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

Practical: 5



**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. Use Material 3 design

2.Create Service Class and implement **MediaPlayer** Object

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Github Link :



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**Activity\_main.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=".MainActivity">

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical">

<com.google.android.material.appbar.AppBarLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<com.google.android.material.appbar.MaterialToolbar

android:id="@+id/topAppbar"

android:layout\_width="match\_parent"

android:layout\_height="?attr/actionBarSize"

app:navigationIcon="@drawable/ic\_baseline\_menu\_24"

app:title="Music Player"

app:titleCentered="true"/>

</com.google.android.material.appbar.AppBarLayout>

<com.google.android.material.card.MaterialCardView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

app:cardCornerRadius="40dp"

android:padding="-30dp">

<ImageView

android:layout\_width="match\_parent"

android:layout\_height="450dp"

android:src="@drawable/img\_1"

/>

</com.google.android.material.card.MaterialCardView>

<com.google.android.material.card.MaterialCardView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

app:cardCornerRadius="20dp"

android:elevation="20dp">

<LinearLayout

android:id="@+id/bottomCard"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:padding="10dp"

android:text="Dosti Music Video"

android:textSize="20sp"

android:textStyle="bold" />

<com.google.android.material.slider.Slider

android:id="@+id/musicSlider"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:value="50"

android:valueFrom="0"

android:valueTo="100" />

<LinearLayout

android:id="@+id/buttons"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:gravity="center"

android:orientation="horizontal">

<com.google.android.material.floatingactionbutton.FloatingActionButton

android:id="@+id/shuffleButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:elevation="50dp"

android:src="@drawable/ic\_baseline\_shuffle\_24"

android:tint="@color/white"

app:borderWidth="0dp"

app:fabSize="mini" />

<com.google.android.material.floatingactionbutton.FloatingActionButton

android:id="@+id/backwardbutton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:elevation="50dp"

android:src="@drawable/ic\_baseline\_fast\_rewind\_24"

android:tint="@color/white"

app:borderWidth="0dp"

app:fabSize="mini" />

<com.google.android.material.floatingactionbutton.FloatingActionButton

android:id="@+id/playButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:elevation="50dp"

android:src="@drawable/ic\_baseline\_play\_arrow\_24"

android:tint="@color/white"

app:borderWidth="0dp"

app:fabSize="normal" />

<com.google.android.material.floatingactionbutton.FloatingActionButton

android:id="@+id/forwardButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:elevation="50dp"

android:src="@drawable/ic\_baseline\_fast\_forward\_24"

android:tint="@color/white"

app:borderWidth="0dp"

app:fabSize="mini" />

<com.google.android.material.floatingactionbutton.FloatingActionButton

android:id="@+id/stopButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:elevation="50dp"

android:src="@drawable/ic\_baseline\_stop\_24"

android:tint="@color/white"

app:borderWidth="0dp"

app:fabSize="mini" />

</LinearLayout>

</LinearLayout>

</com.google.android.material.card.MaterialCardView>

</LinearLayout>

</androidx.coordinatorlayout.widget.CoordinatorLayout>

**MainActivity.kt:**

package com.example.madpractical\_5\_20012011124

import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import com.example.madpractical\_5\_20012011124.MyService.MyService

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

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

val play = findViewById<FloatingActionButton>(R.id.playButton)

val stop = findViewById<FloatingActionButton>(R.id.stopButton)

var count = 0

play.setOnClickListener {

count++

play()

if(count%2!=0){

play.setImageDrawable(resources.getDrawable(R.drawable.ic\_baseline\_pause\_24))

}

else{

play.setImageDrawable(resources.getDrawable(R.drawable.ic\_baseline\_play\_arrow\_24))

}

}

stop.setOnClickListener {

stop()

}

}

fun play() {

Intent(applicationContext, MyService::class.java).putExtra(

MyService.DATA\_KEY,

MyService.DATA\_VALUE

).apply {

startService(this)

}

}

fun stop() {

Intent(applicationContext, MyService::class.java).apply {

stopService(this)

}

}

}

**MyService.kt :**

package com.example.madpractical\_5\_20012011124.MyService

import android.app.Service

import android.content.Intent

import android.media.MediaPlayer

import android.os.IBinder

import com.example.madpractical\_5\_20012011124.R

class MyService : Service() {

companion object {

public val DATA\_KEY = "service"

val DATA\_VALUE = "play\_pause"

}

private lateinit var player: MediaPlayer

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 str = intent.getStringExtra(DATA\_KEY)

if (str == DATA\_VALUE) {

if (player.isPlaying) {

player.pause()

} else {

player.start()

}

}

} else {

player.start()

}

return START\_STICKY

}

override fun onDestroy() {

player.stop()

super.onDestroy()

}

}

**Output :**



