

## Experiment 12

Develop an android application that runs

(i) audio file (ii) video file

Layout.xml

```
1. <?xml version="1.0" encoding="utf-8"?>
2. <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3.     xmlns:app="http://schemas.android.com/apk/res-auto"
4.     xmlns:tools="http://schemas.android.com/tools"
5.     android:layout_width="match_parent"
6.     android:layout_height="match_parent"
7.     tools:context=".MainActivity">
8.
9.     <FrameLayout
10.         android:id="@+id/frameLayout"
11.         android:layout_width="match_parent"
12.         android:layout_height="250dp"
13.         android:layout_marginStart="16dp"
14.         android:layout_marginEnd="16dp"
15.         app:layout_constraintEnd_toEndOf="parent"
16.         app:layout_constraintHorizontal_bias="0.5"
17.         app:layout_constraintStart_toStartOf="parent"
18.         app:layout_constraintTop_toBottomOf="@+id/textView2">
19.
20.         <VideoView
21.             android:id="@+id/vw_box"
22.             android:layout_width="match_parent"
23.             android:layout_height="wrap_content" />
24.
25.     </FrameLayout>
26.
27.     <TextView
28.         android:id="@+id/textView2"
29.         android:layout_width="0dp"
30.         android:layout_height="wrap_content"
31.         android:layout_marginTop="8dp"
32.         android:fontFamily="casual"
33.         android:text="Lucas the spider"
34.         android:textAlignment="center"
35.         android:textColor="#3949AB"
36.         android:textSize="24sp"
37.         android:textStyle="bold"
38.         app:layout_constraintEnd_toEndOf="parent"
39.         app:layout_constraintHorizontal_bias="0.5"
40.         app:layout_constraintStart_toStartOf="parent"
41.         app:layout_constraintTop_toTopOf="parent" />
42.
43.     <TextView
44.         android:id="@+id/textView3"
```

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```
45.         android:layout_width="0dp"
46.         android:layout_height="wrap_content"
47.         android:fontFamily="casual"
48.         android:text="The Cupcake Song"
49.         android:textAlignment="center"
50.         android:textColor="#3949AB"
51.         android:textSize="24sp"
52.         android:textStyle="bold"
53.         app:layout_constraintBottom_toTopOf="@+id/imageView"
54.         app:layout_constraintEnd_toEndOf="parent"
55.         app:layout_constraintHorizontal_bias="0.0"
56.         app:layout_constraintStart_toStartOf="parent"
57.         app:layout_constraintTop_toBottomOf="@+id/frameLayout"
58.         app:layout_constraintVertical_bias="1.0" />
59.
60.     <ImageView
61.         android:id="@+id/imageView"
62.         android:layout_width="0dp"
63.         android:layout_height="183dp"
64.         app:layout_constraintBottom_toBottomOf="parent"
65.         app:layout_constraintEnd_toEndOf="parent"
66.         app:layout_constraintHorizontal_bias="0.0"
67.         app:layout_constraintStart_toStartOf="parent"
68.         app:layout_constraintTop_toTopOf="parent"
69.         app:layout_constraintVertical_bias="0.793"
70.         app:srcCompat="@drawable/cupcakealbumart" />
71.
72.     <Button
73.         android:id="@+id/btnPlay"
74.         android:layout_width="wrap_content"
75.         android:layout_height="wrap_content"
76.         android:onClick="playSong"
77.         android:text="Play"
78.         app:layout_constraintBottom_toBottomOf="parent"
79.         app:layout_constraintEnd_toStartOf="@+id/btnStop"
80.         app:layout_constraintHorizontal_bias="0.5"
81.         app:layout_constraintStart_toEndOf="@+id/btnPause"
82.         app:layout_constraintTop_toBottomOf="@+id/imageView"
83.         app:layout_constraintVertical_bias="0.147" />
84.
85.     <Button
86.         android:id="@+id/btnPause"
87.         android:layout_width="wrap_content"
88.         android:layout_height="wrap_content"
89.         android:onClick="pauseSong"
90.         android:text="Pause"
91.         app:layout_constraintBaseline_toBaselineOf="@+id/btnPlay"
92.         app:layout_constraintEnd_toStartOf="@+id/btnPlay"
```

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```
93.         app:layout_constraintHorizontal_bias="0.5"
94.         app:layout_constraintStart_toStartOf="parent" />
95.
96.     <Button
97.         android:id="@+id/btnStop"
98.         android:layout_width="wrap_content"
99.         android:layout_height="wrap_content"
100.        android:onClick="stopSong"
101.        android:text="Stop"
102.        app:layout_constraintBaseline_toBaselineOf="@+id/btnPlay"
103.
104.        app:layout_constraintEnd_toEndOf="parent"
105.        app:layout_constraintHorizontal_bias="0.5"
106.        app:layout_constraintStart_toEndOf="@+id/btnPlay" />
107.
108. </androidx.constraintlayout.widget.ConstraintLayout>
```

Layout.java

```
1. package com.example.audiovideomediaplayerapp;
2.
3. import androidx.appcompat.app.AppCompatActivity;
4.
5. import android.media.MediaPlayer;
6. import android.os.Bundle;
7. import android.util.Log;
8. import android.view.View;
9. import android.widget.MediaController;
10.    import android.widget.Toast;
11.    import android.widget.VideoView;
12.
13.    public class MainActivity extends AppCompatActivity {
14.
15.        MediaPlayer player; //for playing mp3 song
16.        VideoView vw; //video container
17.        MediaController mc; //for video controls
18.        @Override
19.        protected void onCreate(Bundle savedInstanceState) {
20.            super.onCreate(savedInstanceState);
21.            setContentView(R.layout.activity_main);
22.
23.            vw = findViewById(R.id.vw_box);
24.            playVideo();
25.
26.        }
```

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```
27.
28.         public void playVideo(){
29.
30.             try {
31.                 String vp = "android.resource://" + getPackageName()
+ "/" + R.raw.lucas;
32.                 vw.setVideoPath(vp);
33.                 mc = new MediaController(this);
34.                 vw.setMediaController(mc);
35.                 mc.setAnchorView(vw);
36.                 vw.start();
37.                 vw.setOnCompletionListener(new MediaPlayer.OnCompleti
onListener() {
38.                     @Override
39.                     public void onCompletion(MediaPlayer mp) {
40.                         Toast.makeText(MainActivity.this, "Completed!
", Toast.LENGTH_LONG).show();
41.                     }
42.                 });
43.
44.             } catch (Exception ex) {
45.                 Log.d("Playtime Error:", ex.getMessage());
46.             }
47.         }
48.
49.         public void playSong(View view){
50.             if(player == null) {
51.                 player = MediaPlayer.create(this, R.raw.cupcakeso
ng);
52.                 player.setOnCompletionListener(new MediaPlayer.On
CompletionListener() {
53.                     @Override
54.                     public void onCompletion(MediaPlayer mediaPla
yer) {
55.                         stopPlayer();
56.                     }
57.                 });
58.                 player.start();
59.             }
60.         }
61.         public void pauseSong(View v){
62.             if(player != null){
63.                 player.pause();
64.             }
65.         }
66.         public void stopSong(View v){
67.             stopPlayer();
68.         }
69.
```

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```
70.         public void stopPlayer(){
71.             if(player != null){
72.                 player.stop();
73.                 player.release();
74.                 player = null;
75.                 Toast.makeText(getApplicationContext(),"Player Stopped!",Toast.LENGTH_LONG).show();
76.             }
77.         }
78.
79.
80.         //as soon as we leave the app, the media player will release
all the resources
81.         @Override
82.         protected void onStop() {
83.             super.onStop();
84.             stopPlayer();
85.         }
86.     }
```

Snapshot:

