Play audio, video

<?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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="50dp"  
 tools:context=".MainActivity">  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="play audio"  
 tools:layout\_editor\_absoluteX="155dp"  
 tools:layout\_editor\_absoluteY="105dp" />  
  
 <Button  
 android:id="@+id/audiostop"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="stop audio"  
 tools:layout\_editor\_absoluteX="155dp"  
 tools:layout\_editor\_absoluteY="181dp" />  
  
 <Button  
 android:id="@+id/playvideo"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="playvideo" />  
  
 <Button  
 android:id="@+id/stopvideo"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="stop video" />  
  
 <VideoView  
 android:id="@+id/videoView"  
 android:layout\_width="288dp"  
 android:layout\_height="262dp"  
 android:layout\_gravity="center"  
 tools:layout\_editor\_absoluteX="76dp"  
 tools:layout\_editor\_absoluteY="267dp" />  
</LinearLayout>

package com.example.audio\_video  
  
import android.media.MediaPlayer  
import android.net.Uri  
import android.os.Bundle  
import android.widget.Button  
import android.widget.MediaController  
import android.widget.Toast  
import android.widget.VideoView  
import androidx.activity.enableEdgeToEdge  
import androidx.annotation.Nullable  
import androidx.appcompat.app.AppCompatActivity  
import androidx.core.view.ViewCompat  
import androidx.core.view.WindowInsetsCompat  
  
class MainActivity : AppCompatActivity() {  
 private var mediaPlayer: MediaPlayer?=null  
 override fun onCreate(savedInstanceState: Bundle?) {  
  
 super.onCreate(savedInstanceState)  
 *enableEdgeToEdge*()  
 setContentView(R.layout.*activity\_main*)  
 val aup =findViewById<Button>(R.id.*button*)  
 val aus = findViewById<Button>(R.id.*audiostop*)  
 val vip = findViewById<Button>(R.id.*playvideo*)  
 val vis = findViewById<Button>(R.id.*stopvideo*)  
 val vview = findViewById<VideoView>(R.id.*videoView*)  
 aup.setOnClickListener **{** Toast.makeText(this, "clicked", Toast.*LENGTH\_SHORT*).show()  
 mediaPlayer=MediaPlayer.create(this,R.raw.*audio*)  
 mediaPlayer?.start()  
  
 **}** aus.setOnClickListener **{** mediaPlayer?.stop()  
 mediaPlayer?.release()  
 mediaPlayer=null  
 **}** vip.setOnClickListener**{** val videoUri = Uri.parse("android.resource://" + *packageName* + "/" + R.raw.*video*)  
 vview.setVideoURI(videoUri)  
 vview.setMediaController(MediaController(this))  
 vview.requestFocus()  
 vview.start()  
 **}** vis.setOnClickListener **{** if (vview.*isPlaying*) { vview.stopPlayback() } **}** }  
}

menu arthemetic  
main activity

package com.example.menuarthemetic  
import android.os.Bundle  
import android.view.MenuInflater  
import android.view.MenuItem  
import android.widget.EditText  
import android.widget.ImageButton  
import android.widget.PopupMenu  
import android.widget.TextView  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 val number1EditText: EditText = findViewById(R.id.*number1*)  
 val number2EditText: EditText = findViewById(R.id.*number2*)  
 val resultTextView: TextView = findViewById(R.id.*resultText*)  
  
 findViewById<ImageButton>(R.id.*iButton*).setOnClickListener **{** view **->** val popup = PopupMenu(this, view)  
 val inflater = popup.*menuInflater* inflater.inflate(R.menu.*menu*, popup.*menu*)  
 popup.setOnMenuItemClickListener **{** menuItem: MenuItem **->** val num1 = number1EditText.*text*.toString().*toDoubleOrNull*()  
 val num2 = number2EditText.*text*.toString().*toDoubleOrNull*()  
 if (num1 == null || num2 == null) {  
 Toast.makeText(this, "Please enter valid numbers",  
 Toast.*LENGTH\_SHORT*).show()  
 return@setOnMenuItemClickListener false  
 }  
 when (menuItem.*itemId*) {  
 R.id.*add* -> {  
 val result = num1 + num2  
 resultTextView.*text* = "Result: $result"  
 true  
 }  
 R.id.*subtract* -> {  
 val result = num1 - num2  
 resultTextView.*text* = "Result: $result"  
 true  
 }  
 R.id.*multiply* -> {  
 val result = num1 \* num2  
 resultTextView.*text* = "Result: $result"  
 true  
 }  
 R.id.*divide* -> {  
 if (num2 == 0.0) {  
 Toast.makeText(this, "Cannot divide by zero",  
 Toast.*LENGTH\_SHORT*).show()  
 } else {  
 val result = num1 / num2  
 resultTextView.*text* = "Result: $result"  
 }  
 true  
 }  
 else -> false  
 }  
 **}** popup.show()  
 **}** }  
}

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:id="@+id/linearLayout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center">  
  
 <EditText  
 android:id="@+id/number1"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="275dp"  
 android:hint="Enter number"  
 android:inputType="numberDecimal"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="@+id/number2"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <EditText  
 android:id="@+id/number2"  
 android:layout\_width="379dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="16dp"  
 android:hint="Enter number"  
 android:inputType="numberDecimal"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/number1" />  
  
 <ImageButton  
 android:id="@+id/iButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="16dp"  
 android:contentDescription="Arithmetic operations"  
 android:src="@android:drawable/ic\_menu\_add"  
 app:layout\_constraintEnd\_toEndOf="@+id/number2"  
 app:layout\_constraintStart\_toStartOf="@+id/number2"  
 app:layout\_constraintTop\_toBottomOf="@+id/number2" />  
  
 <TextView  
 android:id="@+id/resultText"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="212dp"  
 android:text="Result: "  
 android:textSize="18sp"  
 app:layout\_constraintEnd\_toEndOf="@+id/iButton"  
 app:layout\_constraintTop\_toBottomOf="@+id/iButton" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="100dp"  
 android:layout\_marginTop="78dp"  
 android:layout\_marginEnd="74dp"  
 android:layout\_marginBottom="621dp"  
 android:text="Arithmetic Operations"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

menu

<?xml version="1.0" encoding="utf-8"?>  
<menu xmlns:android="http://schemas.android.com/apk/res/android">  
 <item android:id="@+id/add" android:title="Add" />  
 <item android:id="@+id/subtract" android:title="Subtract" />  
 <item android:id="@+id/multiply" android:title="Multiply" />  
 <item android:id="@+id/divide" android:title="Divide" />  
</menu>

store student details

main\_xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="16dp">  
  
 <EditText  
 android:id="@+id/roll\_no"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Roll No" />  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Name" />  
  
 <EditText  
 android:id="@+id/mark1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Mark 1" />  
  
 <EditText  
 android:id="@+id/mark2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Mark 2" />  
  
 <EditText  
 android:id="@+id/mark3"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Mark 3" />  
  
 <Button  
 android:id="@+id/save\_button"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Save" />  
 <Button  
 android:id="@+id/display\_results\_button"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Display Results" />  
  
</LinearLayout>

Display\_xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="16dp">  
  
 <ListView  
 android:id="@+id/list\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" />  
</LinearLayout>

database helper.kt

package com.example.store\_marks  
import android.content.ContentValues  
import android.content.Context  
import android.database.sqlite.SQLiteDatabase  
import android.database.sqlite.SQLiteOpenHelper  
  
class DatabaseHelper(context: Context) : SQLiteOpenHelper(context, DATABASE\_NAME, null, DATABASE\_VERSION) {  
 companion object {  
 private const val DATABASE\_NAME = "StudentDB"  
 private const val DATABASE\_VERSION = 1  
 private const val TABLE\_STUDENTS = "students"  
 // Columns  
 private const val KEY\_ROLL\_NO = "roll\_no"  
 private const val KEY\_NAME = "name"  
 private const val KEY\_MARK1 = "mark1"  
 private const val KEY\_MARK2 = "mark2"  
 private const val KEY\_MARK3 = "mark3"  
 private const val KEY\_TOTAL = "total"  
 }  
  
 override fun onCreate(db: SQLiteDatabase) {  
 val createTable = """CREATE TABLE $TABLE\_STUDENTS(  
 $KEY\_ROLL\_NO TEXT PRIMARY KEY,  
 $KEY\_NAME TEXT,  
 $KEY\_MARK1 INTEGER,  
 $KEY\_MARK2 INTEGER,  
 $KEY\_MARK3 INTEGER,  
 $KEY\_TOTAL INTEGER  
 )"""  
 db.execSQL(createTable)  
 }  
  
 override fun onUpgrade(db: SQLiteDatabase, oldVersion: Int, newVersion: Int) {  
 db.execSQL("DROP TABLE IF EXISTS $TABLE\_STUDENTS")  
 onCreate(db)  
 }  
  
 fun addStudent(student: Student) {  
 val db = this.*writableDatabase* val values = ContentValues().*apply* **{** put(KEY\_ROLL\_NO, student.rollNo)  
 put(KEY\_NAME, student.name)  
 put(KEY\_MARK1, student.mark1)  
 put(KEY\_MARK2, student.mark2)  
 put(KEY\_MARK3, student.mark3)  
 put(KEY\_TOTAL, student.total)  
 **}** db.insert(TABLE\_STUDENTS, null, values)  
 db.close()  
 }  
  
 fun getAllStudents(): List<Student> {  
 val studentList = *mutableListOf*<Student>()  
 val selectQuery = "SELECT \* FROM $TABLE\_STUDENTS"  
 val db = this.*readableDatabase* val cursor = db.rawQuery(selectQuery, null)  
 cursor.*use* **{** val rollNoIndex = **it**.getColumnIndex(KEY\_ROLL\_NO)  
 val nameIndex = **it**.getColumnIndex(KEY\_NAME)  
 val mark1Index = **it**.getColumnIndex(KEY\_MARK1)  
 val mark2Index = **it**.getColumnIndex(KEY\_MARK2)  
 val mark3Index = **it**.getColumnIndex(KEY\_MARK3)  
 val totalIndex = **it**.getColumnIndex(KEY\_TOTAL)  
 while (**it**.moveToNext()) {  
 val student = Student(  
 rollNo = **it**.getString(rollNoIndex),  
 name = **it**.getString(nameIndex),  
 mark1 = **it**.getInt(mark1Index),  
 mark2 = **it**.getInt(mark2Index),  
 mark3 = **it**.getInt(mark3Index),  
 total = **it**.getInt(totalIndex)  
 )  
 studentList.add(student)  
 }  
 **}** db.close()  
 return studentList  
 }  
}

student.kt

data class Student(  
 val rollNo: String,  
 val name: String,  
 val mark1: Int,  
 val mark2: Int,  
 val mark3: Int,  
 val total: Int  
)

display.kt

package com.example.store\_marks  
  
import android.os.Bundle  
import android.widget.ArrayAdapter  
import android.widget.ListView  
import androidx.appcompat.app.AppCompatActivity  
  
class DisplayResultsActivity : AppCompatActivity() {  
 private lateinit var dbHelper: DatabaseHelper  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*display*)  
  
 dbHelper = DatabaseHelper(this)  
 val listView = findViewById<ListView>(R.id.*list\_view*)  
  
 val students = dbHelper.getAllStudents()  
 val studentDetails = students.*map* **{** "${**it**.rollNo}: ${**it**.name}, Total: ${**it**.total}" **}** val adapter = ArrayAdapter(this, android.R.layout.*simple\_list\_item\_1*, studentDetails)  
 listView.*adapter* = adapter  
 }  
}

main activity.kt

package com.example.store\_marks  
  
import android.content.Intent  
import android.os.Bundle  
import android.widget.Button  
import android.widget.EditText  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
 private lateinit var dbHelper: DatabaseHelper  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 dbHelper = DatabaseHelper(this)  
  
 val rollNoEditText = findViewById<EditText>(R.id.*roll\_no*)  
 val nameEditText = findViewById<EditText>(R.id.*name*)  
 val mark1EditText = findViewById<EditText>(R.id.*mark1*)  
 val mark2EditText = findViewById<EditText>(R.id.*mark2*)  
 val mark3EditText = findViewById<EditText>(R.id.*mark3*)  
 val saveButton = findViewById<Button>(R.id.*save\_button*)  
 val displayResultsButton = findViewById<Button>(R.id.*display\_results\_button*)  
  
 saveButton.setOnClickListener **{** val rollNo = rollNoEditText.*text*.toString()  
 val name = nameEditText.*text*.toString()  
 val mark1 = mark1EditText.*text*.toString().*toIntOrNull*() ?: 0  
 val mark2 = mark2EditText.*text*.toString().*toIntOrNull*() ?: 0  
 val mark3 = mark3EditText.*text*.toString().*toIntOrNull*() ?: 0  
 val total = mark1 + mark2 + mark3  
  
 val student = Student(rollNo, name, mark1, mark2, mark3, total)  
 dbHelper.addStudent(student)  
  
 Toast.makeText(this, "Student details saved", Toast.*LENGTH\_SHORT*).show()  
 **}** displayResultsButton.setOnClickListener **{** val intent = Intent(this, DisplayResultsActivity::class.*java*)  
 startActivity(intent)  
 **}** }  
}

manifest

<activity android:name=".DisplayResultsActivity" />