**Practical 11**

**Programming Media API and Telephone API**

**MainActivity.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"

android:background="@color/black"

android:layout\_gravity="center">

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/audio"

android:text="Audio"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

android:layout\_marginTop="200dp"

android:layout\_marginLeft="150dp"/>

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/video"

android:text="Video"

app:layout\_constraintStart\_toStartOf="parent"

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

android:layout\_marginTop="200dp"

android:layout\_marginLeft="150dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt:**

package com.example.abc

import android.content.Intent

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Button

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

var audio = findViewById<Button>(R.id.audio)

var video = findViewById<Button>(R.id.video)

audio.setOnClickListener {

var intent = Intent(this@MainActivity,Audio::class.java)

startActivity(intent)

}

video.setOnClickListener {

var intent = Intent(this@MainActivity,Video::class.java)

startActivity(intent)

}

}

}

**main\_video.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"

android:background="@color/black"

tools:context=".Video">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/textView"

android:layout\_marginTop="20dp"

android:gravity="center"

android:text="Duaa"

android:textColor="@color/white"

android:layout\_marginBottom="383dp"

android:textSize="50dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

<VideoView

android:layout\_width="match\_parent"

android:layout\_height="400dp"

android:id="@+id/videoView1"

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

android:layout\_marginTop="20dp"

android:layout\_marginLeft="20dp"

android:layout\_marginRight="20dp"/>

<Button

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/playButton"

app:layout\_constraintTop\_toBottomOf="@+id/videoView1"

android:text="Play"

android:layout\_marginTop="20dp"

android:layout\_marginLeft="20dp"

android:layout\_marginRight="20dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

**video.kt:**

package com.example.abc

import android.net.Uri

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Button

import android.widget.MediaController

import android.widget.VideoView

class Video : AppCompatActivity() {

private lateinit var videoView: VideoView

private lateinit var mediaController: MediaController

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_video)

var playButton = findViewById<Button>(R.id.playButton)

videoView = findViewById(R.id.videoView1)

mediaController= MediaController(this)

videoView.setMediaController(mediaController)

videoView.setVideoURI(Uri.parse("android.resource://com.example.abc/${R.raw.sample}"))

playButton.setOnClickListener {

if (videoView.isPlaying){

videoView.pause()

playButton.text="Play"

}else{

videoView.start()

playButton.text="Pause"

}

}

}

override fun onDestroy() {

super.onDestroy()

videoView.stopPlayback()

}

}

**main\_audio.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"

android:background="@color/black"

tools:context=".Audio">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/textView"

android:layout\_marginTop="20dp"

android:gravity="center"

android:text="Humnava mere"

android:textColor="@color/white"

android:layout\_marginBottom="383dp"

android:textSize="50dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

<ImageView

android:layout\_width="match\_parent"

android:layout\_height="300dp"

android:id="@+id/logo"

android:layout\_marginTop="20dp"

android:layout\_marginLeft="20dp"

android:layout\_marginRight="20dp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

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

<SeekBar

android:layout\_width="match\_parent"

android:layout\_height="70dp"

android:id="@+id/seekBar"

android:layout\_marginTop="20dp"

android:layout\_marginLeft="20dp"

android:layout\_marginRight="20dp"

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

<Button

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/playButton"

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

android:text="Play"

android:layout\_marginTop="20dp"

android:layout\_marginLeft="20dp"

android:layout\_marginRight="20dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>

**Audio.kt**

package com.example.abc

import android.media.MediaPlayer

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.Button

import android.widget.SeekBar

import kotlinx.coroutines.\*

class Audio : AppCompatActivity() {

private lateinit var mediaPlayer: MediaPlayer

private lateinit var seekBar: SeekBar

private var seekBarUpdateJob: Job? = null

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_audio)

var playButton = findViewById<Button>(R.id.playButton)

seekBar = findViewById(R.id.seekBar)

mediaPlayer = MediaPlayer.create(this, R.raw.humnava\_mere)

seekBar.max = mediaPlayer.duration

seekBar.setOnSeekBarChangeListener(object : SeekBar.OnSeekBarChangeListener {

override fun onProgressChanged(p0: SeekBar?, p1: Int, p2: Boolean) {

if (p2) {

mediaPlayer.seekTo(p1)

}

}

override fun onStartTrackingTouch(p0: SeekBar?) {

}

override fun onStopTrackingTouch(p0: SeekBar?) {

}

})

playButton.setOnClickListener {

if (mediaPlayer.isPlaying) {

mediaPlayer.pause()

playButton.text = "Play"

seekBarUpdateJob?.cancel()

} else {

mediaPlayer.start()

playButton.text = "pause"

seekBarUpdateJob = GlobalScope.launch(Dispatchers.Main) {

while (mediaPlayer.isPlaying) {

seekBar.progress = mediaPlayer.currentPosition

delay(100)

}

}

}

}

}

override fun onDestroy() {

super.onDestroy()

seekBarUpdateJob?.cancel()

mediaPlayer.release()

}

}

**AndroidManifest.xml:**

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

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

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

package="com.example.abc">

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:usesCleartextTraffic="true"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.Abc"

tools:targetApi="31">

<activity

android:name=".Audio"

android:exported="true">

</activity>

<activity

android:name=".Video"

android:exported="true">

</activity>

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

</application>

</manifest>