PRACTICUM EXAM.

Contents

My Read Me Document.

Introduction.

This is my Introduction to Mobile Development practicum exam and welcome to my Music Playlist Manager Application. I have been given the task to create an Android Application using Kotlin in Android Studio. This application makes use of arrays, loops, and screen navigation.

Representations of my application:

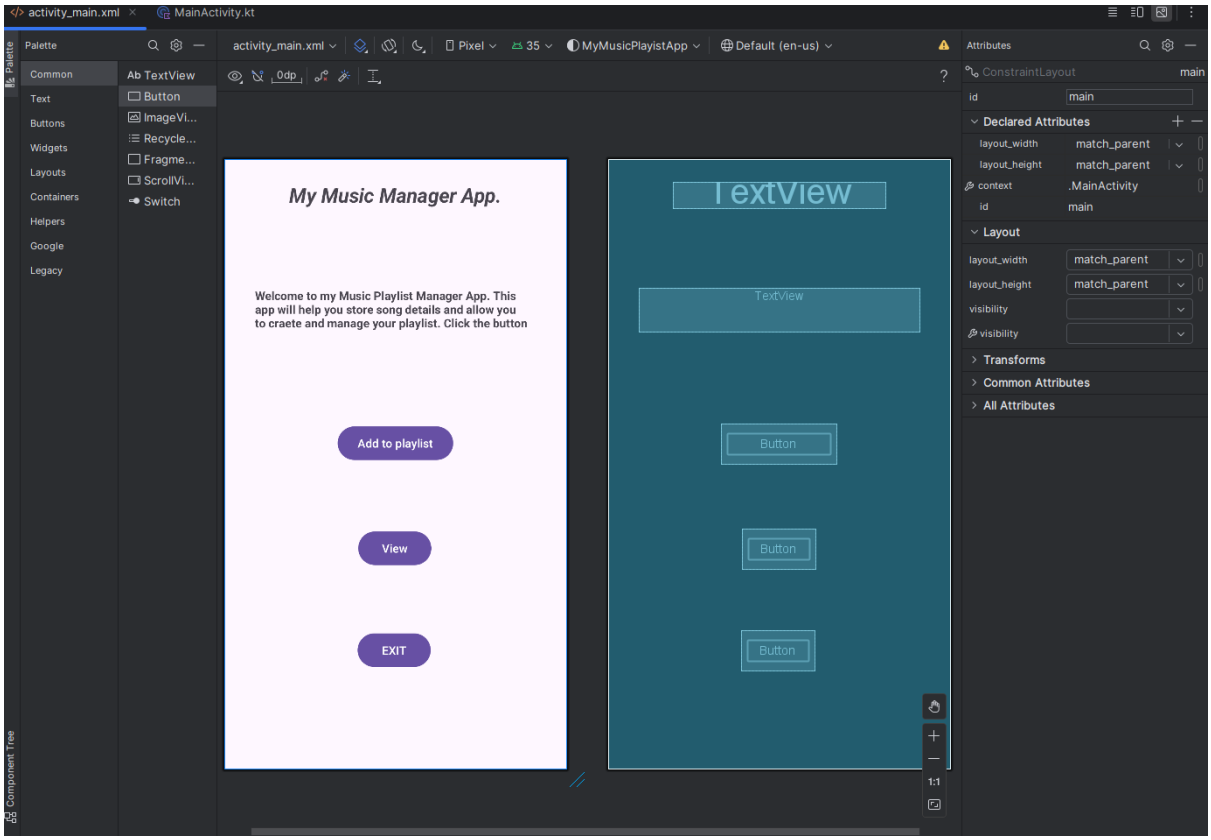

Figure 1: This is my Main Screen for my Music Playlist Manager. (College, 2025)

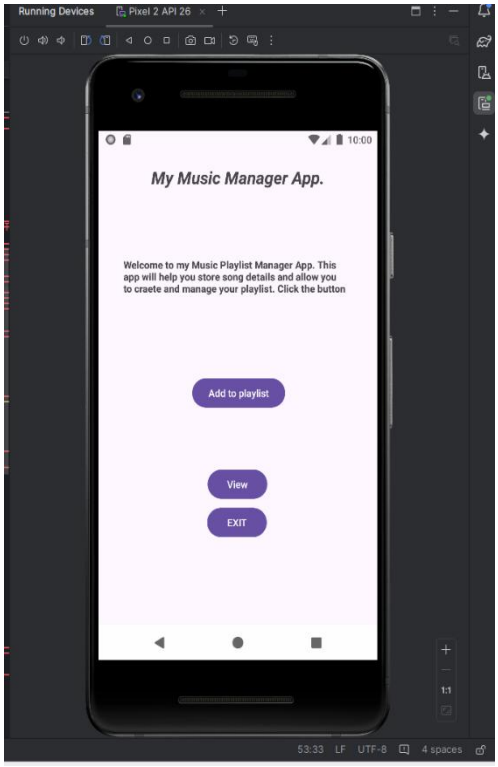

Figure 2 & 3: This is the main screen app with the source code. *(ChatGpt, 2025)& (College, 2025)*

An explanation of the Main Screen:

The Main Screen's heading is ***My Music Manager App.*** The app display consists of a Text View welcome text explaining what the user must do. There is a button written "Add a playlist", a second button written View and a third button written Exit. When the user clicks the "Add a playlist" button, the user will be asked to enter the song details for the playlist and the songs details. (College, 2025)

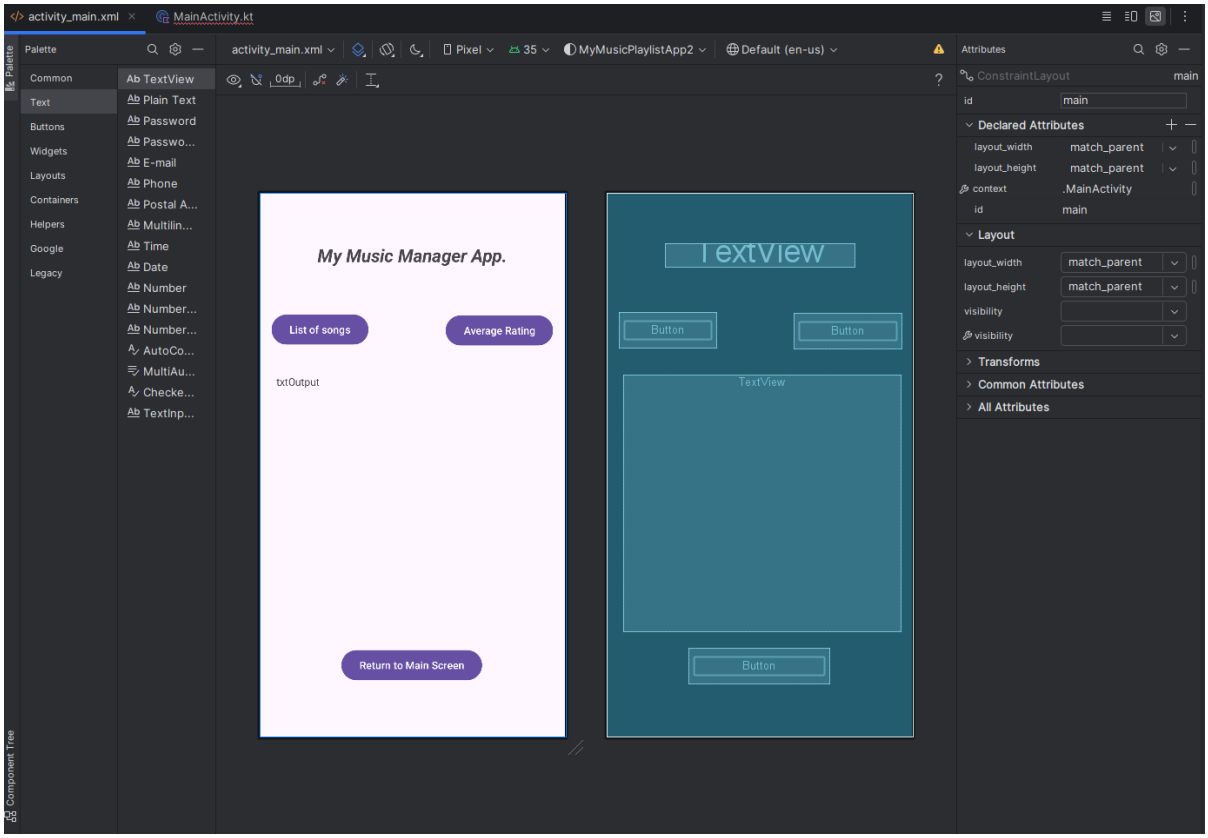

Figure 3: This is my Detailed View Screen for my Music Manager App. *(College, 2025)*

```
activity_main.xml   MainActivity.kt
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

        private lateinit var songs: Array<String>
        private lateinit var artists: Array<String>
        private lateinit var comments: Array<String>
        private lateinit var ratings: IntArray


    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)

        //This is my declarations.
        val btnList = findViewById<Button>(R.id.btnList)
        val btnAverage = findViewById<Button>(R.id.btnAverage)
        val txtOutput = findViewById<TextView>(R.id.txtOutput)
        val btnReturn = findViewById<Button>(R.id.btnReturn)

        songs = intent.getStringArrayExtra( name: "songs") ?: arrayOf()
        artists = intent.getStringArrayExtra( name: "artists") ?: arrayOf()
        ratings = intent.getIntArrayExtra( name: "ratings") ?: intArrayOf()
        comments = intent.getStringArrayExtra( name: "comments") ?: arrayOf()

        btnList.setOnClickListener {
            val builder = StringBuilder()
            for (i in songs.indices) {
                builder.append("${songs[i]} - ${artists[i]} | Rating: ${ratings[i]} | Comment: ${comments[i]}\n")
            }
            txtOutput.text = builder.toString()
        }
        btnAverage.setOnClickListener {
            val avg = ratings.average()
            txtOutput.text = "Average Rating: %.2f".format(avg)
        }
        btnReturn.setOnClickListener {
            finish()
        }
```

Figure 4: This is the source code for my Detailed View Screen. *(College, 2025) & (ChatGpt, 2025)*

An explanation of my Detailed View Screen:

The Detailed View Screen's heading will also be **My Music Manager App.** The app's display consists of button written List of songs that when clicked should display the list of songs with the corresponding details, a second button written Average Rating that when clicked should calculate and display the average rating, a third button written Return to Main Screen and a text view box that should display the output needed (College, 2025).

A Features Summary:

- This app uses **parallel arrays** for the songs, artists, ratings and comments.
- This app includes **loops** for listing and averaging.
- This app uses **navigation** between two screens.
- This app includes **error handling** for inputs.
- This app allows a **playlist addition** and **average rating calculation.**

Links:

Referencing.

Bibliography

ChatGpt. (2025). *How to create a Music Playlist Mnager App using arrays, loops and screen navigation*. A.I.

College, T. I. (2025). *Introduction to Mobile Development.* Pretoria: ARC & The IIE.