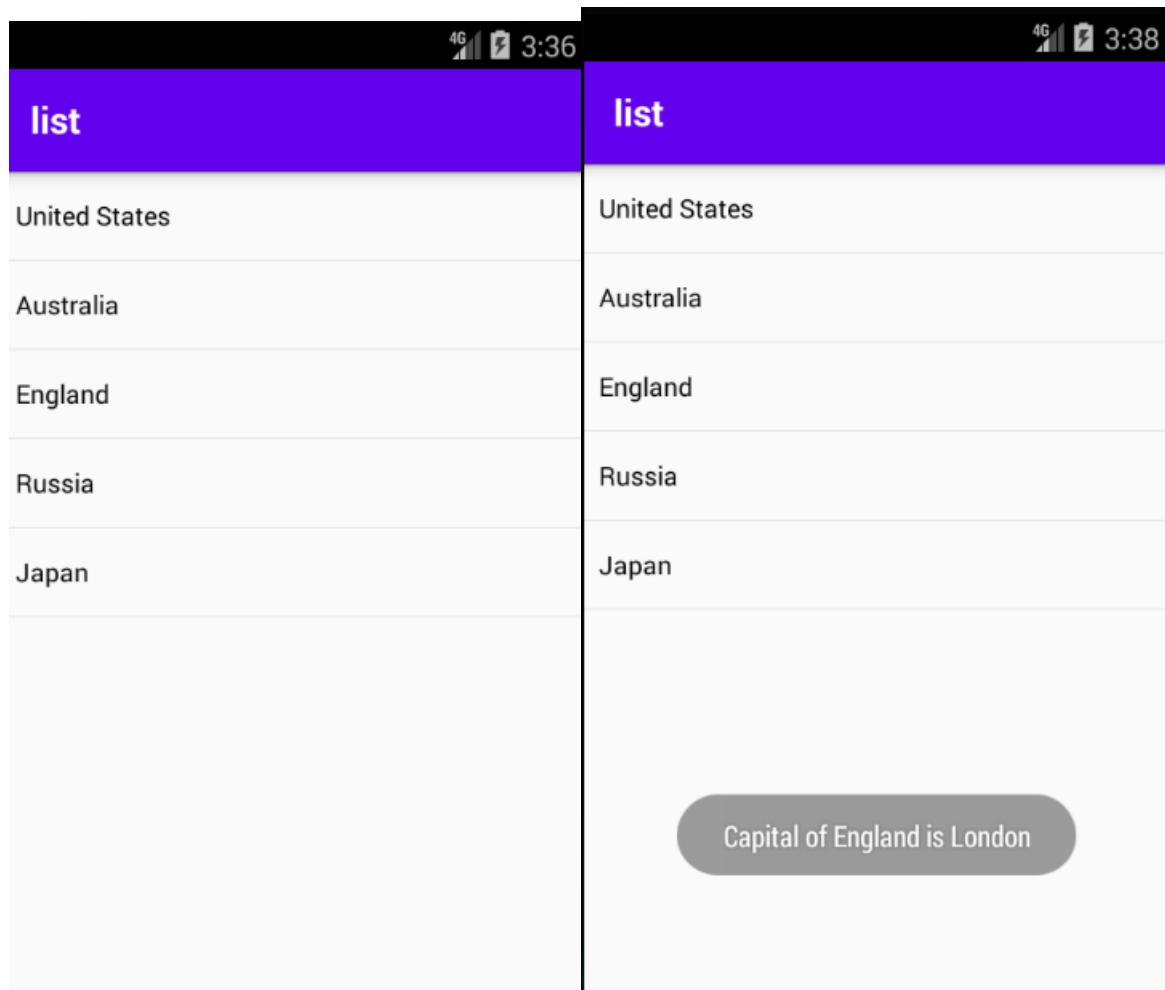
public class MainActivity extends AppCompatActivity
{
    String[] country = {"United States", "Australia", "England", "Russia", "Japan"};
    String[] capital = new String[]{"WashingtonDC", "Sydney", "London", "Moscow", "Tokyo"};
    ListView lv;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        lv = (ListView) findViewById(R.id.listview);
        ArrayAdapter adapter = new ArrayAdapter<String>(this,
            R.layout.support_simple_spinner_dropdown_item, country);
        lv.setAdapter(adapter);
        lv.setOnItemClickListener(new OnItemClickListener()
        {
            public void onItemClick(AdapterView View, View a2, int a3, long a4)
            {
                if (a3 == 0)
                    Toast.makeText(getApplicationContext(), "Capital of "+country[a3]+ " is "+capital[a3],
                        Toast.LENGTH_SHORT).show();
                else if (a3 == 1)
                    Toast.makeText(getApplicationContext(), "Capital of "+country[a3]+ " is "+capital[a3],

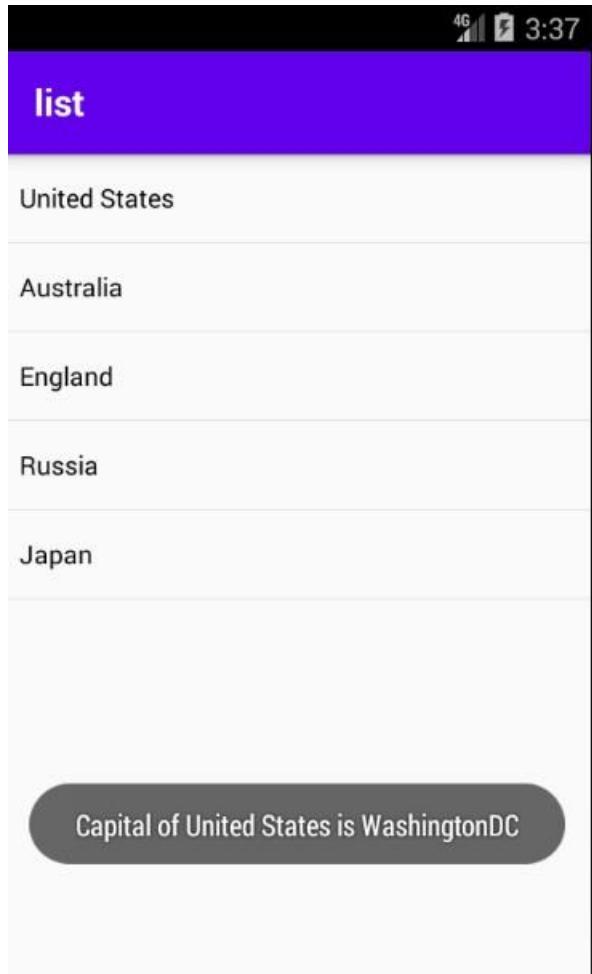
```

```
Toast.LENGTH_SHORT).show();
    else if (a3 == 2)
        Toast.makeText(getApplicationContext(), "Capital of "+country[a3]+" is "+capital[a3],
        Toast.LENGTH_SHORT).show();
    else if (a3 == 3)
        Toast.makeText(getApplicationContext(), "Capital of "+country[a3]+" is "+capital[a3],
        Toast.LENGTH_SHORT).show();
    else if (a3 == 4)
        Toast.makeText(getApplicationContext(), "Capital of "+country[a3]+" is "+capital[a3],
        Toast.LENGTH_SHORT).show();

    }
});
```

OUTPUT:





RESULT:

The required output has been obtained and verified.

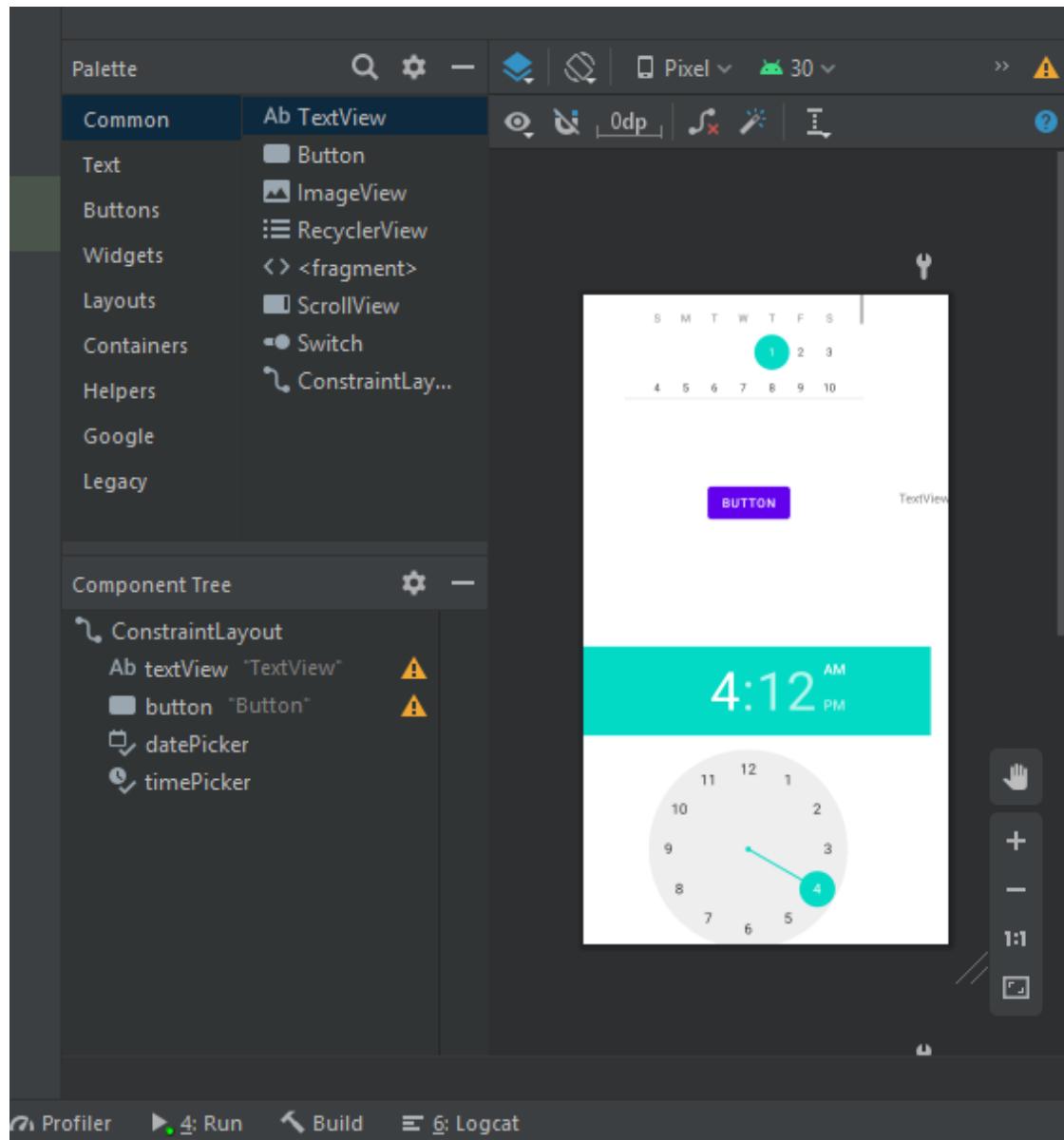
EX.NO: 15
DATE:10.03.2022

PICKERSVIEW

AIM:

To implement PickersView by using Android Studio.

DESIGN VIEW:



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">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="291dp"
        android:layout_marginTop="465dp"
        android:layout_marginEnd="192dp"
        android:layout_marginBottom="739dp"
        android:text="TextView"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="77dp"
        android:layout_marginTop="456dp"
        android:layout_marginEnd="368dp"
        android:layout_marginBottom="719dp"
        android:onClick="set"
        android:text="Button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <DatePicker
        android:id="@+id/datePicker"
        android:layout_width="269dp"
        android:layout_height="264dp"
        android:layout_marginStart="111dp"
        android:layout_marginTop="99dp"
        android:layout_marginEnd="160dp"
        android:layout_marginBottom="860dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
```

```

    app:layout_constraintTop_toTopOf="parent" />

<TimePicker
    android:id="@+id/timePicker"
    android:layout_width="411dp"
    android:layout_height="352dp"
    android:layout_marginStart="44dp"
    android:layout_marginTop="642dp"
    android:layout_marginEnd="85dp"
    android:layout_marginBottom="229dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAIN ACTIVITY.JAVA:

```

package com.example.pickers;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.os.Bundle;
import android.view.Gravity;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;
import android.widget.TimePicker;
public class MainActivity extends AppCompatActivity
{
    Int year,month,day,hour,min;
    DatePicker dp;
    TimePicker tp;
    TextView tv;
    Button b;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        dp=(DatePicker)findViewById(R.id.datePicker);
        tp=(TimePicker)findViewById(R.id.timePicker);
        tv=(TextView)findViewById(R.id.textView);
        b=(Button)findViewById(R.id.button);
        tp.setIs24HourView(true); //true for 24 hour and false for 12 hour
    }
    public void set(View v)

```

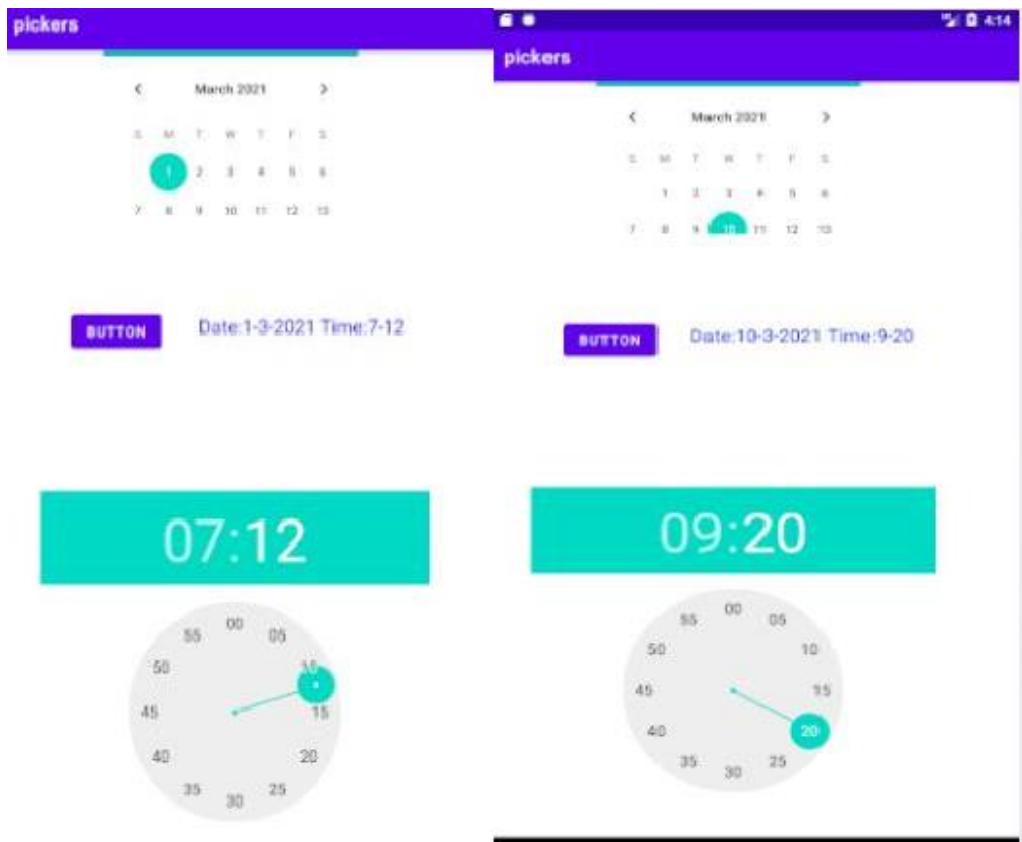
```

{
year = dp.getYear();
month = dp.getMonth()+1;
day = dp.getDayOfMonth();
hour=tp.getCurrentHour();
min=tp.getCurrentMinute();

String s1=day+"-"+month+"-"+year;
String s2=hour+"-"+min;
tv.setTextColor(Color.BLUE);
tv.setGravity(Gravity.CENTER);
tv.setTextSize(20);
tv.setText("Date:"+s1+" Time:"+s2);
}
}

```

OUTPUT



RESULT:

The required output has been obtained and verified.

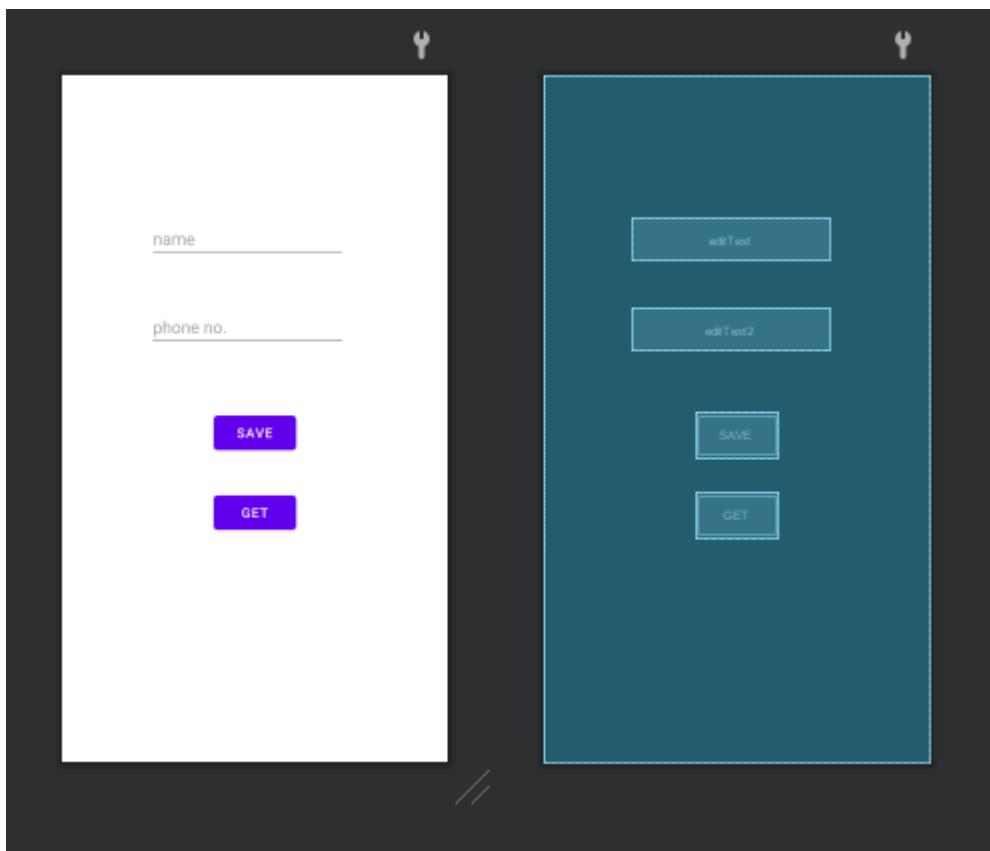
EX.NO: 16
DATE:10.03.2022

SHARED PREFERENCE

AIM:

To implement shared preference by using Android Studio.

DESIGN VIEW



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">
```

```
<EditText
    android:id="@+id/editText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="93dp"
    android:layout_marginTop="49dp"
    android:layout_marginEnd="108dp"
    android:ems="10"
    android:hint="phone no."
    android:inputType="textPersonName"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText" />
```

```
<EditText
    android:id="@+id/editText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="93dp"
    android:layout_marginTop="152dp"
    android:layout_marginEnd="108dp"
    android:ems="10"
    android:hint="name"
    android:inputType="textPersonName"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

```
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="159dp"
    android:layout_marginTop="66dp"
    android:layout_marginEnd="159dp"
    android:onClick="save"
    android:text="save"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText2" />
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="159dp"
```

```
        android:layout_marginTop="37dp"
        android:layout_marginEnd="159dp"
        android:onClick="get"
        android:text="get"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/button" />

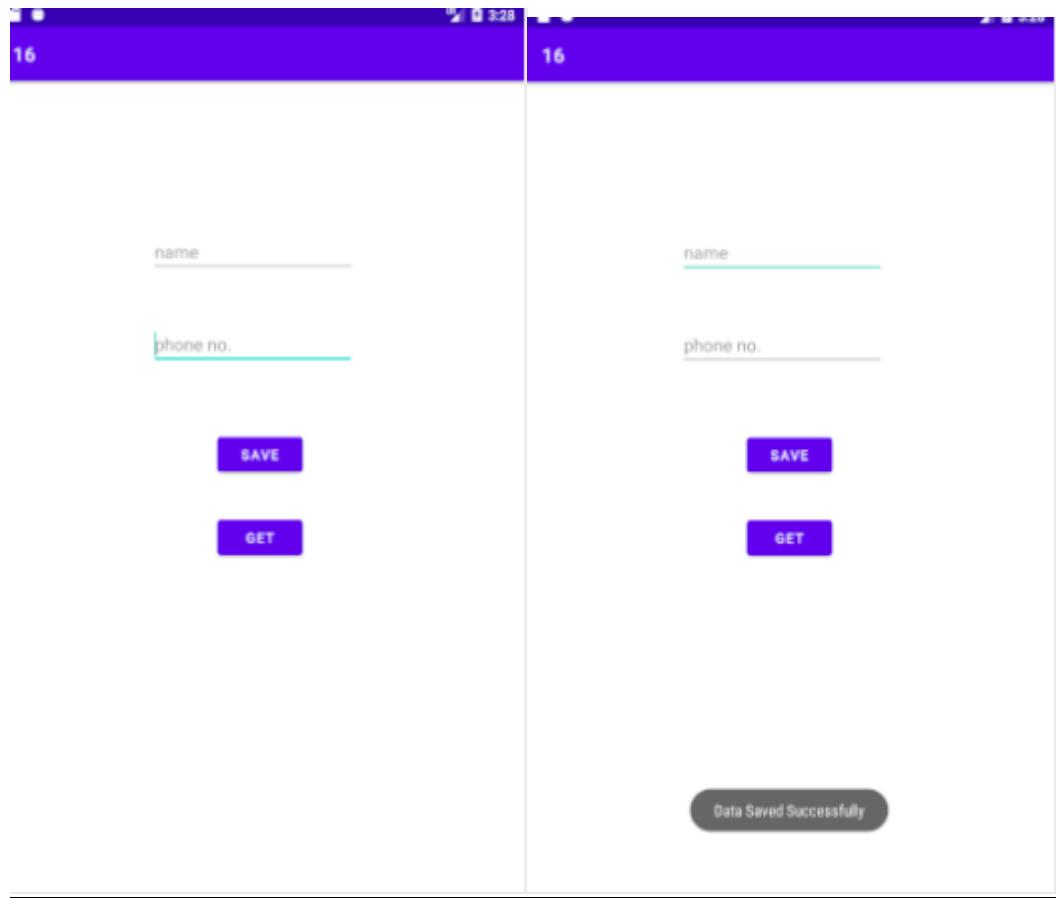
    </androidx.constraintlayout.widget.ConstraintLayout>
```

MAINACTIVITY.JAVA:

```
package com.example.a16;
import androidx.appcompat.app.AppCompatActivity;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity
{
    EditText et1,et2;
    SharedPreferences sp;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        et1=(EditText)findViewById(R.id.editText);
        et2=(EditText)findViewById(R.id.editText2);
    }
    public void save(View view)
    {
        String n = et1.getText().toString();
        String e = et2.getText().toString();
        sp = getSharedPreferences("Pref",0);
        SharedPreferences.Editor editor = sp.edit();
        editor.putString("Name", n);
        editor.putString("Phone", e);
        editor.commit();
        et1.setText("");
        et2.setText("");
        Toast.makeText(this, "Data Saved Successfully", Toast.LENGTH_LONG).show();
    }
    public void get(View view)
    {
        sp = getSharedPreferences("Pref",0);
```

```
if (sp.contains("Name"))
    et1.setText(sp.getString("Name", ""));
else
    Toast.makeText(this,"No such Name key",Toast.LENGTH_LONG).show();
if (sp.contains("Phone"))
    et2.setText(sp.getString("Phone", ""));
else
    Toast.makeText(this,"No such Phone key",Toast.LENGTH_LONG).show();
    Toast.makeText(this, "Data Retrieved Successfully", Toast.LENGTH_LONG).show();
}
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

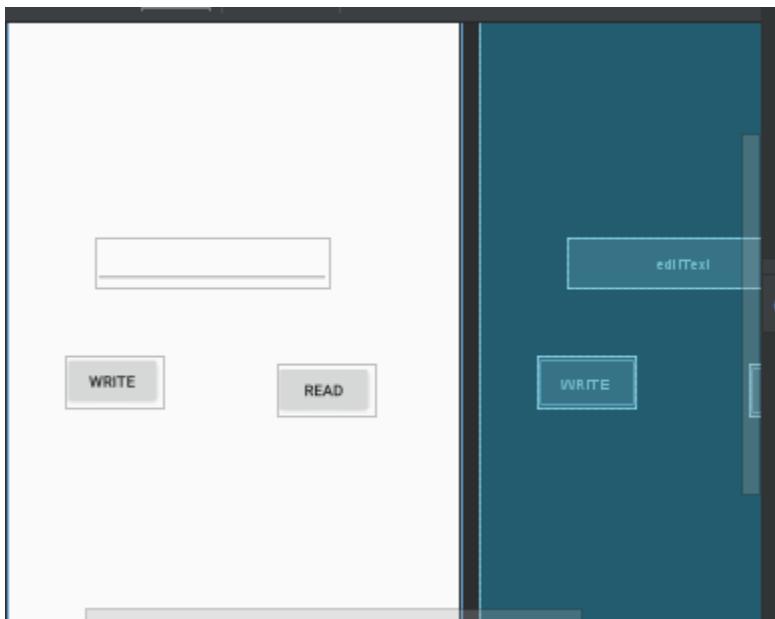
EX.NO: 17
DATE:11.03.2022

MANIPULATION OF FILES IN ANDROID

AIM:

To implement manipulation of files by using Android Studio.

DESIGN VIEW



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">

    <EditText
        android:id="@+id/editText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="80dp"
        android:layout_marginTop="234dp"
        android:ems="10" />
```

```

        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="340dp"
        android:onClick="write"
        android:text="write"
        app:layout_constraintTop_toTopOf="parent"
        tools:layout_editor_absoluteX="52dp" />

<Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="244dp"
        android:layout_marginTop="348dp"
        android:onClick="read"
        android:text="read"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAIN ACTIVITY.JAVA:

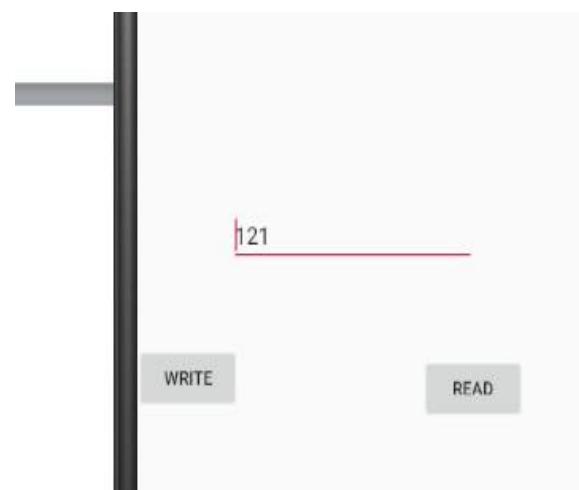
```

package com.example.manipulation;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
import java.io.FileInputStream;
import java.io.FileOutputStream;
public class MainActivity extends AppCompatActivity {
    EditText et;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        et=(EditText)findViewById(R.id.editText);
    }
    public void write(View v)
    {

```

```
try
{
    FileOutputStream fout=openFileOutput("file.txt", MODE_PRIVATE);
    String s=et.getText().toString();
    fout.write(s.getBytes());
    fout.close();
    //display file saved message
    Toast.makeText(getApplicationContext(), "File contents saved successfully!",
    Toast.LENGTH_SHORT).show();
    et.setText("");
}
catch (Exception e) { e.printStackTrace();
}
}
// Read text from file
public void read(View v)
{
    try
    {
        FileInputStream fin=openFileInput("file.txt");
        String s="";
        int c;
        while ((c=fin.read())!=-1)
            s +=Character.toString((char)c);
        fin.close();
        et.setText(s);
    }
    catch (Exception e) { e.printStackTrace();
    }
}
}
```

OUTPUT



RESULT:

The required output has been obtained and verified.

EX.NO: 18

DATE:11.03.2022

STUDENT DATABASE MANIPULATION

USING SQLITE

AIM:

To implement student database manipulation using SQLite in Android Studio.

DESIGN VIEW



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">
```

```
<EditText
    android:id="@+id/editText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="45dp"
    android:layout_marginTop="60dp"
    android:ems="10"
    android:hint="rollno"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/editText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="41dp"
    android:layout_marginTop="24dp"
    android:ems="10"
    android:hint="name"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText" />

<EditText
    android:id="@+id/editText3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="44dp"
    android:layout_marginTop="28dp"
    android:ems="10"
    android:hint="marks"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText2" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="37dp"
    android:layout_marginTop="19dp"
    android:layout_marginEnd="67dp"
    android:hint="insert"
    android:onClick="insert"
    app:layout_constraintEnd_toStartOf="@+id/button2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editText3" />
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="67dp"
    android:layout_marginTop="19dp"
    android:layout_marginEnd="131dp"
    android:hint="delete"
    android:onClick="delete"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/button"
    app:layout_constraintTop_toBottomOf="@+id/editText3" />
```

```
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="45dp"
    android:layout_marginTop="48dp"
    android:layout_marginEnd="69dp"
    android:hint="update"
    android:onClick="update"
    app:layout_constraintEnd_toStartOf="@+id/button4"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button" />
```

```
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="69dp"
    android:layout_marginTop="48dp"
    android:layout_marginEnd="121dp"
    android:hint="view"
    android:onClick="view"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/button3"
    app:layout_constraintTop_toBottomOf="@+id/button2" />
```

```
<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="125dp"
    android:layout_marginTop="187dp"
    android:layout_marginEnd="198dp" android:hint="view all"
    android:onClick="viewall"
    app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/editText3" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MAIN ACTIVITY.JAVA

```
package com.example.m;
import androidx.appcompat.app.AppCompatActivity;
import android.app.AlertDialog;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity
{
    EditText et1,et2,et3;
    Button b1,b2,b3,b4,b5;
    SQLiteDatabase db;
    String s1,s2,s3; @Override
protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    et1=(EditText)findViewById(R.id.editText);
    et2=(EditText)findViewById(R.id.editText2);
    et3=(EditText)findViewById(R.id.editText3);
    b1=(Button)findViewById(R.id.button);
    b2=(Button)findViewById(R.id.button2);
    b3=(Button)findViewById(R.id.button3);
    b4=(Button)findViewById(R.id.button4);
    b5=(Button)findViewById(R.id.button5);
    db=openOrCreateDatabase("StudentDB", Context.MODE_PRIVATE, null);
    db.execSQL("CREATE TABLE IF NOT EXISTS student(rollno VARCHAR, name VARCHAR, marks VARCHAR);");
}
public void insert(View v)
{
    s1=et1.getText().toString().trim();
    s2=et2.getText().toString().trim();
    s3=et3.getText().toString().trim();
    if(s1.length()==0||s2.length()==0||s3.length()==0)
    {
        showMessage("Error", "Please enter all values");
    }
    return;
}
```

```

        }
        db.execSQL("INSERT INTO student(rollno,name,marks) VALUES(\""+s1+"','"+s2+"','"+s3+"\");");
        showMessage("Success", "Record added");
        clearText();
    }
}

public void delete(View v)
{
    s1=et1.getText().toString().trim();
    s2=et2.getText().toString().trim();
    s3=et3.getText().toString().trim();
    if(s1.length()==0)
    {
        showMessage("Error", "Please enter Rollno");
        return;
    }
    Cursor c=db.rawQuery("SELECT rollno,name,marks FROM student WHERE rollno=\""+s1+"\"",null);
    if(c.moveToFirst())
    {
        db.execSQL("DELETE FROM student WHERE rollno=\""+s1+"\"");
        showMessage("Success", "Record Deleted");
    }
    else
        showMessage("Error", "Invalid Rollno");
        clearText();
    }

public void update(View v)
{
    s1=et1.getText().toString().trim();
    s2=et2.getText().toString().trim();
    s3=et3.getText().toString().trim();
    // Checking for empty roll number
    if(s1.length()==0)
    {
        showMessage("Error", "Please enter Rollno");
        return;
    }
    Cursor c=db.rawQuery("SELECT rollno,name,marks FROM student WHERE rollno=\""+s1+"\"",null);
    if(c.moveToFirst())
    {
        db.execSQL("UPDATE student SET name=\""+s2+"\",marks=\""+s3+"\" WHERE rollno=\""+s1+"\"");
        showMessage("Success", "Record Modified");
    }
    else
        showMessage("Error", "Invalid Rollno");
        clearText();
}

```

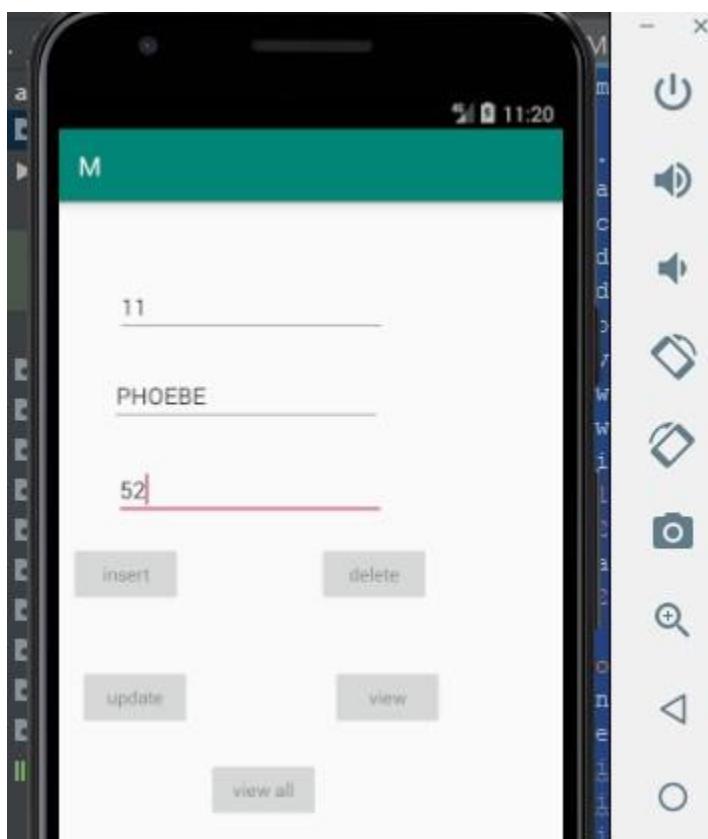
```

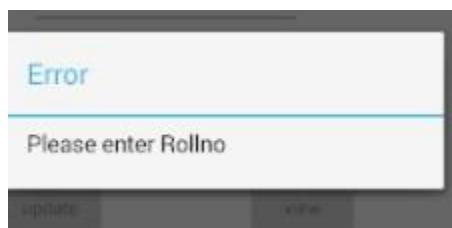
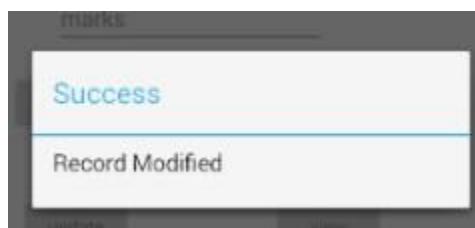
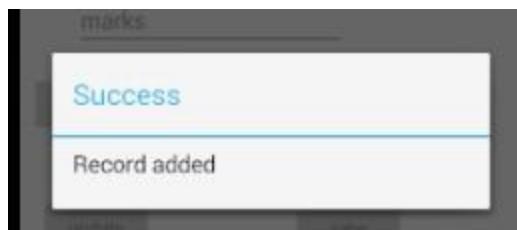
public void view(View v)
{
    s1=et1.getText().toString().trim();
    s2=et2.getText().toString().trim();
    s3=et3.getText().toString().trim();
    if(s1.length()==0)
    {
        showMessage("Error", "Please enter Rollno");
        return;
    }
    Cursor c=db.rawQuery("SELECT rollno,name,marks FROM student WHERE rollno='"+s1+"'",null);
    if(c.moveToFirst())
    {
        et2.setText(c.getString(1));
        et3.setText(c.getString(2));
    }
    else
    {
        showMessage("Error", "Invalid Rollno");
        clearText();
    }
}
public void viewall(View v)
{
    Cursor c=db.rawQuery("SELECT rollno,name,marks FROM student", null);
    if(c.getCount()==0)
    {
        showMessage("Error", "No records found");
        return;
    }
    StringBuffer buffer=new StringBuffer();
    while(c.moveToNext())
    {
        buffer.append("Rollno: "+c.getString(0)+"\n");
        buffer.append("Name: "+c.getString(1)+"\n");
        buffer.append("Marks: "+c.getString(2)+"\n\n");
    }
}

```

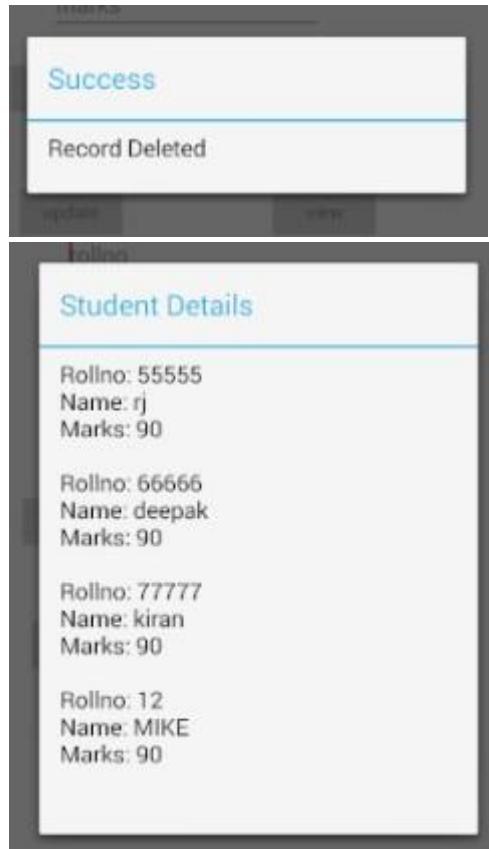
```
showMessage("Student Details", buffer.toString());
}
public void showMessage(String title, String message)
{
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setCancelable(true);
    builder.setTitle(title);
    builder.setMessage(message);
    builder.show();
}
public void clearText()
{
    et1.setText("");
    et2.setText("");
    et3.setText("");
    et1.requestFocus();
}
```

OUTPUT:





Student Details		
Rollno:	55555	
Name:	rj	
Marks:	90	
Rollno:	66666	
Name:	deepak	
Marks:	90	
Rollno:	77777	
Name:	kiran	
Marks:	90	
Rollno:	11	
Name:	CHANDLER	
Marks:	50	
Rollno:	12	
Name:	MIKE	
Marks:	90	



RESULT:

The required output has been obtained and verified.

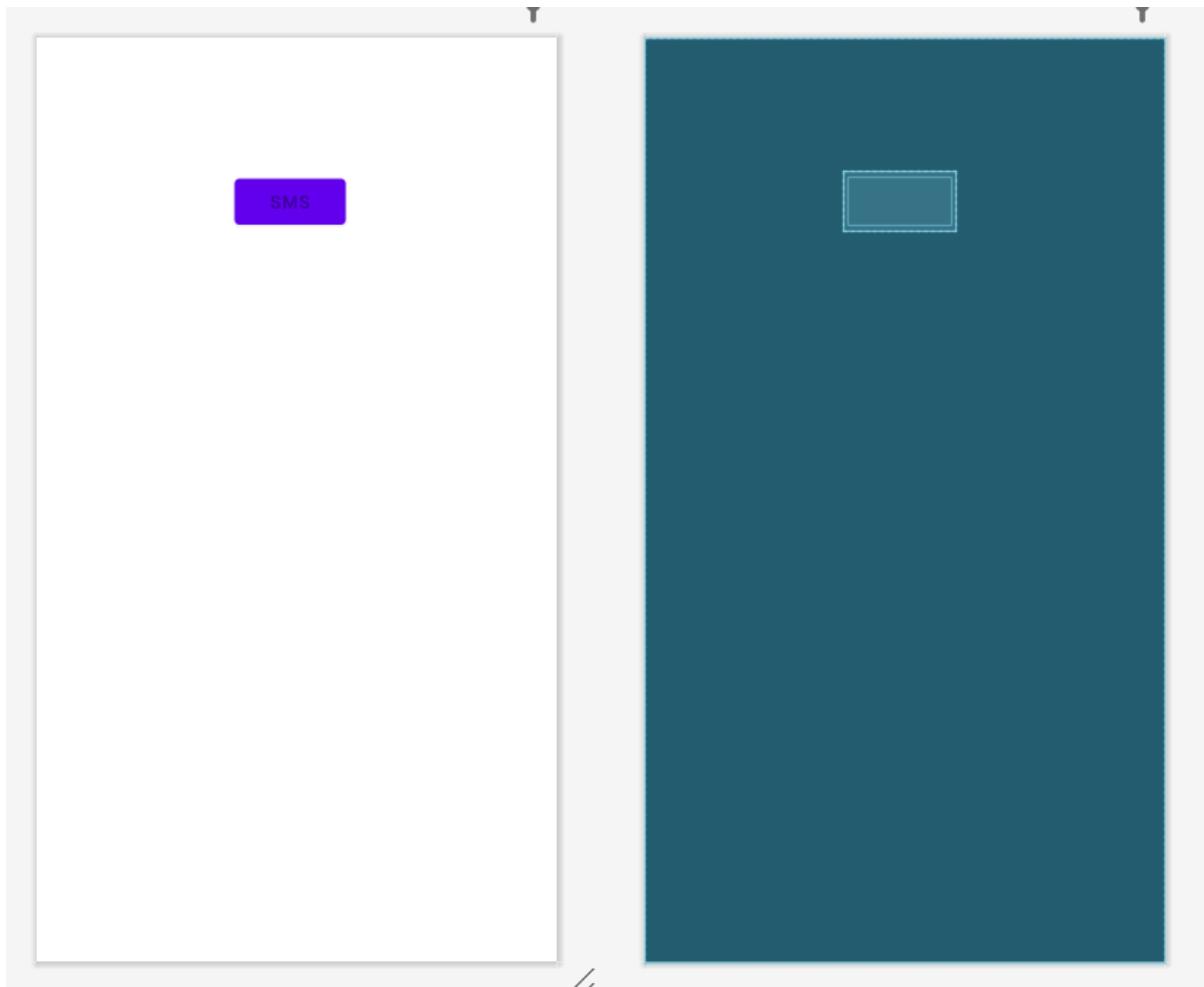
EX.NO: 19
DATE:12.03.2022

SENDING SMS

AIM:

To send message by using Android Studio.

DESIGN VIEW:



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">
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="156dp"
    android:layout_marginTop="106dp"
    android:layout_marginEnd="167dp"
    android:hint="SMS"
    android:onClick="sms"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

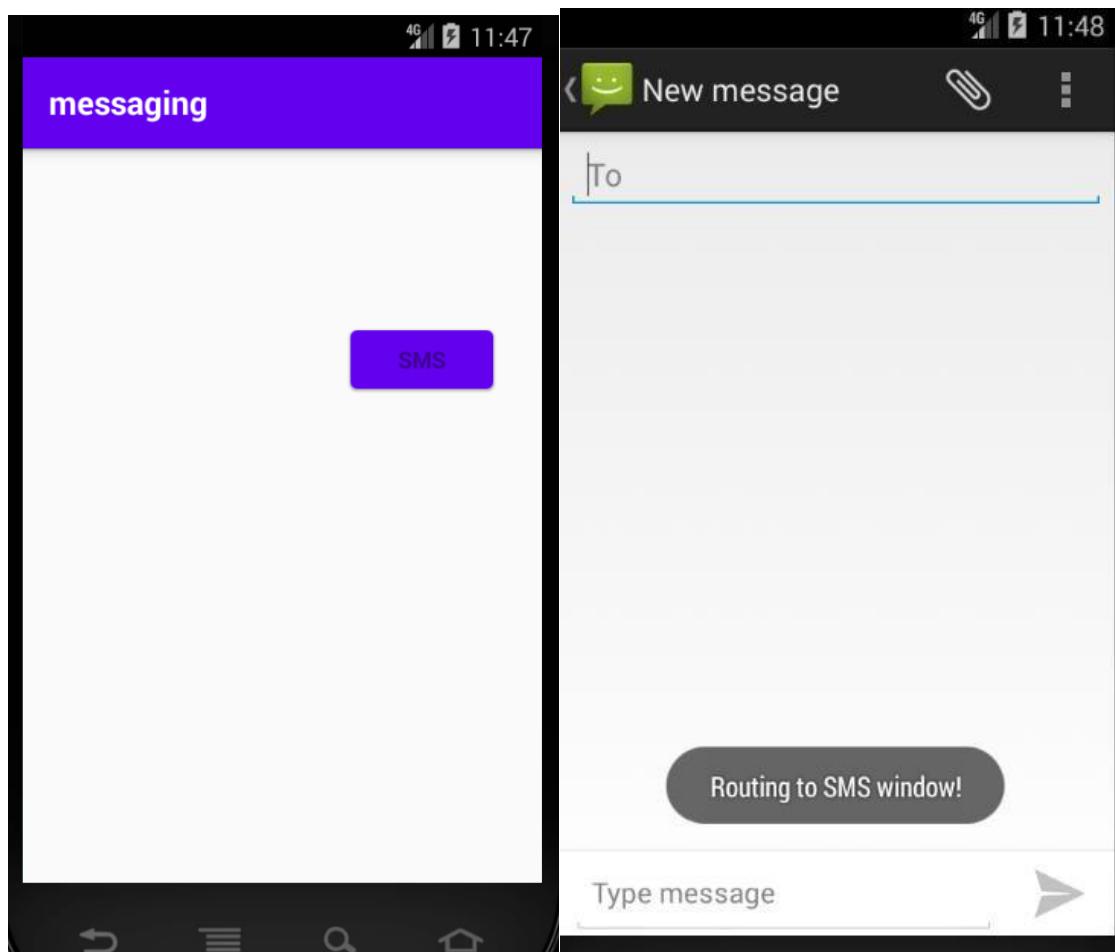
MAINACTIVITY.JAVA:

```

package com.example.messaging;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity
{
    Button b;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b=(Button)findViewById(R.id.button);
    }
    public void sms(View v)
    {
        Intent intent=new Intent(Intent.ACTION_VIEW);
        intent.setType("vnd.android-dir/mms-sms");
        startActivity(intent);
        Toast.makeText(getApplicationContext(), "Routing to SMS window!",
                           Toast.LENGTH_LONG).show();
    }
}

```

OUTPUT:



RESULT:

The required output has been obtained and verified.

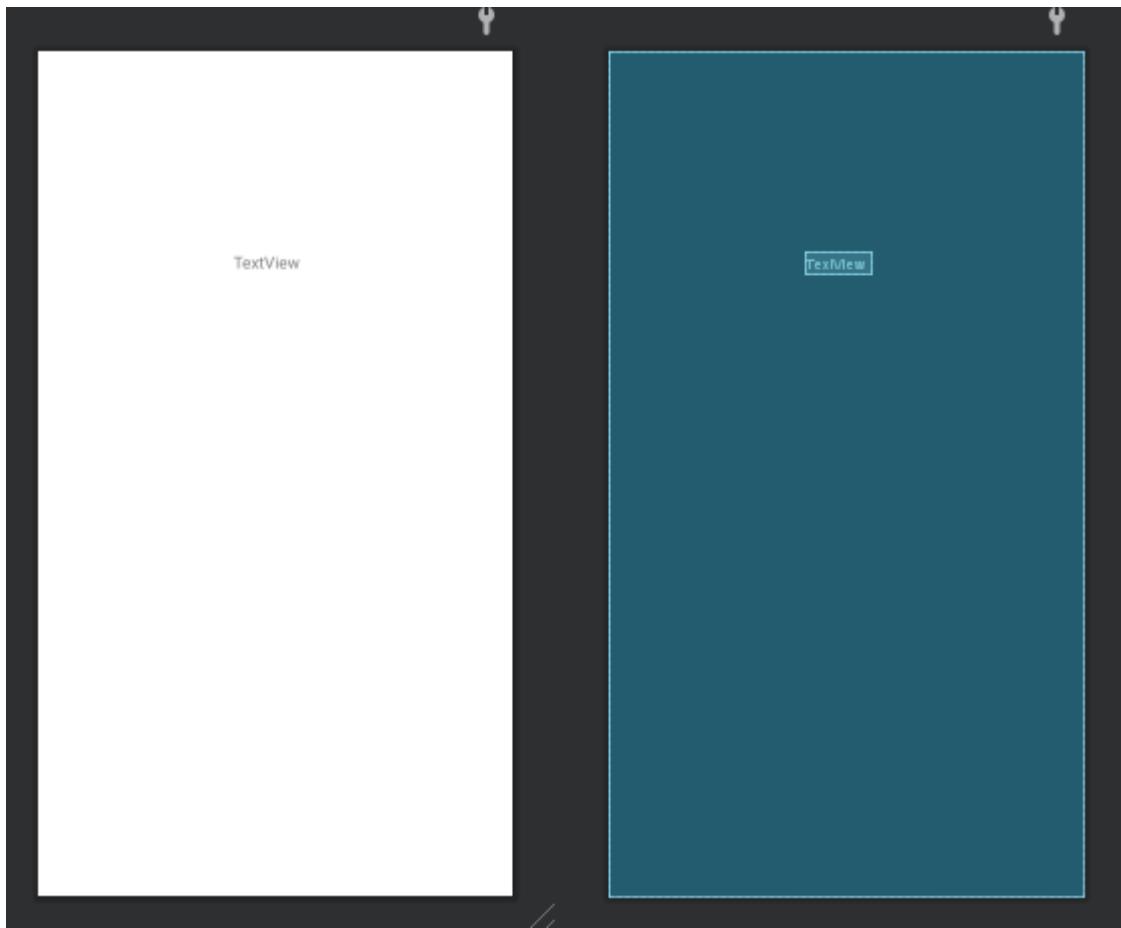
EX.NO: 20
DATE:12.03.2022

LOCATION BASED SERVICES

AIM:

To implement Location based services by using Android Studio.

DESIGN VIEW:



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">
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="169dp"
    android:layout_marginTop="173dp"
    android:layout_marginEnd="184dp"
    android:text="TextView"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

ANDROIDMANIFEST.XML

```

<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
<uses-permission android:name="android.permission.INTERNET"/>

```

MAIN ACTIVITY.JAVA

```

package com.example.location;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import android.Manifest;
import android.content.Context;
import android.content.pm.PackageManager;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity implements LocationListener
{
    private TextView textView;
    LocationManager locationManager;
    Boolean gps,nw;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        textView = (TextView) findViewById(R.id.textView);
    }
}

```

```

if(ActivityCompat.checkSelfPermission(this,Manifest.permission.ACCESS_FINE_LOCATION)
!= PackageManager.PERMISSION_GRANTED
&&
ActivityCompat.checkSelfPermission(this,Manifest.permission.ACCESS_COARSE_LOCATION) != PackageManager.PERMISSION_GRANTED)
{
return;
}
locationManager = (LocationManager)
getSystemService(Context.LOCATION_SERVICE);
gps = locationManager.isProviderEnabled(LocationManager.GPS_PROVIDER);
nw =
locationManager.isProviderEnabled(LocationManager.NETWORK_PROVIDER);

if(nw)
{
locationManager.requestLocationUpdates(LocationManager.NETWORK_PROVIDER,
30000, 10,
MainActivity.this);
Toast.makeText(this,"Network Provider",Toast.LENGTH_LONG).show();
}
if(gps)
{
locationManager.requestLocationUpdates(LocationManager.GPS_PROVIDER,
30000, 10, MainActivity.this);
Toast.makeText(this,"GPS Provider",Toast.LENGTH_LONG).show();
}
@Override
public void onLocationChanged(Location location)
{
double longitude=location.getLongitude();
double latitude=location.getLatitude();
textView.setText("Latitude="+latitude+"\n Longitude="+longitude);
}
@Override
public void onStatusChanged(String provider, int status, Bundle extras)
{ }
@Override
public void onProviderEnabled(String provider)
{ }
@Override
public void onProviderDisabled(String provider)
{ }
}

```

OUTPUT:



RESULT:

The required output has been obtained and verified.

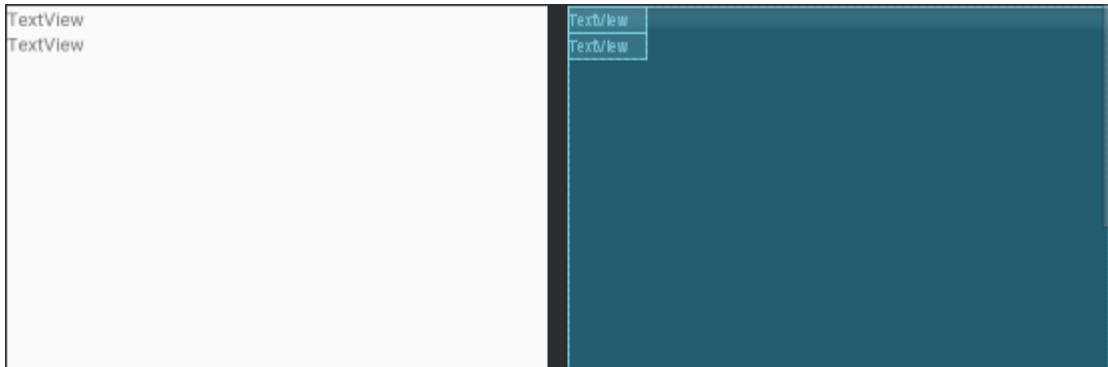
EX.NO: 21
DATE:15.03.2022

JSON SERVICES

AIM:

To implement JSON services by using Android Studio.

DESIGN VIEW



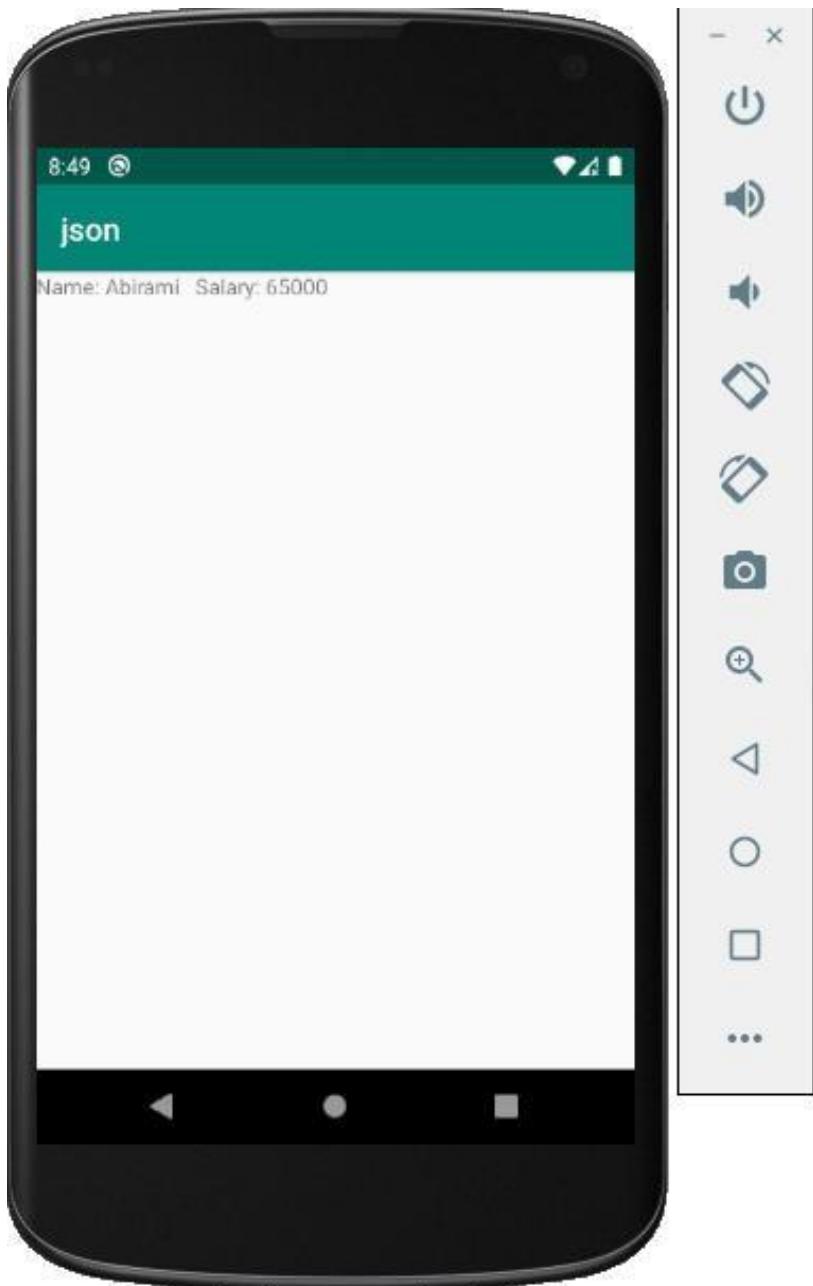
ACTIVITY_MAIN.XML

```
<LinearLayout 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"  
    tools:context=".MainActivity">  
  
<TextView  
    android:id="@+id/textView"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="TextView" />  
  
<TextView  
    android:id="@+id/textView2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="TextView" />  
  
</LinearLayout>
```

MAINACTIVITY.JAVA

```
package com.example.json;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
import org.json.JSONException;
import org.json.JSONObject;
public class MainActivity extends AppCompatActivity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        String JSON_STRING = "{\"employee\":{\"name\":\"Abirami\",\"salary\":65000}}";
        String name, salary;
        TextView tv1, tv2;
        tv1 = findViewById(R.id.textView);
        tv2 = findViewById(R.id.textView2);
        try
        {
            JSONObjectobj = new JSONObject(JSON_STRING);
            // fetch JSONObject named employee
            JSONObject employee = obj.getJSONObject("employee");
            // get employee name and salary
            name = employee.getString("name");
            salary = employee.getString("salary");
            // set employee name and salary in TextView's
            tv1.setText("Name: " + name);
            tv2.setText("\tSalary: " + salary);
        }
        catch (JSONException e)
        {
            e.printStackTrace();
        }
    }
}
```

OUTPUT



RESULT:

The required output has been obtained and verified.

EX.NO: 22
DATE:15.03.2022

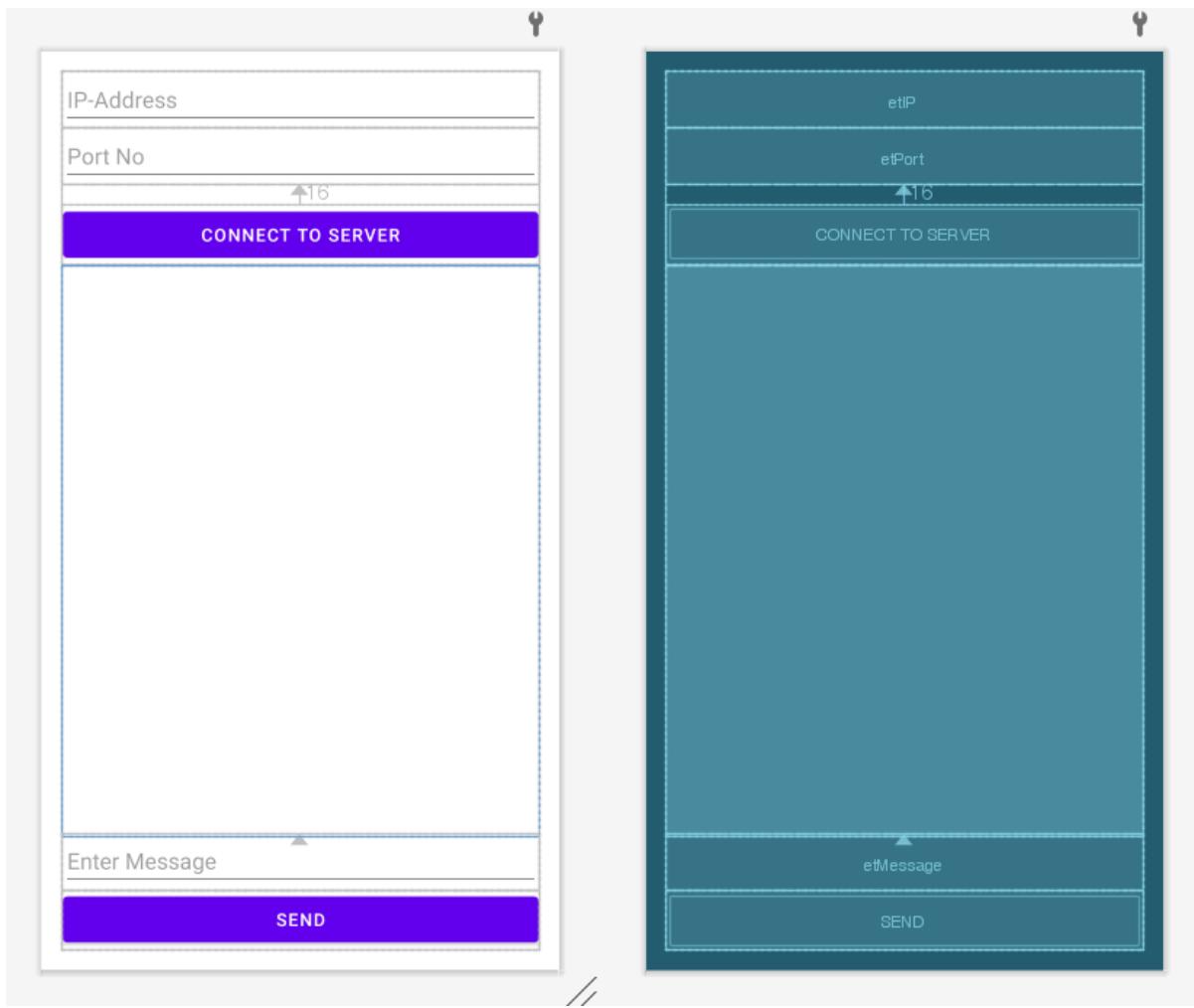
SOCKET PROGRAMMING

AIM:

To implement Socket programming by using Android Studio.

DESIGN VIEW

SERVER-DESIGN:



SERVER-XML:

```
<?xml version = "1.0" encoding = "utf-8"?>
<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 = "match_parent"
    android:layout_margin = "16dp"
    tools:context = ".MainActivity">
    <TextView
        android:id = "@+id/tvIP"
        android:layout_width = "wrap_content"
        android:layout_height = "wrap_content"
        android:textAppearance = "@style/Base.TextAppearance.AppCompat.Medium" />
    <TextView
        android:id = "@+id/tvPort"
        android:layout_width = "wrap_content"
        android:layout_height = "wrap_content"
        android:layout_below = "@+id/tvIP"
        android:textAppearance = "@style/Base.TextAppearance.AppCompat.Medium" />
    <TextView
        android:id = "@+id/tvConnectionStatus"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_below = "@+id/tvPort"
        android:textAppearance = "@style/Base.TextAppearance.AppCompat.Medium" />
    <TextView
        android:id = "@+id/tvMessages"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_above = "@+id/etMessage"
        android:layout_below = "@+id/tvConnectionStatus"
        android:inputType = "textMultiLine"
        android:textAppearance = "@style/Base.TextAppearance.AppCompat.Medium" />
    <EditText
        android:id = "@+id/etMessage"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_above = "@+id/btnSend"
        android:hint = "Enter Message"
        android:inputType = "text" />
    <Button
        android:id = "@+id/btnSend"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_alignParentBottom = "true"
        android:text = "SEND" />
</RelativeLayout>
```

SERVER-MAINACTIVITY.JAVA

```
import android.annotation.SuppressLint;
import android.net.wifi.WifiInfo;
import android.net.wifi.WifiManager;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.PrintWriter;
import java.net.InetAddress;
import java.net.ServerSocket;
import java.net.Socket;
import java.net.UnknownHostException;
import java.nio.ByteBuffer;
import java.nio.ByteOrder;

@SuppressWarnings("SetTextI18n")
public class MainActivity extends AppCompatActivity
{
    ServerSocketserverSocket;
    Thread Thread1 = null;
    TextView tvIP,tvPort;
    TextViewtvMessages; EditTextetMessage;
    Button btnSend;
    public static String SERVER_IP = "";
    public static final int SERVER_PORT = 8080;
    String message;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tvIP = findViewById(R.id.tvIP);
        tvPort = findViewById(R.id.tvPort);
        tvMessages = findViewById(R.id.tvMessages);
        etMessage = findViewById(R.id.etMessage);
        btnSend = findViewById(R.id.btnSend);
        try
        {
            SERVER_IP = getLocalIpAddress();
        }
```

```

        catch (UnknownHostException e)
        {
            e.printStackTrace();
        }
        Thread1 = new Thread(new Thread1());
        Thread1.start();
    btnSend.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View v)
        {
            message = etMessage.getText().toString().trim();
            if (!message.isEmpty())
                new Thread(new Thread3(message)).start();
        }
    });
}
private String getLocalIpAddress() throws UnknownHostException
{
    WifiManager wifiManager = (WifiManager)
        getApplicationContext().getSystemService(WIFI_SERVICE);
    assert wifiManager != null;
    WifiInfo wifiInfo = wifiManager.getConnectionInfo();
    int ipInt = wifiInfo.getIpAddress();
    return
        InetAddress.getByAddress(ByteBuffer.allocate(4).order(ByteOrder.LITTLE_ENDIAN).putInt(ipInt).array()).getHostAddress();
}
private PrintWriter output;
private BufferedReader input;
class Thread1 implements Runnable
{
    @Override
    public void run()
    {
        Socket socket; try
        {
            serverSocket = new ServerSocket(SERVER_PORT);
            runOnUiThread(new Runnable()
            {
                @Override
                public void run()
                {
                    tvMessages.setText("Not connected");
                    tvIP.setText("IP: " + SERVER_IP);
                    tvPort.setText("Port: " + String.valueOf(SERVER_PORT));
                }
            });
        }
    }
}

```

```

        }
    });
    try
    {
        socket = serverSocket.accept();
        output = new PrintWriter(socket.getOutputStream());
        input = new BufferedReader(new InputStreamReader(socket.getInputStream()));
        runOnUiThread(new Runnable()
        {
            @Override
            public void run()
            {
                tvMessages.setText("Connected\n");
            }
        });
        new Thread(new Thread2()).start();
    }
    catch (IOException e)
    {
        e.printStackTrace();
    }
}
catch (IOException e)
{
    e.printStackTrace();
}
}
private class Thread2 implements Runnable
{
    @Override
    public void run()
    {
        while (true)
        {
            try
            {
                final String message = input.readLine();
                if (message != null)
                {
                    runOnUiThread(new Runnable()
                    {
                        @Override
                        public void run()
                        {
                            tvMessages.append("client:" + message + "\n");
                        }
                    });
                }
            }
        }
    }
}

```

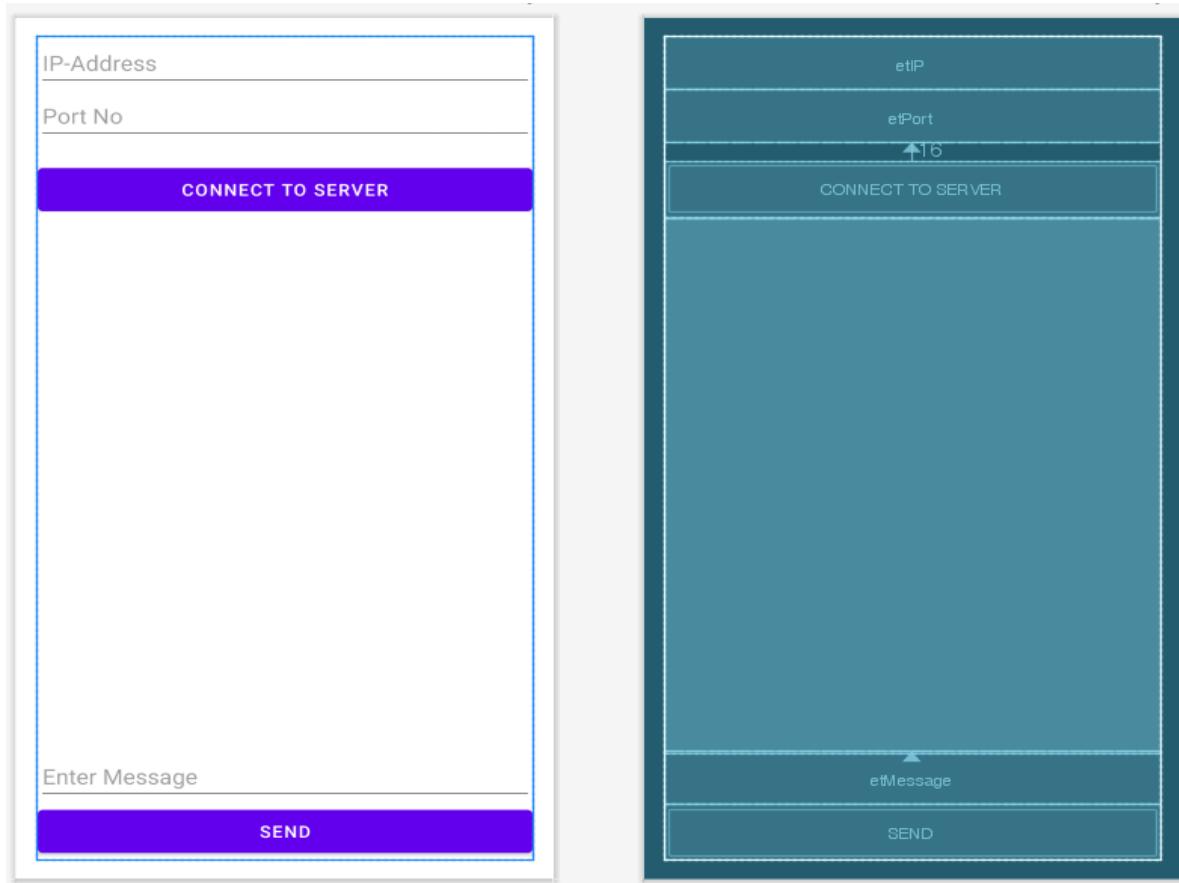
```
        });
    }
    else
    {
        Thread1 = new Thread(new Thread1());
        Thread1.start();
        return;
    }
}
catch (IOException e)
{
    e.printStackTrace();
}
}
}
}

class Thread3 implements Runnable
{
    private String message;
    Thread3(String message)
    {
        this.message = message;
    }
    @Override
    public void run()
    {
        output.write(message);
        output.flush();
    }
    runOnUiThread(new Runnable()
    {
        @Override
        public void run()
        {
            tvMessages.append("server: " + message + "\n");
            etMessage.setText("");
        }
    });
}
}
```

SERVER-MANIFEST.XML:

```
<uses-permission android:name = "android.permission.ACCESS_WIFI_STATE" />
<uses-permission android:name = "android.permission.ACCESS_NETWORK_STATE" />
<uses-permission android:name = "android.permission.INTERNET"/>
```

CLIENT DESIGN:



CLIENT-XML:

```
<?xml version = "1.0" encoding = "utf-8"?>
<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 = "match_parent"
    android:layout_margin = "16dp"
    tools:context = ".MainActivity">
    <EditText
        android:id = "@+id/etIP"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:hint = "IP-Address"
        android:inputType = "text" />
    <EditText
        android:id = "@+id/etPort"
        android:layout_width = "match_parent"
```

```

        android:layout_height = "wrap_content"
        android:layout_below = "@+id/etIP"
        android:hint = "Port No"
        android:inputType = "number" />
    <Button
        android:id = "@+id	btnConnect"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_below = "@+id/etPort"
        android:layout_gravity = "center"
        android:layout_marginTop = "16dp"
        android:text = "Connect To Server" />
    <TextView
        android:id = "@+id/tvMessages"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_above = "@+id/etMessage"
        android:layout_below = "@+id	btnConnect"
        android:inputType = "textMultiLine"
        android:textAppearance = "@style/Base.TextAppearance.AppCompat.Medium" />
    <EditText
        android:id = "@+id/etMessage"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_above = "@+id	btnSend"
        android:hint = "Enter Message"
        android:inputType = "text" />
    <Button
        android:id = "@+id	btnSend"
        android:layout_width = "match_parent"
        android:layout_height = "wrap_content"
        android:layout_alignParentBottom = "true" android:text = "SEND" />
</RelativeLayout>

```

CLIENT-MAINACTIVITY.JAVA:

```

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.PrintWriter;

```

```

import java.net.Socket;
@SuppressLint("SetTextI18n")
public class MainActivity extends AppCompatActivity
{
    Thread Thread1 = null;
    EditText etIP, etPort;
    TextView tvMessages;
    EditText etMessage;
    Button btnSend;
    String SERVER_IP; int SERVER_PORT;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        etIP = findViewById(R.id.etIP);
        etPort = findViewById(R.id.etPort);
        tvMessages = findViewById(R.id.tvMessages);
        etMessage = findViewById(R.id.etMessage);
        btnSend = findViewById(R.id.btnSend);
        Button btnConnect = findViewById(R.id.btnConnect);
        btnConnect.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                tvMessages.setText("");
                SERVER_IP = etIP.getText().toString().trim();
                SERVER_PORT = Integer.parseInt(etPort.getText().toString().trim());
                Thread1 = new Thread(new Thread1());
                Thread1.start();
            }
        });
        btnSend.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                String message = etMessage.getText().toString().trim();
                if (!message.isEmpty())
                {
                    new Thread(new Thread3(message)).start();
                }
            }
        });
    }
}

```

```

private PrintWriter output;
private BufferedReader input;
class Thread1 implements Runnable
{
public void run()
{
    Socket socket;
    try
    {
        socket = new Socket(SERVER_IP, SERVER_PORT);
        output = new PrintWriter(socket.getOutputStream());
        input = new BufferedReader(new InputStreamReader(socket.getInputStream()));
        runOnUiThread(new Runnable()
        {
            @Override
            public void run()
            {
                tvMessages.setText("Connected\n");
            }
        });
        new Thread(new Thread2()).start();
    }
    catch (IOException e)
    {
        e.printStackTrace();
    }
}
class Thread2 implements Runnable
{
    @Override
    public void run()
    {
        while (true)
        {
            try
            {
                final String message = input.readLine();
                if (message != null)
                {
runOnUiThread(new Runnable()
{
    @Override
    public void run()
    {
        tvMessages.append("server: " + message + "\n");
    }
}

```

CLIENT-MANIFEST.XML:

```
<uses-permission android:name = "android.permission.INTERNET" />
<uses-permission android:name = "android.permission.ACCESS_NETWORK_STATE" />
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

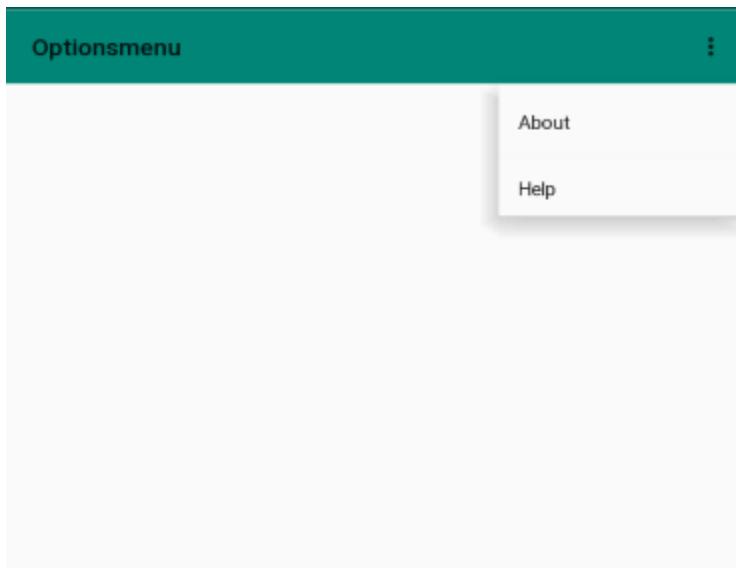
EX.NO: 23
DATE:16.03.2022

OPTION MENU

AIM:

To implement options menu by using Android Studio.

DESIGN VIEW



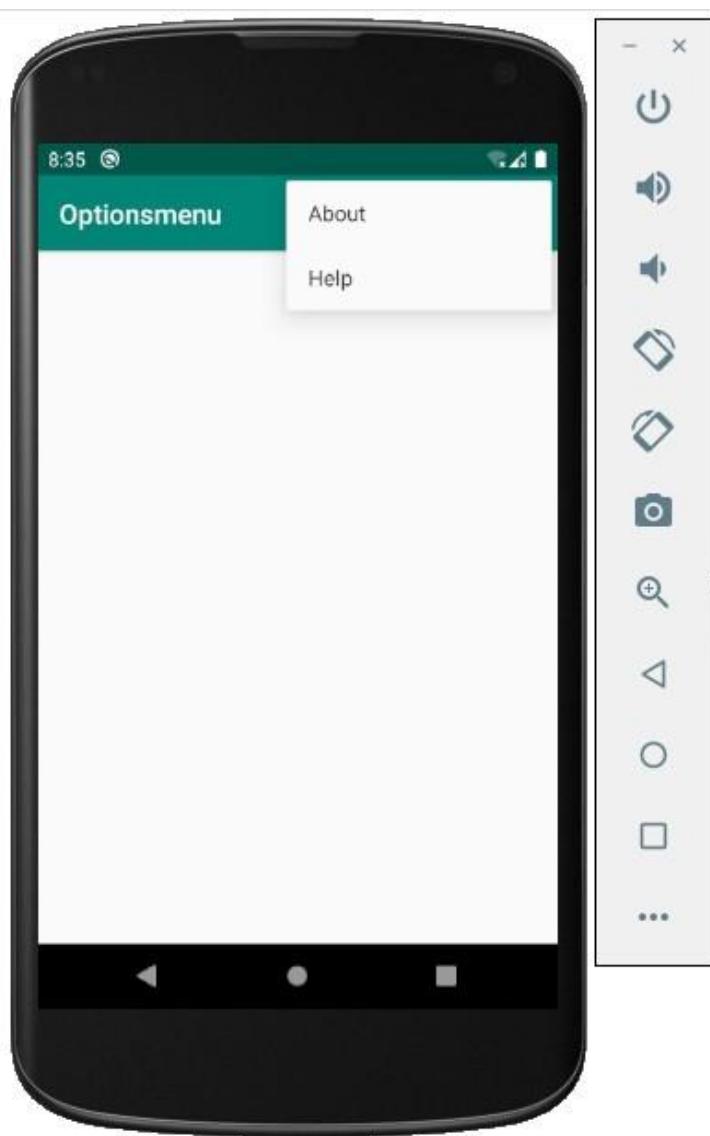
ACTIVITY_MAIN.XML

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    xmlns:tools="http://schemas.android.com/tools"
    tools:context="com.example.optionsmenu.MainActivity">
    <item android:id="@+id/about"
        android:title="About"
        />
    <item android:id="@+id/help"
        android:title="Help"
        />
</menu>
```

MAINACTIVITY.JAVA

```
package com.example.optionsmenu;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu)
    {
        getMenuInflater().inflate(R.menu.options, menu);
        return super.onCreateOptionsMenu(menu);
    }
    @Override
    public boolean onOptionsItemSelected(@NonNullMenuItem item)
    {
        int id = item.getItemId();
        switch (id)
        {
            case R.id.about:
                Toast.makeText(getApplicationContext(), "About menu item pressed",
                        Toast.LENGTH_SHORT).show();
                break;
            case R.id.help:
                Toast.makeText(getApplicationContext(), "Help menu item pressed",
                        Toast.LENGTH_SHORT).show();
                break;
        }
        return super.onOptionsItemSelected(item);
    }
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

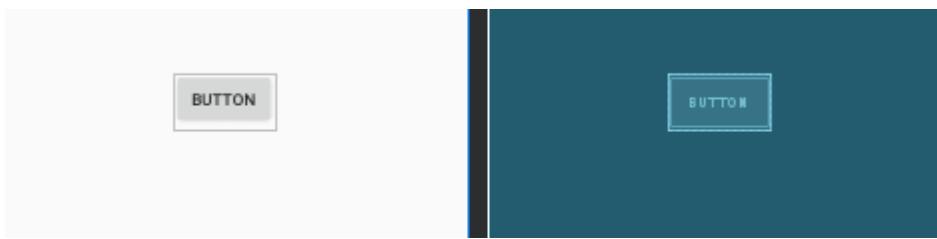
EX.NO: 24
DATE:16.03.2022

CONTEXT MENU

AIM:

To implement Context menu from Android Studio.

DESIGN VIEW



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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

```
tools:layout_editor_absoluteX="156dp"
tools:layout_editor_absoluteY="124dp" />

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

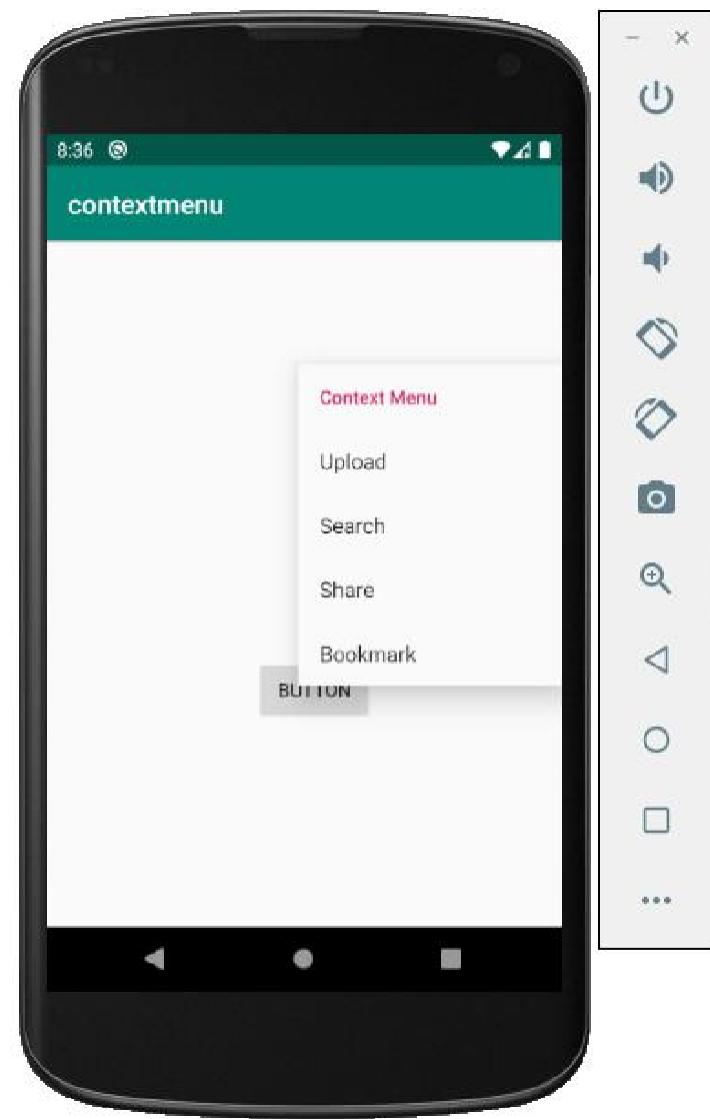
MAINACTIVITY.JAVA

```
package com.example.contextmenu;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity
{
    Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button=(Button)findViewById(R.id.button);
        registerForContextMenu(button);
    }
    public void onCreateContextMenu(ContextMenu menu, View v,
                                   ContextMenu.ContextMenuInfo menuInfo)
    {
        super.onCreateContextMenu(menu, v, menuInfo);
        menu.setHeaderTitle("Context Menu");
        menu.add(0, v.getId(), 0, "Upload");
        menu.add(0, v.getId(), 1, "Search");
        menu.add(0, v.getId(), 2, "Share");
        menu.add(0, v.getId(), 3, "Bookmark");
        super.onCreateContextMenu(menu, v, menuInfo);
    }
}
```

```
public boolean onContextItemSelected(@NonNullMenuItem item)
{
    Toast.makeText(this, "Selected Item: " + item.getTitle(), Toast.LENGTH_SHORT).show();
    return super.onContextItemSelected(item);
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

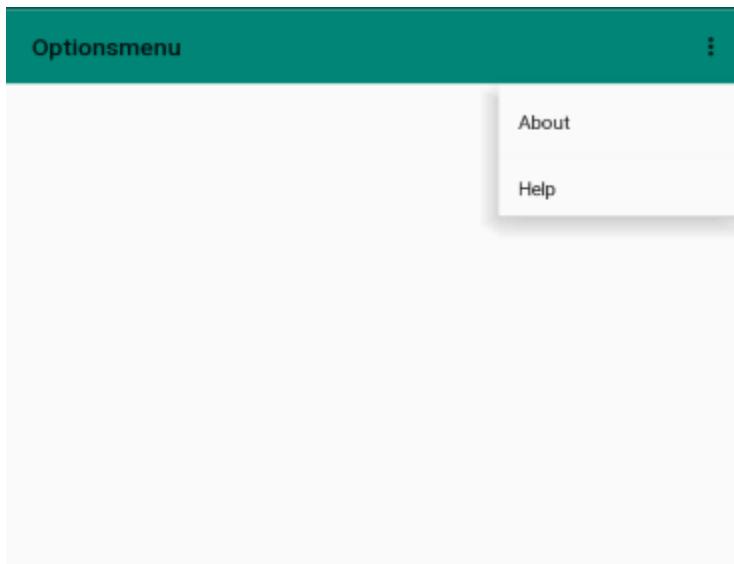
EX.NO: 25
DATE:17.03.2022

POPUP MENU

AIM:

To implement Pop-up menu by using Android Studio.

DESIGN VIEW



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">

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="show"
        android:text="Button"
```

```
tools:layout_editor_absoluteX="165dp"
tools:layout_editor_absoluteY="155dp" />

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

POPUP.XML:

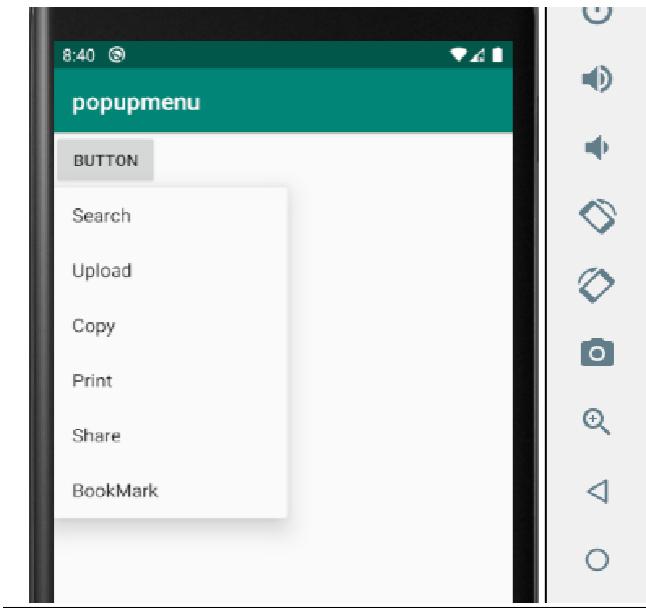
```
<menu xmlns:android="http://schemas.android.com/apk/res/android">
<item android:id="@+id/search_item"
    android:title="Search" />
<item android:id="@+id/upload_item"
    android:title="Upload" />
<item android:id="@+id/copy_item"
    android:title="Copy" />
<item android:id="@+id/print_item"
    android:title="Print" />
<item android:id="@+id/share_item"
    android:title="Share" />
<item android:id="@+id/bookmark_item"
    android:title="BookMark" />
</menu>
```

MAINACTIVITY.JAVA

```
package com.example.popupmenu;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.PopupMenu;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity implements
PopupMenu.OnMenuItemClickListener
{
    Button button;
    PopupMenu pm;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```
        button=findViewById(R.id.button);
    }
    public void show(View v)
    {
        pm = new PopupMenu(this, v);
        pm.setOnMenuItemClickListener(this);
        pm.inflate(R.menu.popup);
        pm.show();
    }
    public boolean onMenuItemClick(MenuItem item)
    {
        Toast.makeText(this, "Selected Item: " +item.getTitle(),Toast.LENGTH_SHORT).show();
        return true;
    }
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

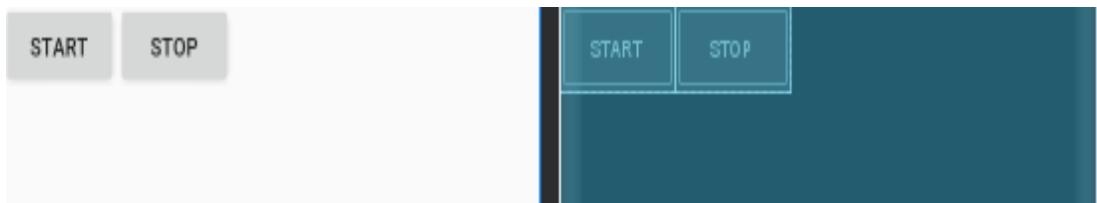
EX.NO: 26
DATE:17.03.2022

ANDROID SERVICES

AIM:

To implement Android Services by using Android Studio.

DESIGN VIEW



ACTIVITY_MAIN.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
```

```
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="onClick"
        android:text="start"
        tools:layout_editor_absoluteX="100dp"
        tools:layout_editor_absoluteY="67dp" />
```

```
    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="onClick"
        android:text="stop"
        tools:layout_editor_absoluteX="100dp"
```

```
tools:layout_editor_absoluteY="163dp" />
</LinearLayout>
```

MAINACTIVITY.JAVA

```
package com.example.services;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity implements View.OnClickListener
{
    Button b1,b2;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=findViewById(R.id.button);
        b2=findViewById(R.id.button2);
        b1.setOnClickListener(this);
        b2.setOnClickListener(this);
    }
    public void onClick(View view)
    {
        if(view==b1)
        {
            startService(new Intent(this,MyService.class));
        }
        else if(view==b2)
        {
            stopService(new Intent(this,MyService.class));
        }
    }
}
```

myservice.java

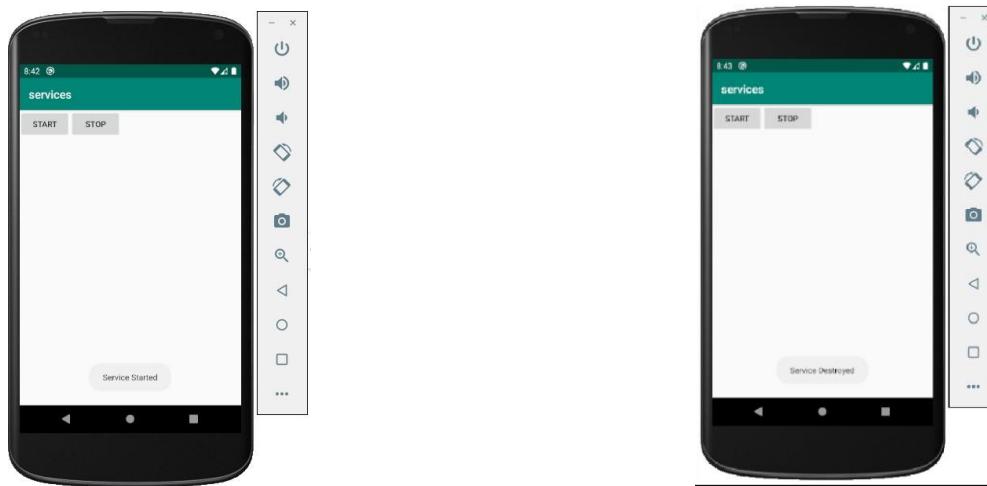
```
package com.example.services;
import android.app.Service;
import android.content.Intent;
```

```

import android.os.IBinder;
import android.widget.Toast;
public class MyService extends Service
{
    @Override
    public int onStartCommand(Intent intent, int flags, int startId)
    {
        Toast.makeText(getApplicationContext(), "Service Started",Toast.LENGTH_SHORT).show();
        return super.onStartCommand(intent, flags, startId);
    }
    @Override
    public void onDestroy()
    {
        super.onDestroy();
        Toast.makeText(getApplicationContext(), "Service Destroyed",Toast.LENGTH_SHORT).show();
    }
    @Override
    public IBinder onBind(Intent intent)
    {
        // TODO: Return the communication channel to the service.
        throw new UnsupportedOperationException("Not yet implemented");
    }
}

```

OUTPUT:



RESULT:

The required output has been obtained and verified.

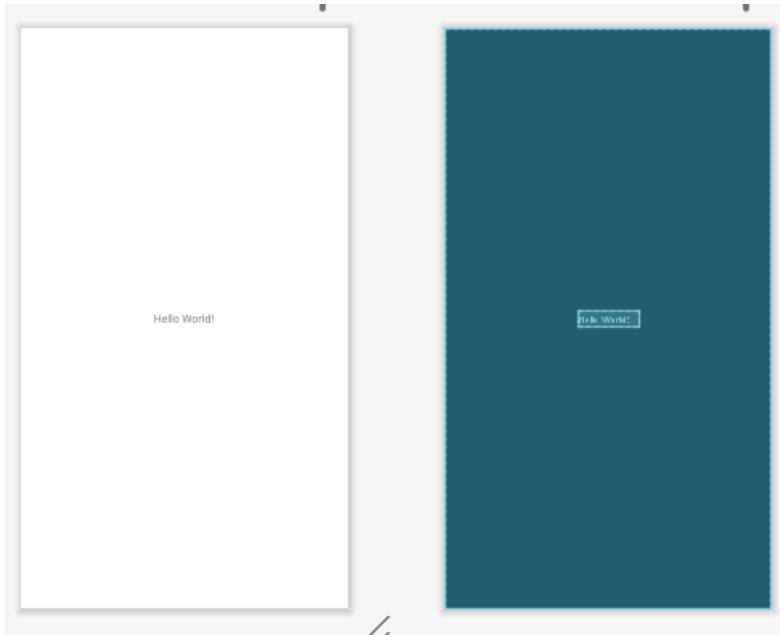
EX.NO: 27
DATE:22.03.2022

ACTIVITY WITHOUT TITLE BAR

AIM:

To implement activity without title bar by using Android studio.

DESIGN VIEW:

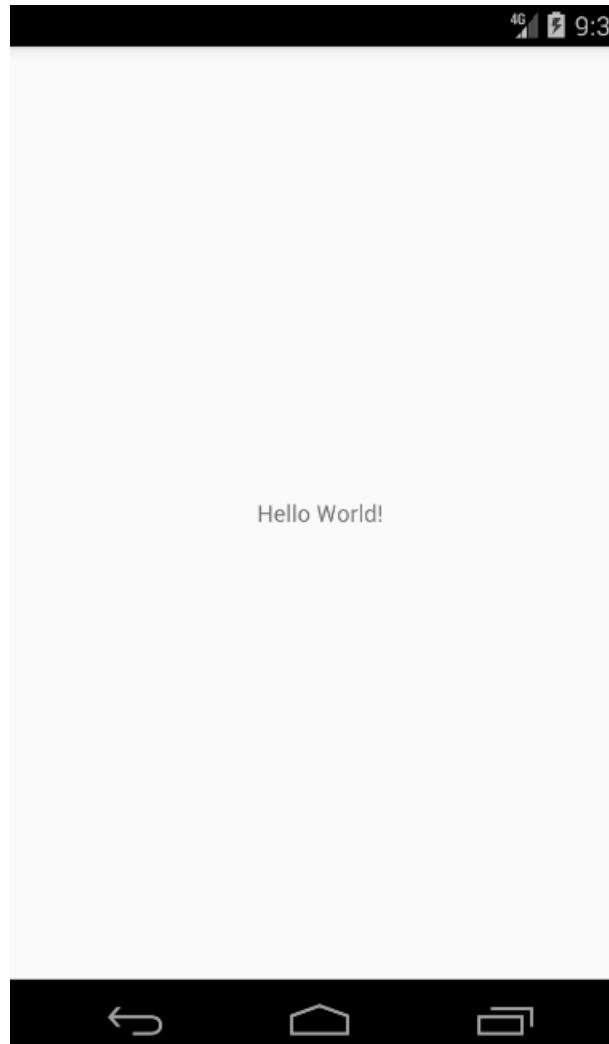


MAIN ACTIVITY.JAVA

```
package com.example.titlebar;
import android.app.Activity;
import android.os.Bundle;
import android.view.Window;

public class MainActivity extends Activity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        requestWindowFeature(Window.FEATURE_NO_TITLE);
        setContentView(R.layout.activity_main);
    }
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

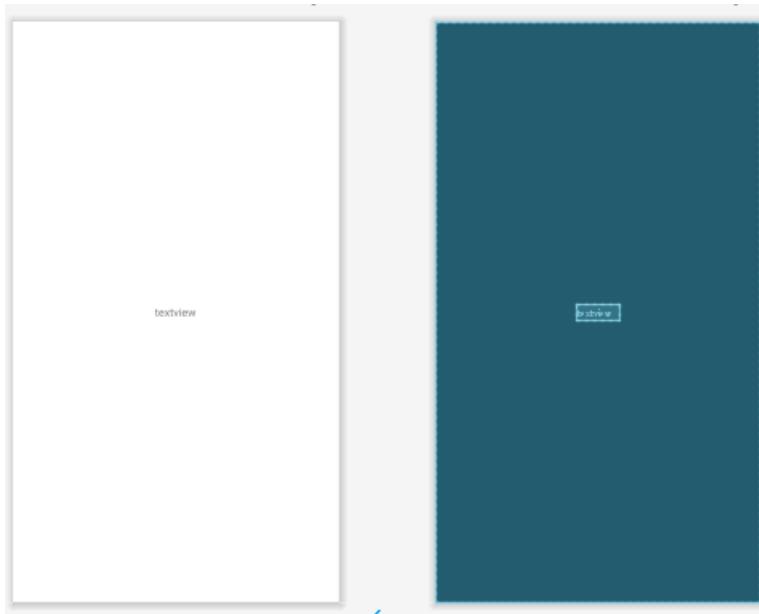
EX.NO: 28
DATE:22.03.2022

TEXTVIEW CONTROL

AIM:

To implement textView control by using Android studio

DESIGN VIEW



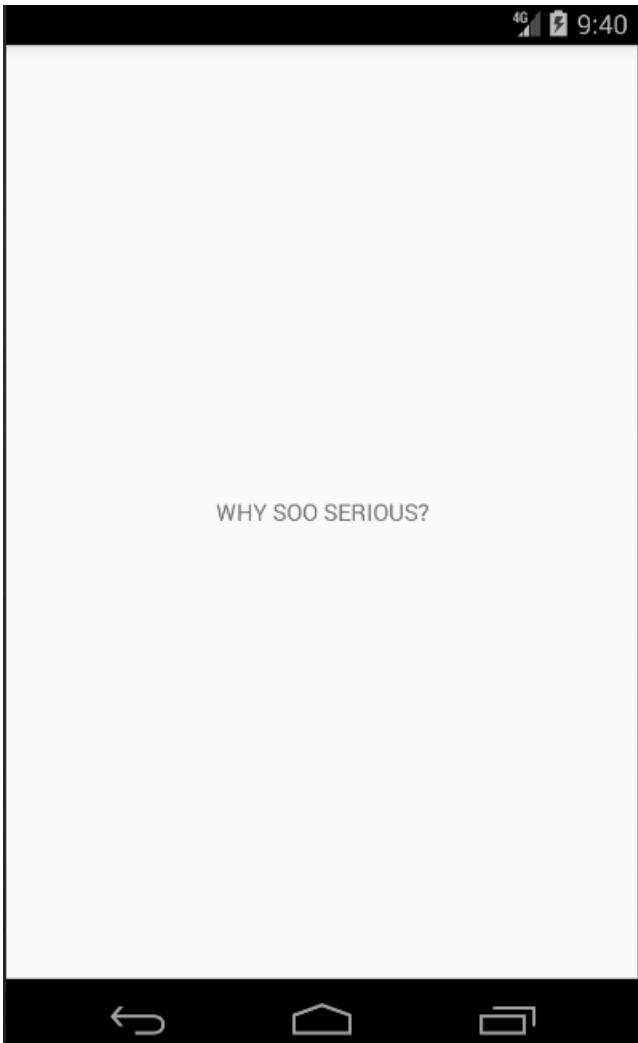
MAIN ACTIVITY.JAVA

```
package com.example.myapplication;
package com.example.first;
import android.app.Activity;
import android.widget.*;
import android.os.Bundle;

public class MainActivity extends Activity
{
    TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv = (TextView) findViewById(R.id.textView1);
        tv.setText("WHY SOO SERIOUS?");
    }
}
```

}}

OUTPUT



RESULT:

The required output has been obtained and verified.

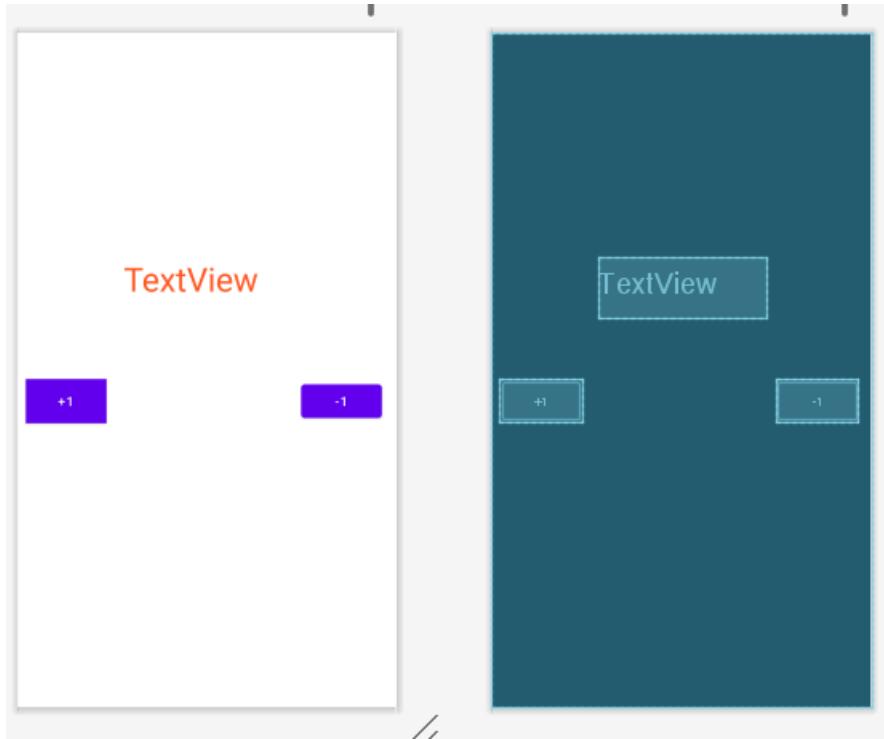
EX.NO: 29
DATE:23.03.2022

COUNTER USING BUTTON CONTROL

AIM:

To implement counter using button control

DESIGN VIEW



ACTIVITY_MAIN.XML

```
<Button  
    android:id="@+id/button2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginStart="106dp"  
    android:layout_marginTop="65dp"  
    android:layout_marginEnd="69dp"  
    android:layout_marginBottom="308dp"  
    android:text="-1"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toEndOf="@+id/button"
```

```

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

<TextView
    android:id="@+id/textView"
    android:layout_width="183dp"
    android:layout_height="68dp"
    android:layout_marginStart="114dp"
    android:layout_marginTop="242dp"
    android:layout_marginEnd="114dp"
    android:layout_marginBottom="421dp"
    android:text="TextView"
    android:textColor="#FF5722"
    android:textSize="36sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="60dp"
    android:layout_marginTop="65dp"
    android:layout_marginEnd="106dp"
    android:layout_marginBottom="308dp"
    android:background="#E91E63"
    android:text="+1"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/button2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />

```

MAIN ACTIVITY.JAVA

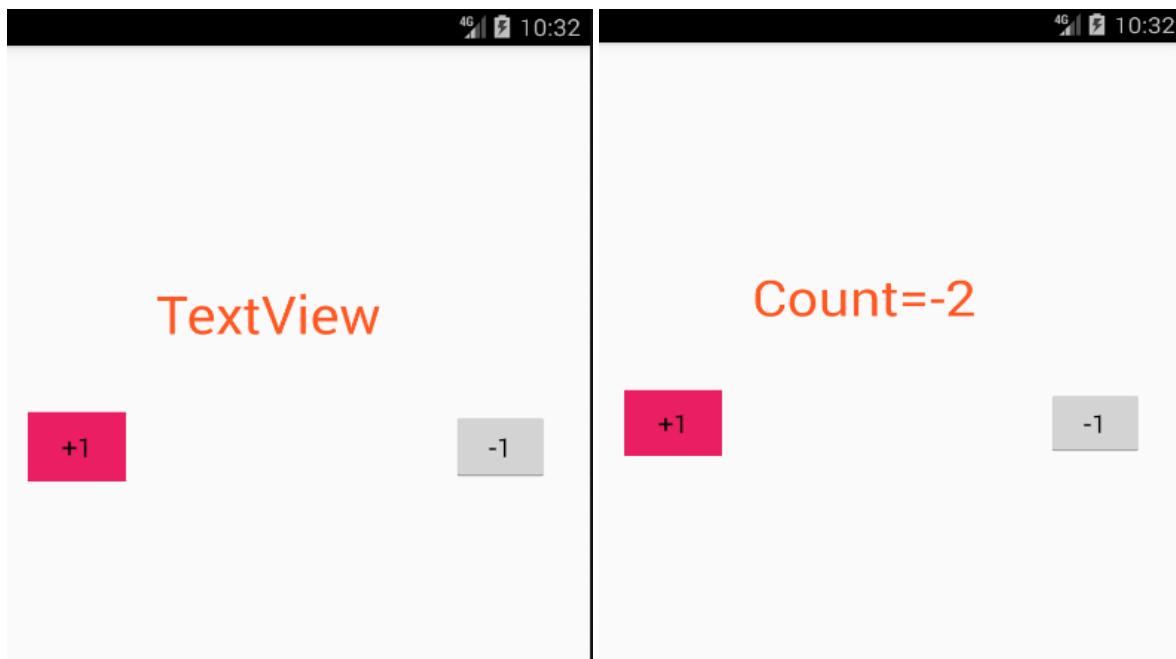
```

package com.example.counter;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends Activity
{
    int count=0;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);

```

```
setContentView(R.layout.activity_main);
final TextView tv=(TextView)findViewById(R.id.textView);
Button b1=(Button)findViewById(R.id.button);
Button b2=(Button)findViewById(R.id.button2);
b1.setOnClickListener(new OnClickListener()
{
    public void onClick(View v)
    {
        count++;
        tv.setText("Count="+count);
    }
});
b2.setOnClickListener(new OnClickListener()
{
    public void onClick(View v)
    {
        count--;
        tv.setText("Count="+count);
    }
});
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

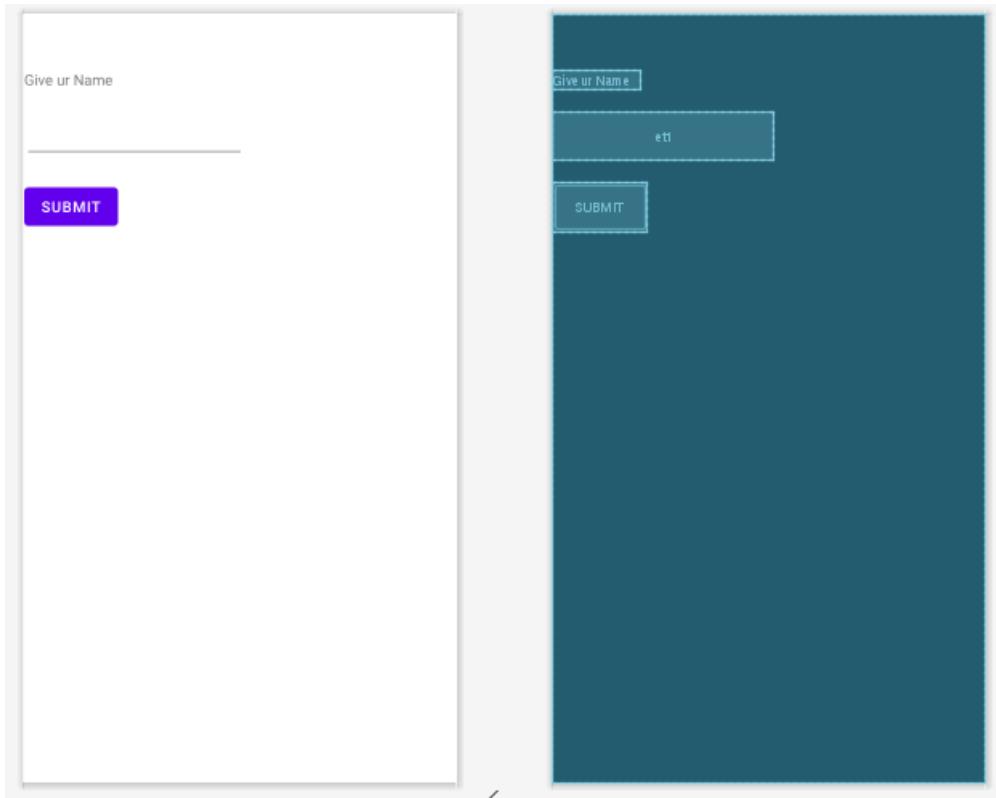
EX.NO: 30
DATE:23.03.2022

EDIT TEXT

AIM:

To implement a edit text by using Android studio

DESIGN VIEW



ACTIVITY_MAIN.XML

```
<TextView  
    android:id="@+id/textView1"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_alignParentLeft="true"  
    android:layout_alignParentTop="true"  
    android:layout_marginLeft="110dp"  
    android:layout_marginTop="51dp"  
    android:text="Give ur Name"  
    android:textAppearance="?android:attr/textAppearanceSmall" />
```

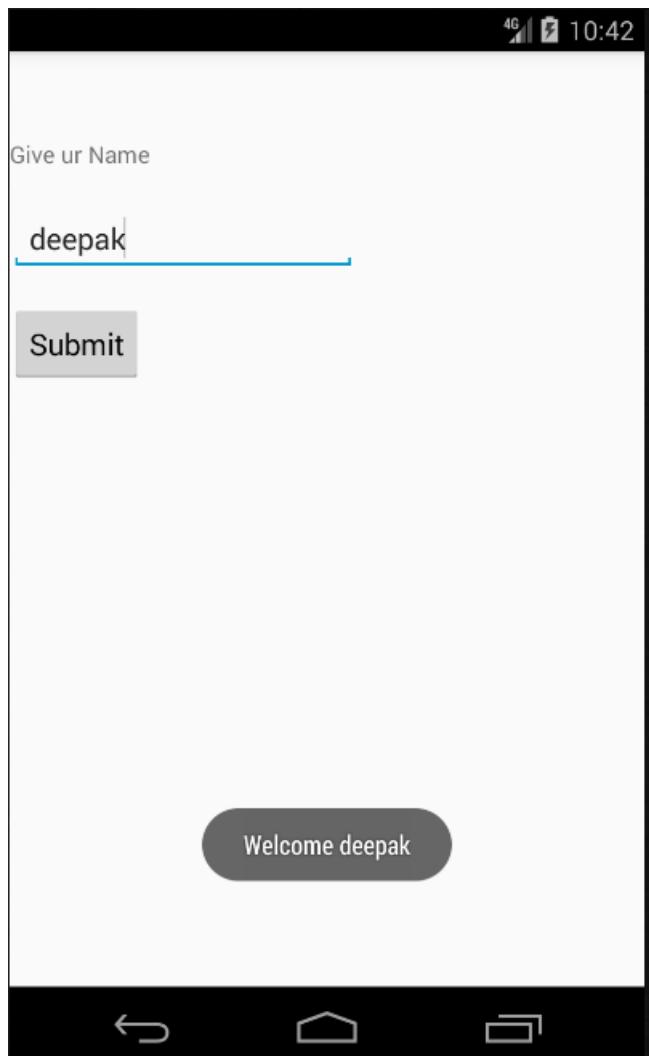
```
<EditText  
    android:id="@+id/et1"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_below="@+id/textView1"  
    android:layout_centerHorizontal="true"  
    android:layout_marginTop="45dp"  
    android:ems="10" />
```

```
<Button  
    android:id="@+id/b1"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_below="@+id/et1"  
    android:layout_centerHorizontal="true"  
    android:layout_marginTop="56dp"  
    android:onClick="show"  
    android:text="Submit" />
```

MAIN ACTIVITY.JAVA

```
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
public class MainActivity extends Activity  
{  
    Button b;  
    EditText t;  
    @Override  
    protected void onCreate(Bundle savedInstanceState)  
    {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        b=(Button)findViewById(R.id.b1);  
        t=(EditText)findViewById(R.id.et1);  
    }  
    public void show(View v)  
    {  
        Toast.makeText(getApplicationContext(),"Welcome  
"+t.getText(),Toast.LENGTH_LONG).show();  
    }  
}
```

OUTPUT:



RESULT:

The required output has been obtained and verified.

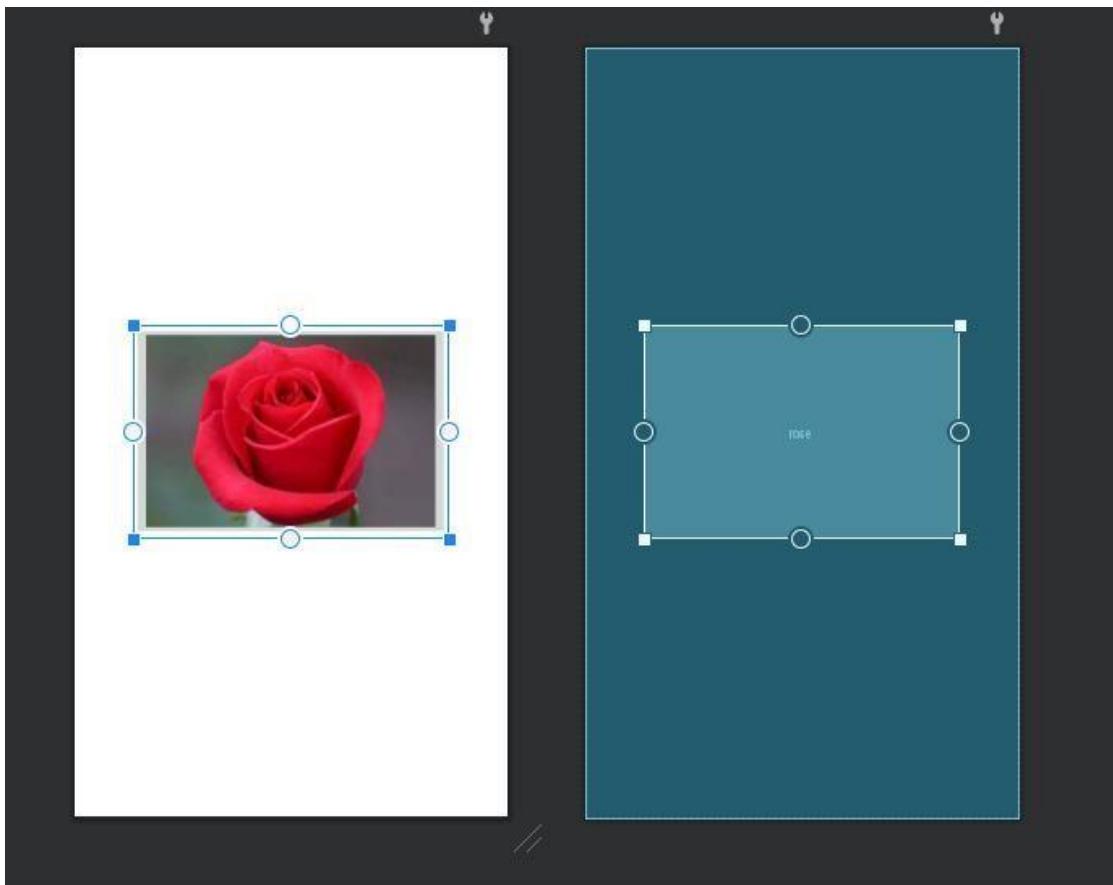
EX.NO: 31
DATE:24.03.2022

IMAGE BUTTON CONTROL

AIM:

To implement image button control by using Android studio

DESIGN VIEW



ACTIVITY_MAIN.XML

```
<ImageButton  
    android:id="@+id/rose"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_alignParentLeft="true"  
    android:layout_alignParentTop="true"  
    android:onClick="show"  
    android:padding="20dp"/>
```

```
        android:src="@drawable/rose1" />
```

MAIN ACTIVITY.JAVA

```
package com.example.imagebutton;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;
import android.widget.Toast;
public class MainActivity extends Activity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ImageButton i = (ImageButton) findViewById(R.id.rose);
    }
    public void show(View v)
    {
        Toast.makeText(this,"Rose Button",Toast.LENGTH_LONG).show();
    }
}
```

OUTPUT



RESULT:

The required output has been obtained and verified.

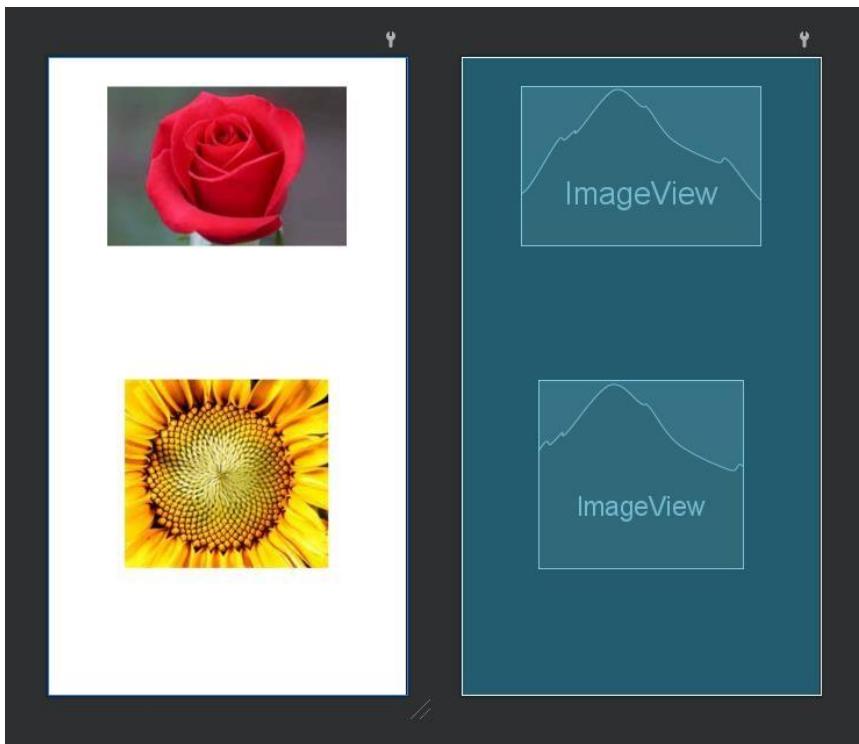
EX.NO: 32
DATE:24.03.2022

IMAGE VIEW

AIM

To implement image view by using Android studio

DESIGN VIEW



ACTIVITY_MAIN.XML

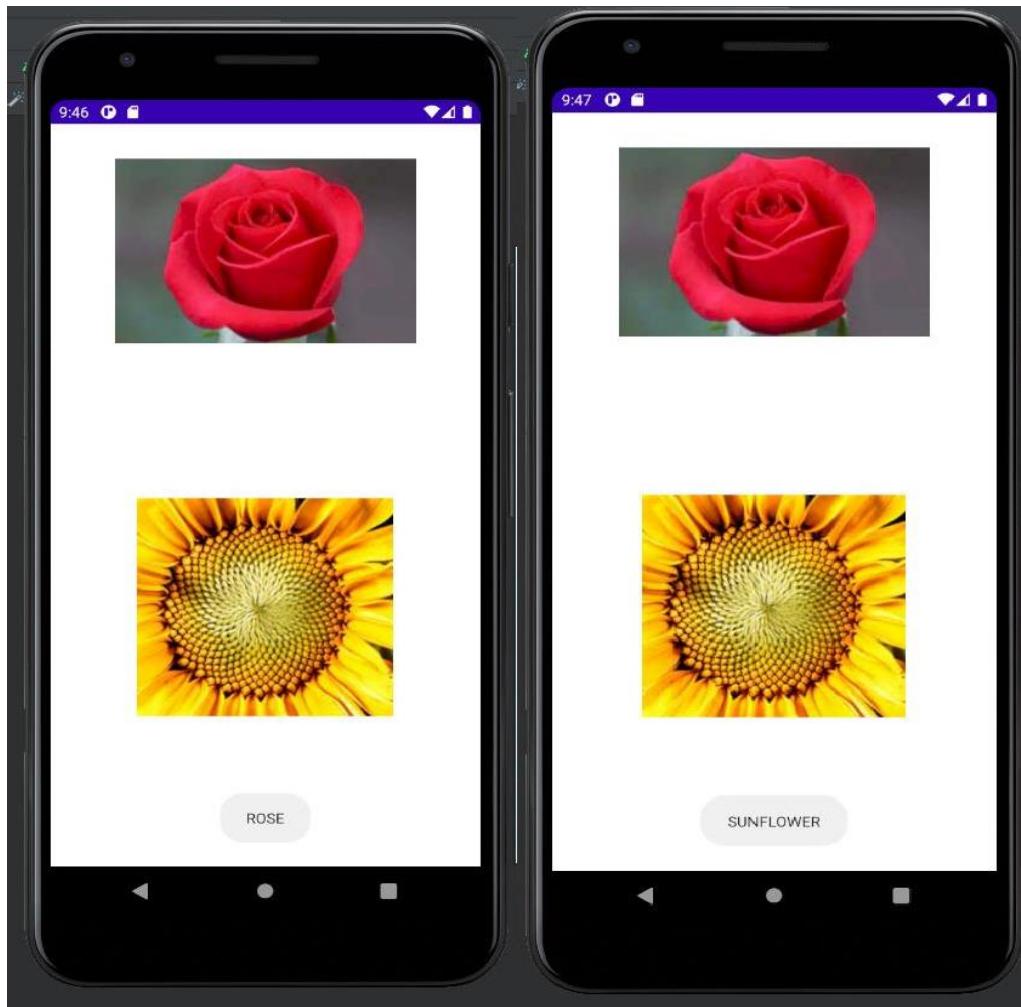
```
<ImageView  
    android:id="@+id/rose"  
    android:layout_width="fill_parent"  
    android:layout_height="200dp"  
    android:onClick="f1click"  
    android:scaleType="fitXY"  
    android:src="@drawable/rose" />  
<ImageView  
    android:id="@+id/sunflower"  
    android:layout_width="fill_parent"  
    android:layout_height="200dp"  
    android:layout_alignParentRight="true"
```

```
        android:layout_below="@+id/rose"
        android:onClick="f2click"
        android:scaleType="fitXY"
        android:src="@drawable/sunflower" />
```

MAIN ACTIVITY.JAVA

```
package com.example.images;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.Toast;
public class MainActivity extends Activity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ImageView f1 = (ImageView) findViewById(R.id.rose);
        ImageView f2 = (ImageView) findViewById(R.id.sunflower);
    }
    public void f1click(View view)
    {Toast.makeText(getApplicationContext(), "ROSE", Toast.LENGTH_LONG).show(); }
    public void f2click(View view)
    {Toast.makeText(getApplicationContext(), "SUNFLOWER",
    Toast.LENGTH_LONG).show();
    }
```

OUTPUT



RESULT:

The required output has been obtained and verified.