**[ 2CEIT5PE5: MOBILE APPLICATION DEVELOPMENT]**

Practical: 6



**AIM - What is Service? Write down types of Service. Create**

**an MP3 player application by using service by following**

**below instructions.**

1. Create MainActivity and design according to shown in

below image.

1. Create Service Class and implement MediaPlayer Object.

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**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">  
  
  
 <com.google.android.material.card.MaterialCardView  
 android:id="@+id/materialCardView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginHorizontal="20dp"  
  
 android:layout\_marginTop="20dp"  
 android:elevation="20dp"  
 app:cardBackgroundColor="@color/cardview\_light\_background"  
 app:cardCornerRadius="20dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView">  
  
 <ImageView  
 android:id="@+id/imageView2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:srcCompat="@drawable/media" />  
 </com.google.android.material.card.MaterialCardView>  
  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="150dp"  
 android:layout\_marginHorizontal="20dp"  
 android:layout\_marginTop="30dp"  
 android:layout\_marginBottom="30dp"  
 android:elevation="20dp"  
 app:cardCornerRadius="20dp"  
 app:cardElevation="20dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/materialCardView">  
  
 <androidx.constraintlayout.widget.ConstraintLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Dosti Music Video"  
 android:textSize="15dp"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.088" />  
  
 <com.google.android.material.floatingactionbutton.FloatingActionButton  
 android:id="@+id/playbtn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:backgroundTint="#96553f"  
 android:src="@drawable/baseline\_play\_arrow\_24"  
 app:elevation="30dp"  
 app:fabSize="normal"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintBottom\_toBottomOf="parent" >  
 </com.google.android.material.floatingactionbutton.FloatingActionButton>  
  
 <com.google.android.material.floatingactionbutton.FloatingActionButton  
 android:id="@+id/next\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:layout\_marginStart="5dp"  
 android:src="@drawable/baseline\_skip\_next\_24"  
 app:elevation="30dp"  
 app:fabSize="mini"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toEndOf="@id/playbtn"  
 app:layout\_constraintTop\_toTopOf="parent" >  
 </com.google.android.material.floatingactionbutton.FloatingActionButton>  
  
 <com.google.android.material.floatingactionbutton.FloatingActionButton  
 android:id="@+id/stop\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="right"  
 android:layout\_marginStart="5dp"  
 android:src="@drawable/baseline\_stop\_24"  
 app:elevation="30dp"  
 app:fabSize="mini"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toEndOf="@id/next\_btn"  
 app:layout\_constraintTop\_toTopOf="parent" >  
 </com.google.android.material.floatingactionbutton.FloatingActionButton>  
  
 <com.google.android.material.floatingactionbutton.FloatingActionButton  
 android:id="@+id/previous\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:layout\_marginEnd="5dp"  
 android:src="@drawable/baseline\_skip\_previous\_24"  
 app:elevation="30dp"  
 app:fabSize="mini"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@id/playbtn"  
 app:layout\_constraintTop\_toTopOf="parent" >  
 </com.google.android.material.floatingactionbutton.FloatingActionButton>  
  
 <com.google.android.material.floatingactionbutton.FloatingActionButton  
 android:id="@+id/shuffle\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:layout\_marginEnd="5dp"  
 android:src="@drawable/baseline\_shuffle\_24"  
 app:elevation="30dp"  
 app:fabSize="mini"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@id/previous\_btn"  
 app:layout\_constraintTop\_toTopOf="parent" >  
 </com.google.android.material.floatingactionbutton.FloatingActionButton>  
  
  
 </androidx.constraintlayout.widget.ConstraintLayout>  
  
 </com.google.android.material.card.MaterialCardView>  
  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:text="MP3 Player "  
 android:textSize="30sp"  
 android:textStyle="bold"  
  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt :**

package com.example.mad\_practical\_6\_21012021003

import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Button

import com.google.android.material.floatingactionbutton.FloatingActionButton

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

val buttonPlay: FloatingActionButton = findViewById(R.id.playbtn)

buttonPlay.setOnClickListener {

playPause()

}

val buttonStop: FloatingActionButton = findViewById(R.id.stop\_btn)

buttonStop.setOnClickListener {

stop()

}

}

fun playPause(){

Intent(applicationContext, MyService::class.java).putExtra(MyService.PLAYERKEY, MyService.PLAYERVALUE).apply { startService(this) }

}

fun stop(){

Intent(applicationContext, MyService::class.java).putExtra(MyService.PLAYERKEY, MyService.PLAYERVALUE).apply { stopService(this) }

}

}

**MyService.kt**

package com.example.mad\_practical\_6\_21012021003

import android.app.Service

import android.content.Intent

import android.media.MediaPlayer

import android.os.IBinder

class MyService : Service() {

lateinit var player:MediaPlayer

companion object{

val PLAYERKEY = "SERVICE"

val PLAYERVALUE = "play/pause"

}

override fun onBind(intent: Intent): IBinder {

TODO("Return the communication channel to the service.")

}

override fun onStartCommand(intent: Intent?, flags: Int, startId: Int): Int {

if(!this::player.isInitialized){

player = MediaPlayer.create(this, R.raw.song)

}

if(intent != null){

val dataValue = intent.getStringExtra(PLAYERKEY)

if(dataValue == PLAYERVALUE){

if(!player.isPlaying){

player.start()

}

else{

player.pause()

}

}

}

else{

player.stop()

}

return START\_STICKY

