**1] AIM : Demonstrate Activity LifeCycle**

**XML CODE** :

<?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="com.example.assignment1a.MainActivity">  
  
 <TextView  
 android:layout\_width="118dp"  
 android:layout\_height="63dp"  
 android:fontFamily="sans-serif-black"  
 android:text="Activity Life Cyc;le"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

JAVA CODE :

package com.example.assignment1a;  
  
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*("lifecycle","onCreate invoked");  
 }  
 @Override  
 protected void onStart() {  
 super.onStart();  
 Log.*d*("lifecycle","onStart invoked");  
 }  
 @Override  
 protected void onResume() {  
 super.onResume();  
 Log.*d*("lifecycle","onResume invoked");  
 }  
 @Override  
 protected void onPause() {  
 super.onPause();  
 Log.*d*("lifecycle","onPause invoked");  
 }  
 @Override  
 protected void onStop() {  
 super.onStop();  
 Log.*d*("lifecycle","onStop invoked");  
 }  
 @Override  
 protected void onRestart() {  
 super.onRestart();  
 Log.*d*("lifecycle","onRestart invoked");  
 }  
 @Override  
 protected void onDestroy() {  
 super.onDestroy();  
 Log.*d*("lifecycle","onDestroy invoked");  
 }  
}

**2] Explain Arithmetic operations using Table Layout**

XML CODE :

<?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/et1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="76dp"  
 android:ems="10"  
 android:hint="enter first number"  
 android:inputType="textPersonName"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/et2"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
 <EditText  
 android:id="@+id/et2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="321dp"  
 android:ems="10"  
 android:hint="enter second number"  
 android:inputType="textPersonName"  
 android:minHeight="48dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/btnadd"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="51dp"  
 android:layout\_marginTop="42dp"  
 android:text="+"  
 app:layout\_constraintStart\_toStartOf="@+id/et2"  
 app:layout\_constraintTop\_toBottomOf="@+id/et2" />  
  
 <TextView  
 android:id="@+id/tvans"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="160dp"  
 android:layout\_marginTop="88dp"  
 android:text="answer"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/btnsub"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="2dp"  
 android:layout\_marginBottom="7dp"  
 android:text="-"  
 app:layout\_constraintBottom\_toTopOf="@+id/btnmultiply"  
 app:layout\_constraintStart\_toStartOf="@+id/btnmultiply" />  
  
 <Button  
 android:id="@+id/btnmultiply"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="1dp"  
 android:text="\*"  
 app:layout\_constraintBottom\_toTopOf="@+id/btndiv"  
 app:layout\_constraintEnd\_toEndOf="@+id/btndiv" />  
 <Button  
 android:id="@+id/btndiv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="149dp"  
 android:layout\_marginTop="112dp"  
 android:layout\_marginBottom="112dp"  
 android:text="/"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/btnadd" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA CODE :**

package com.example.assignment2a;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.Gravity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 EditText e1, e2;  
 TextView t1;  
 Button badd;  
 Button bsub;  
 Button bmultiply;  
 Button bdiv;  
 int a, b, c;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 e1 = findViewById(R.id.*et1*);  
 e2 = findViewById(R.id.*et2*);  
 t1 = findViewById(R.id.*tvans*);  
 badd = findViewById(R.id.*btnadd*);  
 bsub = findViewById(R.id.*btnsub*);

bmultiply= findViewById(R.id.*btnmultiply*);  
 bdiv= findViewById(R.id.*btndiv*);  
 badd.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 a = Integer.*parseInt*(e1.getText().toString());  
 b = Integer.*parseInt*(e2.getText().toString());  
 c = a + b;  
 t1.setText("" + c);  
 Toast t=Toast.*makeText*(MainActivity.this,"Addition="+c,Toast.*LENGTH\_SHORT*);  
 t.setGravity(Gravity.*CENTER*,0,0);  
 t.show();  
 }  
 });  
 bsub.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 a = Integer.*parseInt*(e1.getText().toString());  
 b = Integer.*parseInt*(e2.getText().toString());  
 c = a - b;  
 t1.setText("" + c);  
 }  
 });  
  
 bmultiply.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 a = Integer.*parseInt*(e1.getText().toString());  
 b = Integer.*parseInt*(e2.getText().toString());  
 c = a \* b;  
 t1.setText("" + c);  
 }  
 });  
 bmultiply.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 a = Integer.*parseInt*(e1.getText().toString());  
 b = Integer.*parseInt*(e2.getText().toString());  
 c = a \* b;  
 t1.setText("" + c);  
 }  
 });  
 bdiv.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 a = Integer.*parseInt*(e1.getText().toString());  
 b = Integer.*parseInt*(e2.getText().toString());  
 c = a / b;  
 t1.setText("" + c);  
 }  
 });  
 }  
}

**3]AIM : Implementation of getText() and setText() Methods**

**XML CODE :**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#FFFF8D"  
 tools:context="com.example.assignment3a.MainActivity">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentTop="true"  
 android:text="NAME"  
 android:textSize="20sp"  
 android:layout\_margin="20dp" />  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="20sp"  
 android:text="CLASS"  
 android:layout\_marginTop="38dp"  
 android:layout\_below="@+id/textView"  
 android:layout\_alignLeft="@+id/textView"  
 android:layout\_alignStart="@+id/textView" />  
  
 <EditText  
 android:id="@+id/editName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Enter Name"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignLeft="@+id/editClass"  
 android:layout\_alignStart="@+id/editClass" />

<EditText  
 android:id="@+id/editClass"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Enter Class"  
 android:inputType="textPassword"  
 android:layout\_alignBottom="@+id/textView2"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_marginRight="18dp"  
 android:layout\_marginEnd="18dp" />  
  
 <Button  
 android:id="@+id/buttonSubmit"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"  
 android:layout\_below="@+id/textView2"  
 android:layout\_marginTop="20dp"  
 android:text="SUBMIT" />  
  
 <Button  
 android:id="@+id/buttonReset"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="RESET"  
 android:layout\_alignBaseline="@+id/buttonSubmit"  
 android:layout\_alignBottom="@+id/buttonSubmit"  
 android:layout\_centerHorizontal="true" />  
  
 <TextView  
 android:id="@+id/tvResult"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentBottom="true"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginBottom="143dp"  
 android:textSize="30sp" />  
  
</RelativeLayout>

**JAVA CODE :**

package com.example.assignment3a;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
 // These are the global variables  
 EditText editName, editPassword;  
 TextView result;  
 Button buttonSubmit, buttonReset;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 editName = (EditText) findViewById(R.id.*editName*);  
 editPassword = (EditText) findViewById(R.id.*editClass*);  
 result = (TextView) findViewById(R.id.*tvResult*);  
 buttonSubmit = (Button) findViewById(R.id.*buttonSubmit*);  
 buttonReset = (Button) findViewById(R.id.*buttonReset*);  
 /\*  
 Submit Button  
 \*/  
 buttonSubmit.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 String name = editName.getText().toString();  
 String password = editPassword.getText().toString();  
 result.setText("Name:\t" + name + "\nClass:\t" + password);  
  
 }  
 });  
  
 /\*  
 Reset Button  
 \*/  
 buttonReset.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 editName.setText("");  
 editPassword.setText("");  
 result.setText("");  
 editName.requestFocus();  
 }  
 });  
 }  
}

**4] Create an android application using relative layout.**

**XML CODE** :

<?xml version="1.0" encoding="utf-8"?>  
  
<RelativeLayout  
 android:layout\_width="fill\_parent"  
 android:layout\_height="fill\_parent"  
 xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <Button  
 android:id="@+id/button1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Top Left Button"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentTop="true"/>  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Top Right Button"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentRight="true"/>  
 <Button  
 android:id="@+id/button3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Bottom Left Button"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentBottom="true"/>  
 <Button  
 android:id="@+id/button4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Bottom Right Button"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentBottom="true"/>  
 <Button  
 android:id="@+id/button5"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Middle Button"  
 android:layout\_centerVertical="true"  
 android:layout\_centerHorizontal="true"/>  
  
</RelativeLayout>

**JAVA CODE :**

package com.example.relativelayoutapplication;  
  
import android.os.Bundle;  
import android.app.Activity;  
  
public class MainActivity extends Activity {  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
  
}

**5] AIM : Build Km – meter Conversion App**

**XML CODE :**

<?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:text="KILOMETER TO METER"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.507"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.333" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="METER TO KILOMETER"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.509"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.427" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="292dp"  
 android:layout\_height="78dp"  
 android:hint="ANSWER"  
 android:textSize="24sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.451"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.606" />  
  
 <EditText  
 android:id="@+id/editTextTextPersonName"  
 android:layout\_width="217dp"  
 android:layout\_height="69dp"  
 android:ems="10"  
 android:hint="ENTER VALUE"  
 android:inputType="textPersonName"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.551"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.196" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA CODE** :

package com.example.kmtometerconverter;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
  
public class MainActivity extends AppCompatActivity {  
 Button KMTOM,MTOKM;  
 TextView Result;  
 EditText Value;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 Value=(EditText)findViewById(R.id.*editTextTextPersonName*);  
 KMTOM=(Button)findViewById(R.id.*button*);  
 MTOKM=(Button)findViewById(R.id.*button2*);  
 Result=(TextView)findViewById(R.id.*textView*);  
 KMTOM.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 float input=Float.*parseFloat*(Value.getText().toString());  
 float answer=input\*1000;  
 Result.setText(" "+answer+"METER");  
 }  
 });  
 MTOKM.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 float input=Float.*parseFloat*(Value.getText().toString());  
 float answer=input/1000;  
 Result.setText(" "+answer+"KILOMETER");  
 }  
 });  
 }  
}

**6] Write a program using a Table Layout for our restaurant data entry form; add a set of radio buttons to represent the type of restaurant.**

**Xml code**

<?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/textView13"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Welcome"  
 android:textSize="50sp"  
 app:layout\_constraintHorizontal\_bias="0.464"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <TextView  
 android:id="@+id/dish1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="60dp"  
 android:layout\_marginTop="132dp"  
 android:text="Dish1"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <TextView  
 android:id="@+id/dish2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="3dp"  
 android:layout\_marginTop="21dp"  
 android:text="Dish2"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="@+id/dish1"  
 app:layout\_constraintTop\_toBottomOf="@+id/dish1" />  
  
 <TextView  
 android:id="@+id/dish3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="25dp"  
 android:text="Dish3"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="@+id/dish2"  
 app:layout\_constraintTop\_toBottomOf="@+id/dish2" />  
  
 <TextView  
 android:id="@+id/dish4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="29dp"  
 android:text="Dish4"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="@+id/dish3"  
 app:layout\_constraintTop\_toBottomOf="@+id/dish3" />  
  
 <TextView  
 android:id="@+id/dish5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="32dp"  
 android:layout\_marginEnd="5dp"  
 android:text="Dish5"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="@+id/dish4"  
 app:layout\_constraintTop\_toBottomOf="@+id/dish4" />  
  
 <TextView  
 android:id="@+id/price1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="70dp"  
 android:layout\_marginBottom="65dp"  
 android:text="Price2"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toTopOf="@+id/price3"  
 app:layout\_constraintEnd\_toEndOf="parent" />  
  
 <TextView  
 android:id="@+id/price2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="19dp"  
 android:text="Price2"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="@+id/price1"  
 app:layout\_constraintTop\_toBottomOf="@+id/price1" />  
  
 <TextView  
 android:id="@+id/price3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="4dp"  
 android:layout\_marginTop="94dp"  
 android:layout\_marginBottom="94dp"  
 android:text="Price3"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toTopOf="@+id/dish5"  
 app:layout\_constraintStart\_toStartOf="@+id/price2"  
 app:layout\_constraintTop\_toTopOf="@+id/dish1" />  
  
 <TextView  
 android:id="@+id/price4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="25dp"  
 android:layout\_marginEnd="2dp"  
 android:text="Price4"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="@+id/price3"  
 app:layout\_constraintTop\_toBottomOf="@+id/price3" />  
 MainActi  
  
 <TextView  
 android:id="@+id/price5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="36dp"  
 android:text="Price5"  
 android:textSize="20sp"  
 app:layout\_constraintStart\_toStartOf="@+id/price4"  
 app:layout\_constraintTop\_toBottomOf="@+id/price4" />  
  
 <Button  
 android:id="@+id/btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="34dp"  
 android:layout\_marginBottom="30dp"  
 android:text="Check Out"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent" />  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="32dp"  
 android:ems="10"  
 android:hint="Enter the Dish Name"  
 android:inputType="textPersonName"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toTopOf="@+id/quantity"  
 app:layout\_constraintEnd\_toEndOf="@+id/quantity" />  
  
 <EditText  
 android:id="@+id/quantity"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="28dp"  
 android:ems="10"  
 android:hint="Enter the Quantity"  
 android:inputType="textPersonName"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toTopOf="@+id/btn"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.6"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity.java:**

package com.example.rest1;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
}

**7] Design Calculator in Android**

**Write a program using activity class to show different events.(Onclick,Onlongclick)**

**Xml**

XML CODE:

<?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/et1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="60dp"

android:ems="10"

android:hint="Enter 1st value"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textColorHint="#757575"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/et2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="14dp"

android:ems="10"

android:hint="Enter 2nd value"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textColorHint="#757575"

app:layout\_constraintStart\_toStartOf="@+id/et1"

app:layout\_constraintTop\_toBottomOf="@+id/et1" />

<Button

android:id="@+id/btnadd"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="4dp"

android:layout\_marginLeft="4dp"

android:layout\_marginEnd="1dp"

android:layout\_marginRight="1dp"

android:text="+"

app:layout\_constraintBaseline\_toBaselineOf="@+id/btnsub"

app:layout\_constraintEnd\_toStartOf="@+id/btnsub"

app:layout\_constraintStart\_toStartOf="parent" />

<TextView

android:id="@+id/tvans"

android:layout\_width="184dp"

android:layout\_height="40dp"

android:layout\_marginTop="34dp"

android:background="#F1EAEA"

android:hint="Answer Displayed here"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/btnsub" />

<Button

android:id="@+id/btnsub"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="24dp"

android:layout\_marginEnd="2dp"

android:layout\_marginRight="2dp"

android:text="-"

app:layout\_constraintEnd\_toStartOf="@+id/btnmul"

app:layout\_constraintStart\_toEndOf="@+id/btnadd"

app:layout\_constraintTop\_toBottomOf="@+id/et2" />

<Button

android:id="@+id/btnmul"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="\*"

app:layout\_constraintEnd\_toStartOf="@+id/btndiv"

app:layout\_constraintStart\_toEndOf="@+id/btnsub"

app:layout\_constraintTop\_toTopOf="@+id/btnsub" />

<Button

android:id="@+id/btndiv"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginEnd="7dp"

android:layout\_marginRight="7dp"

android:text="/"

app:layout\_constraintBaseline\_toBaselineOf="@+id/btnmul"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toEndOf="@+id/btnmul" />

</androidx.constraintlayout.widget.ConstraintLayout>

MAIN ACTIVITY:

package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.Gravity;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

EditText e1,e2;

TextView t1;

Button badd,bsub,bmul,bdiv;

int a,b,c;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

e1 = findViewById(R.id.et1);

e2 = findViewById(R.id.et2);

t1 = findViewById(R.id.tvans);

badd = findViewById(R.id.btnadd);

bsub = findViewById(R.id.btnsub);

bmul = findViewById(R.id.btnmul);

bdiv = findViewById(R.id.btndiv);

badd.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

a = Integer.parseInt(e1.getText().toString());

b = Integer.parseInt(e2.getText().toString());

c = a+b;

t1.setText(""+c);

Toast t = Toast.makeText(MainActivity.this,"Addition

is "+c, Toast.LENGTH\_SHORT);

t.setGravity(Gravity.CENTER, 0,0);

t.show();

}

});

bsub.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

a = Integer.parseInt(e1.getText().toString());

b = Integer.parseInt(e2.getText().toString());

c = a-b;

t1.setText(""+c);

Toast t =

Toast.makeText(MainActivity.this,"Subtraction is "+c,

Toast.LENGTH\_SHORT);

t.setGravity(Gravity.CENTER, 0,0);

t.show();

}

});

bmul.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

a = Integer.parseInt(e1.getText().toString());

b = Integer.parseInt(e2.getText().toString());

c = a\*b;

t1.setText(""+c);

Toast t =

Toast.makeText(MainActivity.this,"Multiplication is "+c,

Toast.LENGTH\_SHORT);

t.setGravity(Gravity.CENTER, 0,0);

t.show();

}

});

bdiv.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

a = Integer.parseInt(e1.getText().toString());

b = Integer.parseInt(e2.getText().toString());

c = a/b;

t1.setText(""+c);

Toast t = Toast.makeText(MainActivity.this,"Division

is "+c, Toast.LENGTH\_SHORT);

t.setGravity(Gravity.CENTER, 0,0);

t.show();

}

});

}

}

**8] Write a program to send user from one application to another. (For example redirection to map).**

**XML CODE:**

<?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/etphone"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="61dp"

android:ems="10"

android:hint="Enter Phone Number"

android:inputType="phone"

app:layout\_constraintBottom\_toTopOf="@+id/btncall"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/btncall"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginEnd="12dp"

android:layout\_marginRight="12dp"

android:layout\_marginBottom="44dp"

android:onClick="callNumber"

android:text="Call"

app:layout\_constraintBottom\_toTopOf="@+id/btngoogle"

app:layout\_constraintEnd\_toEndOf="@+id/btngoogle" />

<Button

android:id="@+id/btngoogle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="312dp"

android:onClick="openGoogle"

android:text="Google it"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/btnmap"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="46dp"

android:layout\_marginEnd="10dp"

android:layout\_marginRight="10dp"

android:onClick="openMaps"

android:text="Maps"

app:layout\_constraintEnd\_toEndOf="@+id/btngoogle"

app:layout\_constraintTop\_toBottomOf="@+id/btngoogle" />

<Button

android:id="@+id/btnsms"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="75dp"

android:onClick="sendSMS"

android:text="Send SMS"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent" />

<EditText

android:id="@+id/etsms"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="42dp"

android:ems="10"

android:gravity="start|top"

android:hint="Enter Text Message"

android:inputType="textMultiLine"

app:layout\_constraintBottom\_toTopOf="@+id/btnsms"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity**:

package com.example.implicitintent;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText etphoneno,etmessage;

Button bcall,bgoogle,bmap;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

etphoneno = findViewById(R.id.etphone);

etmessage = findViewById(R.id.etsms);

// bcall = findViewById(R.id.btncall);

// bgoogle = findViewById(R.id.btngoogle);

// bmap = findViewById(R.id.btnmap);

}

public void callNumber(View view) {

String phoneno = etphoneno.getText().toString();

Intent i = new Intent(Intent.ACTION\_DIAL);

i.setData(Uri.parse("tel:+91"+phoneno));

startActivity(i);

}

public void openGoogle(View view) {

Intent i = new Intent(Intent.ACTION\_VIEW);

i.setData(Uri.parse("https://www.google.com"));

startActivity(i);

}

public void openMaps(View view) {

Intent i = new Intent(Intent.ACTION\_VIEW);

i.setData(Uri.parse("geo:19.8798042,75.3478223"));

startActivity(i);

}

public void sendSMS(View view) {

String phoneno = etphoneno.getText().toString();

String sms = etmessage.getText().toString();

Intent i = new Intent(Intent.ACTION\_VIEW);

i.setData(Uri.parse("smsto:+91"+phoneno));

i.putExtra("sms\_body",""+sms);

i.setType("vnd.android-dir/mms-sms");

startActivity(i);

}

}

**9] Write a program to send SMS.**

**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/phone"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="3dp"

android:layout\_marginBottom="60dp"

android:ems="10"

android:hint="Enter Phone number"

android:inputType="textPersonName"

app:layout\_constraintBottom\_toTopOf="@+id/msg"

app:layout\_constraintStart\_toStartOf="@+id/msg" />

<EditText

android:id="@+id/msg"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="223dp"

android:ems="10"

android:hint="Enter Msg"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/btn1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="73dp"

android:onClick="sendclick"

android:text="Send"

app:layout\_constraintEnd\_toEndOf="@+id/msg"

app:layout\_constraintStart\_toStartOf="@+id/msg"

app:layout\_constraintTop\_toBottomOf="@+id/msg" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity.java:**

package com.example.assignment8;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText etphoneno, etmessage;

Button bsms;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

etphoneno = findViewById(R.id.phone);

etmessage = findViewById(R.id.msg);

}

public void sendclick(View view) {

String phoneno = etphoneno.getText().toString();

String sms = etmessage.getText().toString();

Intent i = new Intent(Intent.ACTION\_VIEW);

i.setData(Uri.parse("smsto:+91"+phoneno));

i.putExtra("sms\_body",""+sms);

i.setType("vnd.android-dir/mms-sms");

startActivity(i);

}

}

**10] Write a program to call a number.**

**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/number"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="166dp"

android:ems="10"

android:hint="Enter Phone no"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/call"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="100dp"

android:onClick="clickcall"

android:text="call now"

app:layout\_constraintEnd\_toEndOf="@+id/number"

app:layout\_constraintStart\_toStartOf="@+id/number"

app:layout\_constraintTop\_toBottomOf="@+id/number" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity.java:**

package com.example.assignment10;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

EditText ephone;

Button bcall;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ephone = findViewById(R.id.number);

bcall = findViewById(R.id.call);

}

public void clickcall(View view) {

String no = ephone.getText().toString();

Intent i = new Intent(Intent.ACTION\_DIAL);

i.setData(Uri.parse("tel:"+no));

startActivity(i);

}

}

**11] Write a program to convert text to speech.**

**XML CODE-**

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

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:layout\_margin="30dp"

tools:context=".MainActivity">

<!--To add text in the app-->

<EditText

android:id="@+id/Text"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="20dp"

android:gravity="center"

android:hint="Enter Any Sentence"

android:minHeight="48dp"

android:textSize="16dp" />

<!--when you press this button it will

convert text into speech-->

<Button

android:layout\_width="wrap\_content"

android:id="@+id/btnText"

android:layout\_height="wrap\_content"

android:text="Click Here"

android:layout\_gravity="center"/>

<TextView

android:id="@+id/textView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginTop="70dp"

android:gravity="center\_horizontal"

android:text="Hello"

android:textColor="@android:color/holo\_green\_dark"

android:textSize="36sp" />

</LinearLayout>

**Main Activity.java –**

package com.example.texttospeech;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.speech.tts.TextToSpeech;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import java.util.Locale;

public class MainActivity extends AppCompatActivity {

EditText Text;

Button btnText;

TextToSpeech textToSpeech;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Text = findViewById(R.id.Text);

btnText = findViewById(R.id.btnText);

// create an object textToSpeech and adding features into it

textToSpeech = new TextToSpeech(getApplicationContext(), new

TextToSpeech.OnInitListener() {

@Override

public void onInit(int i) {

// if No error is found then only it will run

if(i!=TextToSpeech.ERROR){

// To Choose language of speech

textToSpeech.setLanguage(Locale.UK);

}

}

});

// Adding OnClickListener

btnText.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textToSpeech.speak(Text.getText().toString(),TextToSpeech.QUEUE\_FLUS

H,null);

}

});

}

}

**12] Write a program to capture image using built in camera**

**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">

<ImageView

android:id="@+id/imageV1"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_marginStart="72dp"

android:layout\_marginTop="92dp"

android:layout\_marginEnd="72dp"

android:layout\_marginBottom="101dp"

app:layout\_constraintBottom\_toTopOf="@+id/btn"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

tools:srcCompat="@tools:sample/avatars" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="79dp"

android:layout\_marginBottom="235dp"

android:onClick="imgclick"

android:text="Click"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintStart\_toStartOf="@+id/imageV1"

app:layout\_constraintTop\_toBottomOf="@+id/imageV1" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity.java:**

package com.example.assignment7;

import androidx.annotation.Nullable;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.graphics.Bitmap;

import android.media.Image;

import android.os.Bundle;

import android.provider.MediaStore;

import android.view.View;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

ImageView img;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

img = findViewById(R.id.imageV1);

}

public void imgclick(View view) {

Intent i = new Intent(MediaStore.ACTION\_IMAGE\_CAPTURE);

startActivityForResult(i, 0);

}

@Override

protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {

super.onActivityResult(requestCode, resultCode, data);

Bitmap b = (Bitmap) data.getExtras().get("data");

}

}

**13] Write a program to play audio files.**

**XML CODE:**

<?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/btnplay"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="142dp"

android:layout\_marginBottom="217dp"

android:onClick="play"

android:text="Play"

app:layout\_constraintBottom\_toTopOf="@+id/pb1"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/btnstop"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="33dp"

android:onClick="stop"

android:text="Stop"

app:layout\_constraintStart\_toStartOf="@+id/btnplay"

app:layout\_constraintTop\_toBottomOf="@+id/btnplay" />

<Button

android:id="@+id/btnpause"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="29dp"

android:onClick="pause"

android:text="Pause"

app:layout\_constraintStart\_toStartOf="@+id/btnstop"

app:layout\_constraintTop\_toBottomOf="@+id/btnstop" />

<ProgressBar

android:id="@+id/pb1"

style="?android:attr/progressBarStyleHorizontal"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_marginStart="12dp"

android:layout\_marginLeft="12dp"

android:layout\_marginEnd="12dp"

android:layout\_marginRight="12dp"

android:layout\_marginBottom="287dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/btnplay" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Main Activity :**

package com.example.audio;

import androidx.appcompat.app.AppCompatActivity;

import android.media.MediaPlayer;

import android.os.Bundle;

import android.view.View;

public class MainActivity extends AppCompatActivity {

MediaPlayer mp;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

mp = MediaPlayer.create(MainActivity.this,R.raw.twochainz);

}

public void play(View view) {

mp.start();

}

public void stop(View view) {

mp.stop();

mp = MediaPlayer.create(MainActivity.this,R.raw.twochainz);

}

public void pause(View view) {

mp.pause();

}

}

**14] Write a program to play video files**.

**Xml file**

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<VideoView

android:id="@+id/videoView2"

android:layout\_width="0dp"

android:layout\_height="0dp"

android:layout\_marginBottom="88dp"

app:layout\_constraintBottom\_toTopOf="@+id/btn"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="199dp"

android:text="Play Video"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/videoView2" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Javacode**

package com.example.video;

import androidx.appcompat.app.AppCompatActivity;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.VideoView;

public class MainActivity extends AppCompatActivity {

VideoView vv;

Button video;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

vv = findViewById(R.id.videoView2);

video = findViewById(R.id.btn);

video.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String path = "android.resource://"+getPackageName()+"/"+R.raw.video;

Uri url = Uri.parse(path);

vv.setVideoURI(url);

vv.start();

}

});

}

}