Music Player System

Project Report submitted in partial
fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

Submitted by

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IN

COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF COMPUTING SCIENCE AND ENGINEERING.

Under the Supervision of
Sir.Aanjey Mani Tripathi

ASSINSTANT PROFESSOR

November –December 2021

School of Computing Science and Engineering

BONAFIDE CERTIFICATE

Certified that this project report **" MUSIC PLAYER (BOOM BOX) "** is the bona fide work of " Deepak Kumar (18SCSE1010404) ,Rajan Kumar(18SCSE1010096) , who carried out the project work under my supervision.

SIGNATURE OF DEAN
Munish Sabharwal

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Computer Science and Engineering

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Mr.Aanjey Mani Tripathi

SUPERVISOR
Assistant Professor
Computer Science and Engineering

Approval Sheet

This thesis /dissertation /report entitled MUSIC PLAYER (BOOM BOX) is the bona fide work of Deepak Kumar (18SCSE1010404), Rajan Kumar (18SCSE1010096), is approved for the degree of B.Tech CSE.

Examiners

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Supervisor (s)

Mr.Aanjey Mani Tripathi

Assistant Professor

Computer Science and Engineering

_____

Date: 04-12-2021

Place: Greater Noida,,UP

Statement of Project Report Preparation

1. Thesis title: Music Player System (Boom Box)

2. Degree for which the report is submitted: Ongoing

3. Project Supervisor was referred to for preparing the report.

4. Specifications regarding thesis format have been closely followed.

5. The contents of the thesis have been organized based on the guidelines.

6. The report has been prepared without resorting to plagiarism.

7. All sources used have been cited appropriately.

8. The report has not been submitted elsewhere for a degree.

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Rajan Kumar 18SCSE1010096

ABSTRACT

In recent years, the emergence of smart phones has changed the definition of mobile phones. Phone is no longer just a communication tool, but also an essential part of the people's communication and daily life. Various applications added unlimited fun for people's lives. It is certain that the future of the network will be the mobile terminal.

Now the Android system in the electronics market is becoming more and more popular, especially in the smartphone market. Because of the open source, some of the development tools are free, so there are plenty of applications generated.

Our aim is to develop an android application in order to solve the problem for complex functions and large required memory of mobile phone music player in the current market, a new music player of simple, convenient, less required memory as well as user-friendly is developed. Based on the Android technology, using the Java language and Android studio tools lead to design and coding of music player. These systems have a nice interface and smooth operation. These Apps won’t steal any personal information, but can exclude useless information and bring a wonderful user experience.

The new design mainly realizes core functions including main play interface, playlists, menus, play settings.

This player has merits of high performance, simple operation, and run independently on the Android mobile devices. At the same time, the player can also browse and access files in mobile phones.

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INTRODUCTION

Android is open source code mobile phone operating system that comes out by Google in November 2007. Its appearance has broken the traditional closed mobile phone operating system. The ability to customise the operating system and functions of a mobile phone according to personal preferences is one of Android's most appealing features. This article's music player is a Google Android-based application software.

The Android application for mobile terminals also shattered the traditional view of mobile terminals. And appreciating music is one of the best ways to de-stress in today's demanding culture.

It provides a very convenient hardware platform for developers, allowing them to spend less time putting their ideas into action . This makes Android can get further development. As smart phones and the Android operating system become more popular, tasks like as listening to music, watching films, tweeting, and other similar tasks can now be transferred from a computer to a phone.

Many players focus on flashy design and functionality, wasting resources on the user's mobile phone, such as enormous amounts of required memory and CPU, which causes a lot of inconvenient multitasking. Many functions are ineffective for the average user.

The goal of this post is to create a player that can play most popular music file formats. It is possible to explore and query the storage space, as well as perform operations such as adding, deleting, and playing. Meanwhile, this software can play, pause, and select songs with the most recent Btn and the next Btn according to the user's preferences, as well as arrange music in a specific order.

At the moment, music players based on Android applications are very popular in the market.

With the completion of the Android operating system, developers now have a wonderful platform on which to learn popular computer technology and combine it with learned knowledge, master the latest knowledge, enrich oneself, and have fun.

LITERATURE REVIEWS

Research and Development of Mobile Application for Android Platform

We will test the app in three environments including hardware, software and network. Test hardware environment will be Acer Predator laptop and any android phone; software environment is windows 7 & window 8 and phone system environment is android 4.0.3. The results of testing each feature on a mobile phone and a computer simulator revealed that the audio player works smoothly and there is no advertising.

Design of Android based Media Player

Many users like to sing along with the song. With a rapid development of communication and network, we thought that we will try to add lyrics of every song so if user forgot or mispronounced any Word, he/she can have a look on the lyrics.

The android Application Development College Challenge

Android application development college challenge has only been held two times, but it greatly encourages and promotes the creativity of the college students. It will be more difficult to win an award as the event attracts more and more competitive teams. This challenge gives us an opportunity to learn about that a lot

of ideas we think about can be implemented on android platform.

The Android - A Widely Growing Mobile Operating System With its Mobile based Applications

Android operating system is one of the most widely used mobile Operating System these days and also enhancing its use for making betterment in different areas of life. Android mobile operating system is based on the Linux kernel and is developed by Google and primarily designed for smartphones and tablets. Android Operating System consist of four main layers, the specifying architecture is given in this paper.

The advanced Smart applications of android in mobile, real-time and wireless sensor network are widening their service areas. Android is a disruptive technology, which was introduced initially on mobile handsets, but has much wider potential.

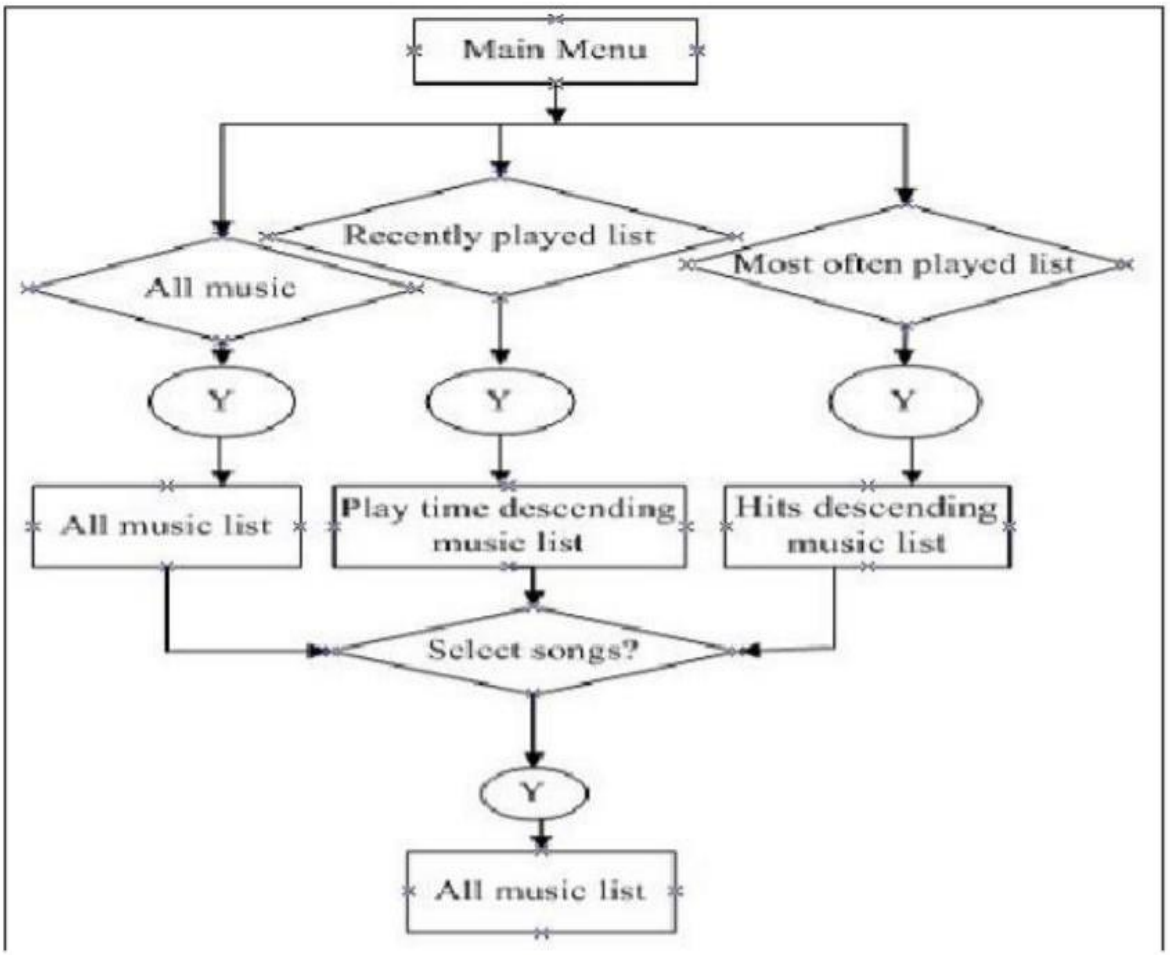
In this paper we are studying, one of the smart and enhancing Android operating system application which are based on Automated and tracking from remote distance. These application helps students, teachers, parents, patients and users of home appliance as anytime and anywhere basis.

Music related to emotions

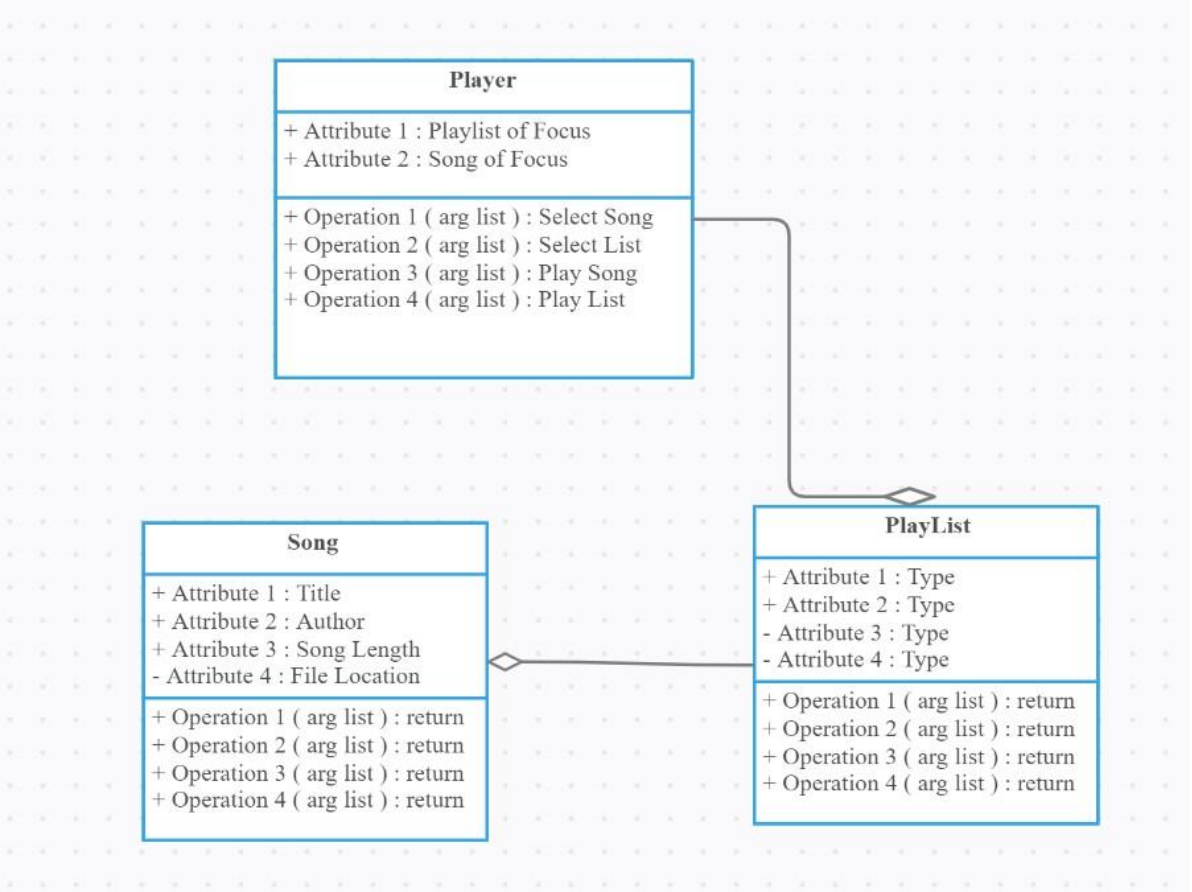
Origin of concept Music and its use for emotion regulation processes, still remains an unanswered question. Many experimental layouts encompassing its daily life use and clinical applications across different cultures and continents have preserved music as a self-regulative tool.

Music intervention and emotion regulation measures were viewed and included only when at least forms of music participation (singing, playing, listening, and engagement) were noted in the study and effects on emotion regulation were directly measured.

System process/Design of music player



Class Diagram



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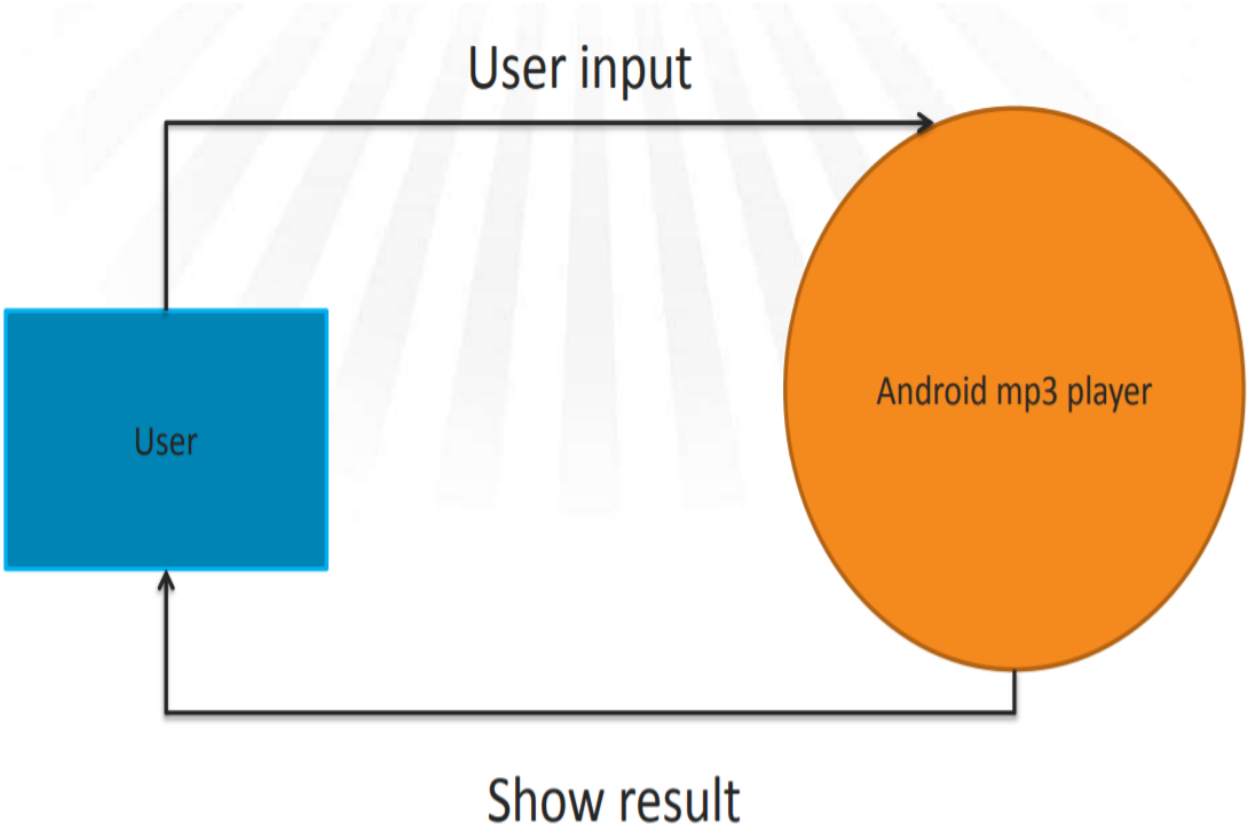

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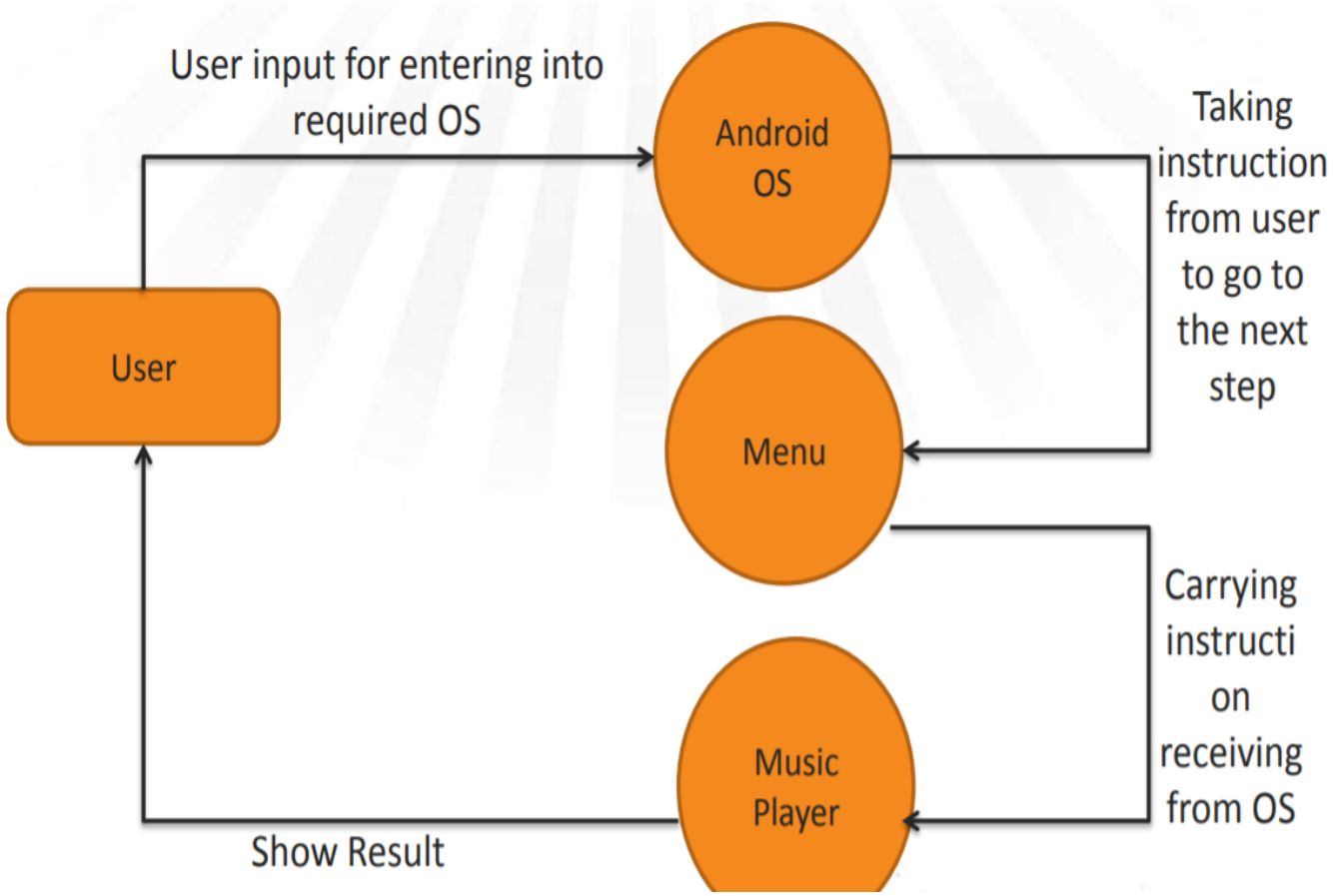
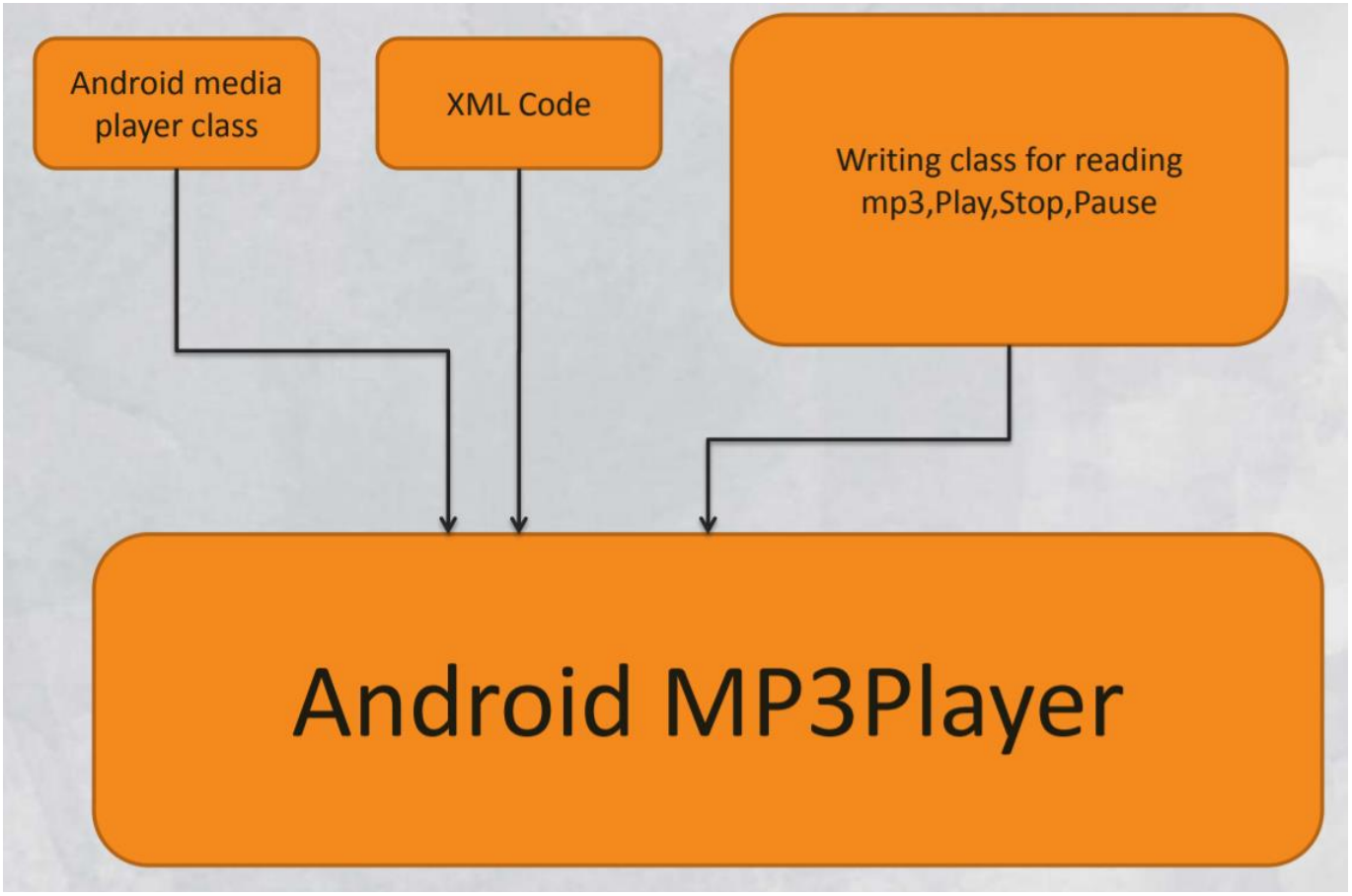

User input for entering into required OS
Android OS
Taking instruction from user to go to the next step
User
Menu
Carrying instructi on receiving from OS
Music Player
Show Result

Building Blocks of Android Code



PROBLEM FORMULATION

Many users like to listen to music and sing along with the song. With the rapid development of communication and network, we thought that we will try to add lyrics of every song so if user forgot or mispronounced any word, he/she can have a look on the lyrics.

Advertisements irritates every person while listening to the music. So, in our music app there will be no advertisements. We will also try that our music player can run almost in any android version.

Tools used for implementation

- Android studio
- Java
- XML

SYSTEM FEATURES

Functional Requirements

- Android operating system on the Smartphone.
- The target device should be sound enabled.
- The android version should not be less than 5.

PLAYLIST MENU

- Play
- Stop
- Pause
- Next song
- Previous song

HARDWARE REQUIREMENTS

WINDOWS

- Microsoft® Windows® 8/7/Vista (32 or 64-bit)
- i3 Processor Based Computer or higher
- 2 GB RAM minimum, 4 GB RAM recommended
- 400 MB hard disk space
- At least 1 GB for Android SDK, emulator system images, and caches
- Java Development Kit (JDK) 7
- Optional for accelerated emulator: Intel® processor with support for Intel® VT-x, Intel® EM64T (Intel® 64), and Execute Disable (XD) Bit functionality.

ANDROID

- Android OS 4.0 or above
- 1.2 Quad core Processor or higher
- 512MB RAM
- 300MB Disk space

FEASIBILITY ANALYSIS

This section verified that it is feasible to add music player on the Android system from the aspects of economic, technical and social feasibility.

Economic feasibility

To design Android mobile phone music player as long as a computer has the Android development and the application development of Android is free. In addition, mobile phone music player is basic needs for public.

The information that which functions are necessary form all the consumers, which functions are needed for some people, and which features are seldom to use is easy to understand. And a lot of research is eliminated, thus saved the spending. Therefore, the whole process of development doesn’t need to spend any money that is economic feasibility.

Technical feasibility

To design a music player which meets the basic requirements, a deep understand of JAVA language, Android studio, and the Android system architecture, application of framework and other technical knowledge are needed. (framework is the core

of the application, and rules that all the programmers participating in the development must abide by).

Social feasibility

With the rapid development of the mobile phone market, all kinds of audio and video resources are widely circulated on the Internet. These resources seem ordinary, but have gradually become an indispensable part of people life, which derived the development of all kinds of mobile phone player. But a lot of players devoted to fancy appearance, strong function causing a lot of wasted resources to the user's mobile phone and bringing a lot of inconvenience to the user as multitasking operation is needed. Some functions are useless to ordinary people.

Powerful player is a good thing, but a lot of functions are actually useless for most users. Aimed at these problems, developing multiplied audio player which owns the features of simplified functions, common play function, meeting the needs of most users, less required memory and high quality of playing music, maximizes the optimization in performance.

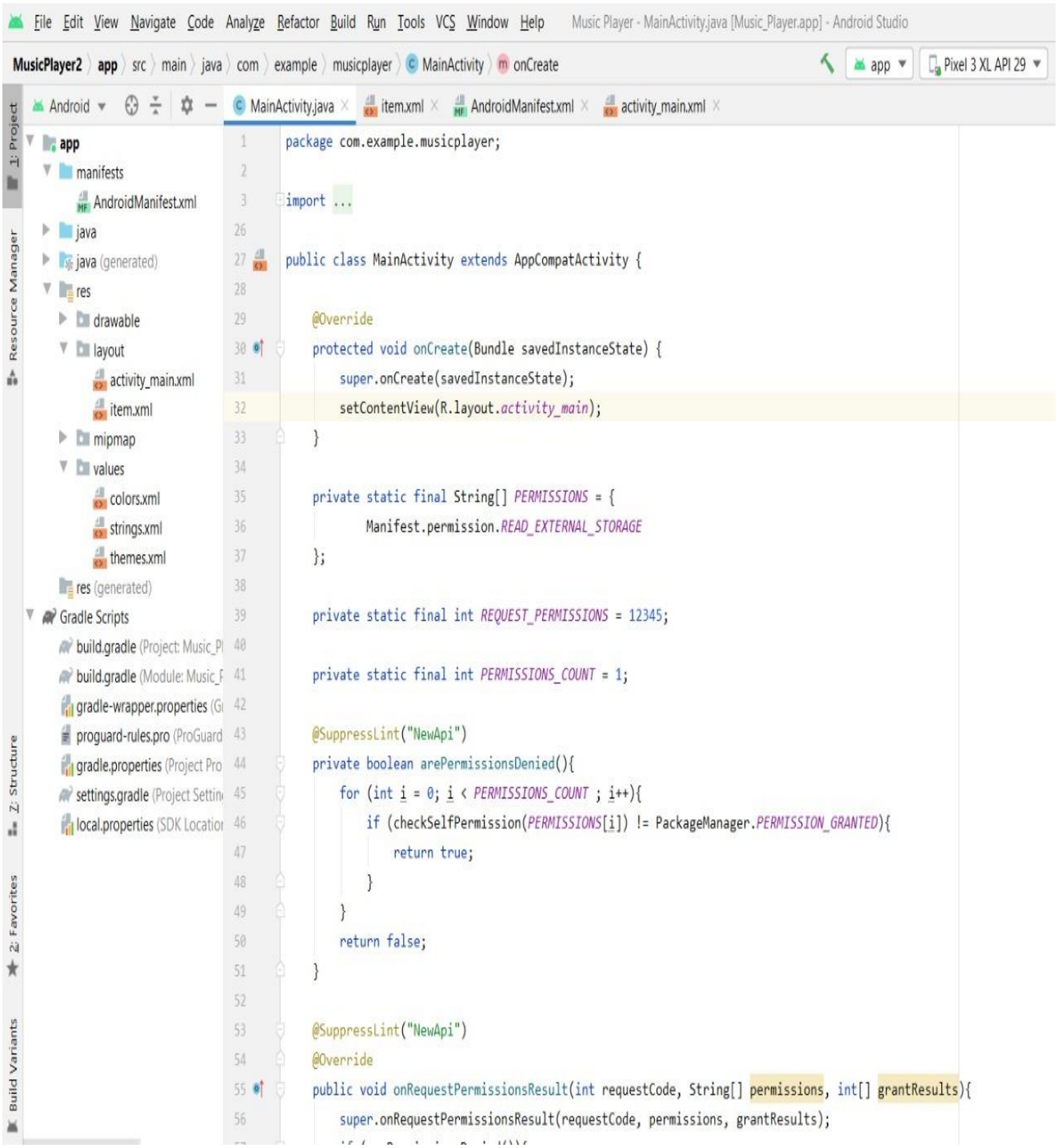
Merits of music player app

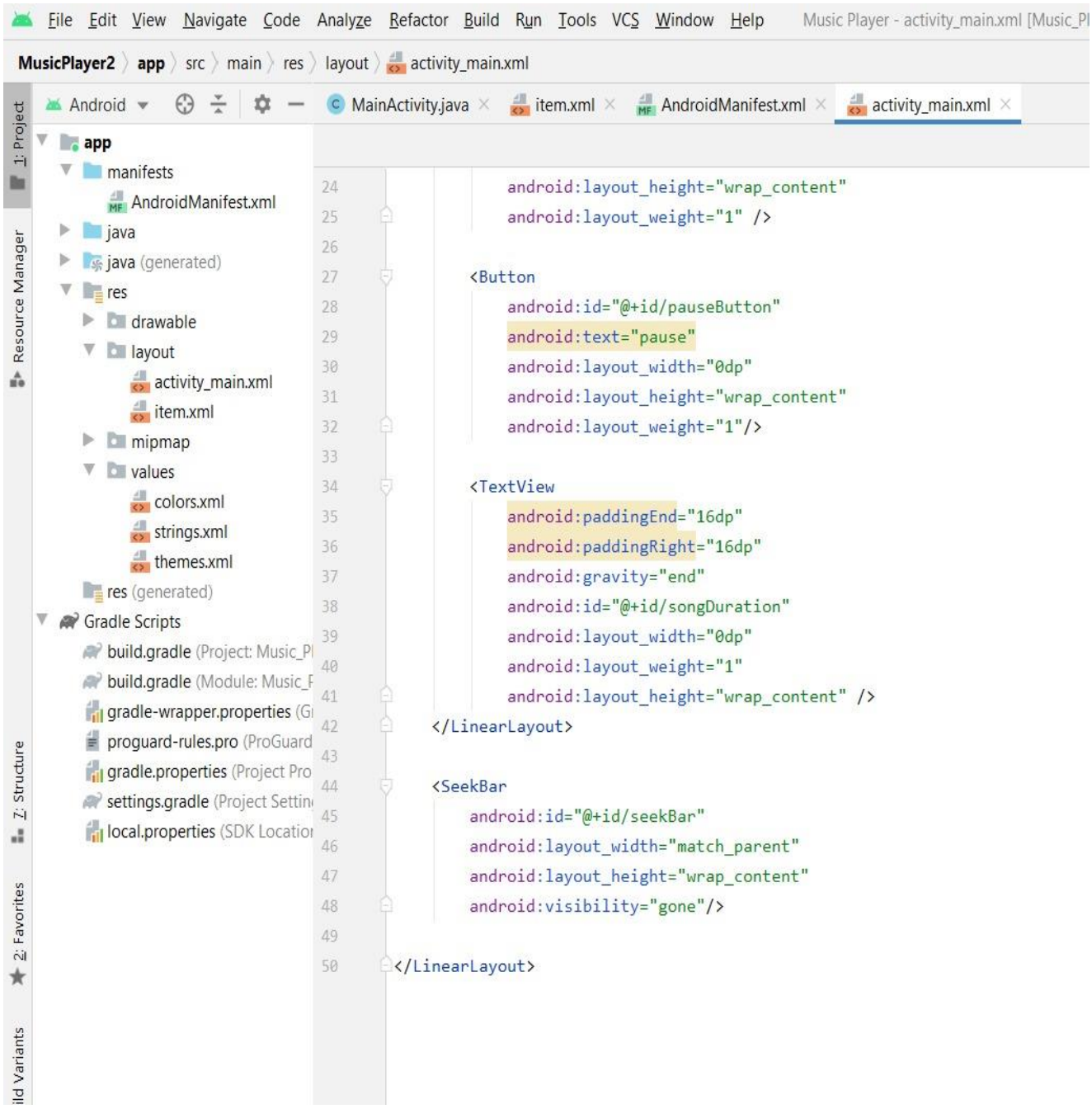
- Synchronization according to user recommendation
- Music player technology offers low data size (the file size). The smaller file size enables the user to rip a large amount of music files on the disc and the distribution of music is less expensive with the advent of music player.
- The individual artists, new entrants & music companies can promote their music online.
- You don’t need to be a computer expert to use music player.

CONCLUSION

Through the development of music player on Android platform, we get a clear understanding of overall process of the system. The core part of the music player is mainly composed of main interface, playlists, menus, play Settings, file browsing and song search. Grasping the development of the six parts, the music player has had the preliminary scale. Based on the function of the six categories, add some other small features. Music player system realized the basic function of player: play, pause, and stop, up/down a, volume adjustment, lyrics display, play mode, song search, file browser, playlists query, and other functions. This development implicated the popular mobile terminal development technology. This is the combination management of Java language in the open source mobile platform based on Linux system+ + SQLite database support+ Share Preference configuration file.

Implementation of Project Modules




File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Music Player - activity_main.xml [Music_Pl
MusicPlayer2 app src main res layout activity_main.xml
Android
MainActivity.java
item.xml
AndroidManifest.xml
activity_main.xml
app
manifests
AndroidManifest.xml
java
java (generated)
res
drawable
layout
activity_main.xml
item.xml
mipmap
values
colors.xml
strings.xml
themes.xml
res (generated)
Gradle Scripts
build.gradle (Project: Music_Pl
build.gradle (Module: Music_P
gradle-wrapper.properties (Gr
proguard-rules.pro (ProGuard
gradle.properties (Project Pro
settings.gradle (Project Settin
local.properties (SDK Locatior
1: Project
Resource Manager
7: Structure
2: Favorites
ild Variants
android:layout_height="wrap_content"
android:layout_weight="1" />
<Button
android:id="@+id/pauseButton"
android:text="pause"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_weight="1"/>
<TextView
android:paddingEnd="16dp"
android:paddingRight="16dp"
android:gravity="end"
android:id="@+id/songDuration"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="wrap_content" />
</LinearLayout>
<SeekBar
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android:visibility="gone"/>
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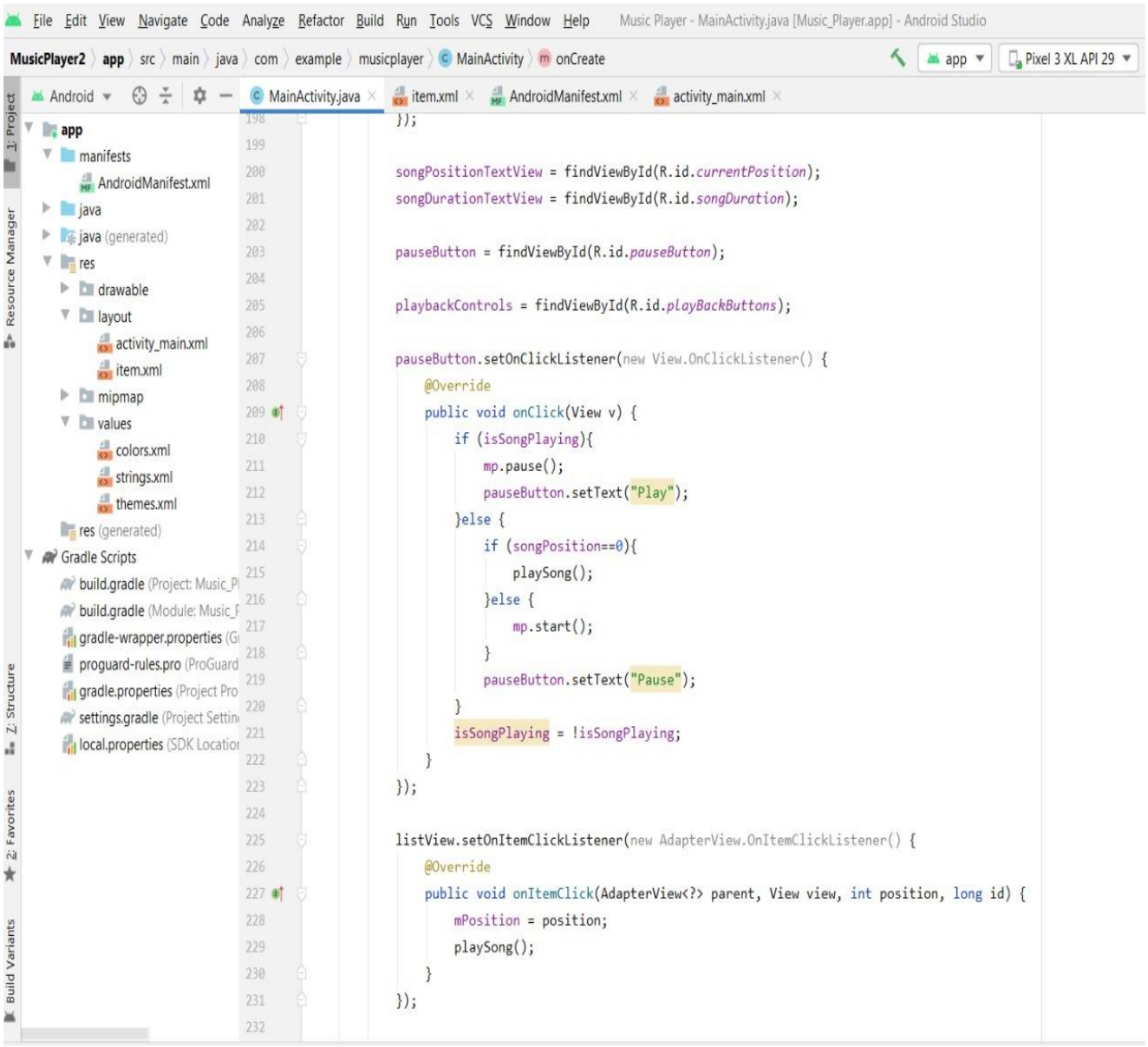
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Music Player - MainActivity.java [Music_Player.app] - Android Studio
MusicPlayer2 app src main java com example musicplayer MainActivity onCreate
app
Pixel 3 XL API 29
Android
MainActivity.java
item.xml
AndroidManifest.xml
activity_main.xml
app
manifests
AndroidManifest.xml
java
java (generated)
res
drawable
layout
activity_main.xml
item.xml
mipmap
values
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Gradle Scripts
build.gradle (Project: Music_Pl
build.gradle (Module: Music_F
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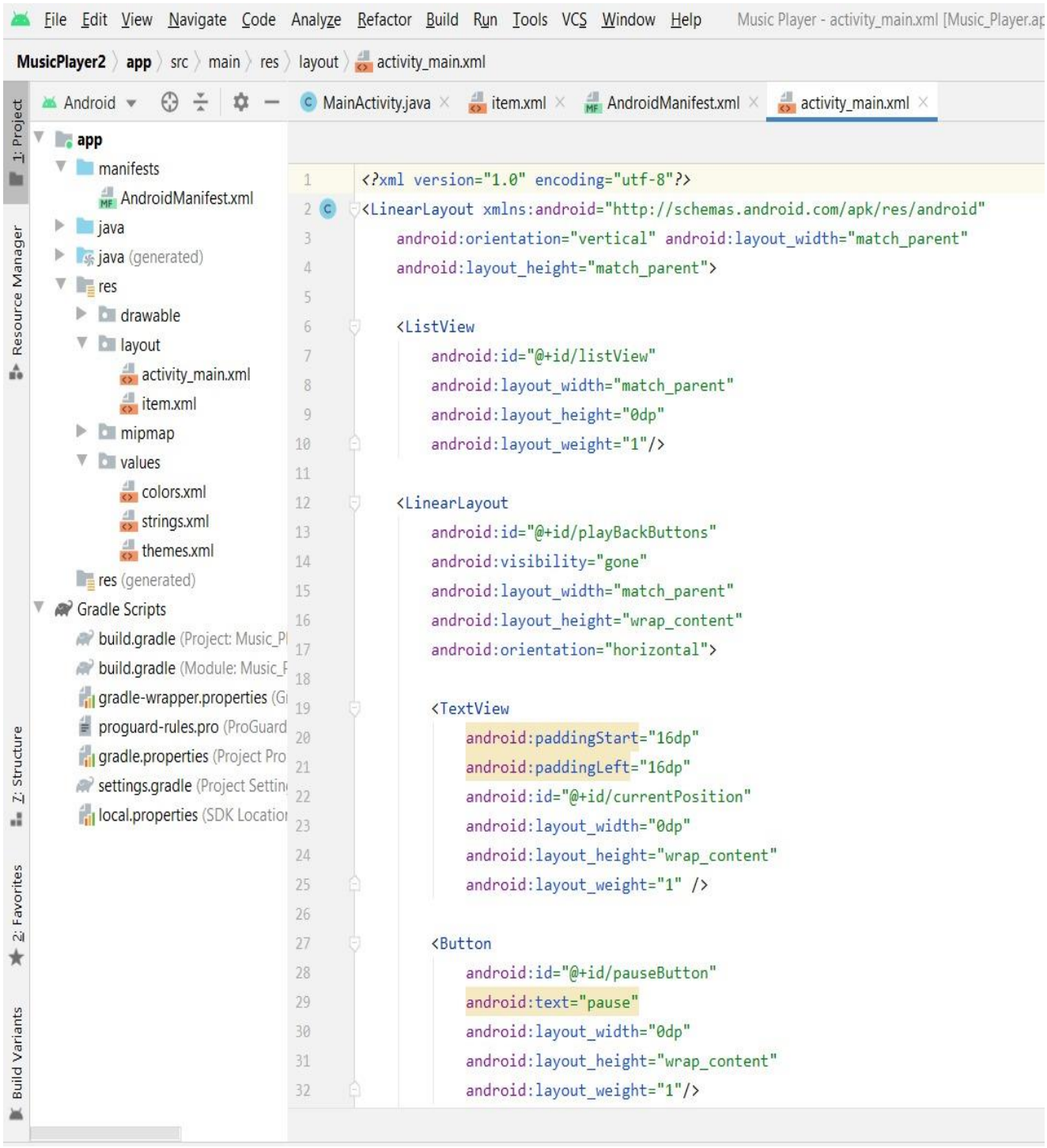
gradle.properties (Project Pro
settings.gradle (Project Settin
local.properties (SDK Locatio
1: Project
Resource Manager
Z: Structure
2: Favorites
Build Variants
});
songPositionTextView = findViewById(R.id.currentPosition);
songDurationTextView = findViewById(R.id.songDuration);
pauseButton = findViewById(R.id.pauseButton);
playbackControls = findViewById(R.id.playBackButtons);
pauseButton.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
if (isSongPlaying){
mp.pause();
pauseButton.setText("Play");
}else {
if (songPosition==0){
playSong();
}else {
mp.start();
}
pauseButton.setText("Pause");
}
isSongPlaying = !isSongPlaying;
}
});
listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
@Override
public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
mPosition = position;
playSong();
}
});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MusicPlayer2 app src main res layout activity_main.xml
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proguard-rules.pro (ProGuard
gradle.properties (Project Pro
settings.gradle (Project Settin
local.properties (SDK Locatior
1: Project
Resource Manager
Z: Structure
2: Favorites
Build Variants
<?xml version="1.0" encoding="utf-8"?>
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android:orientation="vertical" android:layout_width="match_parent"
android:layout_height="match_parent">
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android:layout_height="wrap_content"
android:orientation="horizontal">
<TextView
android:paddingStart="16dp"
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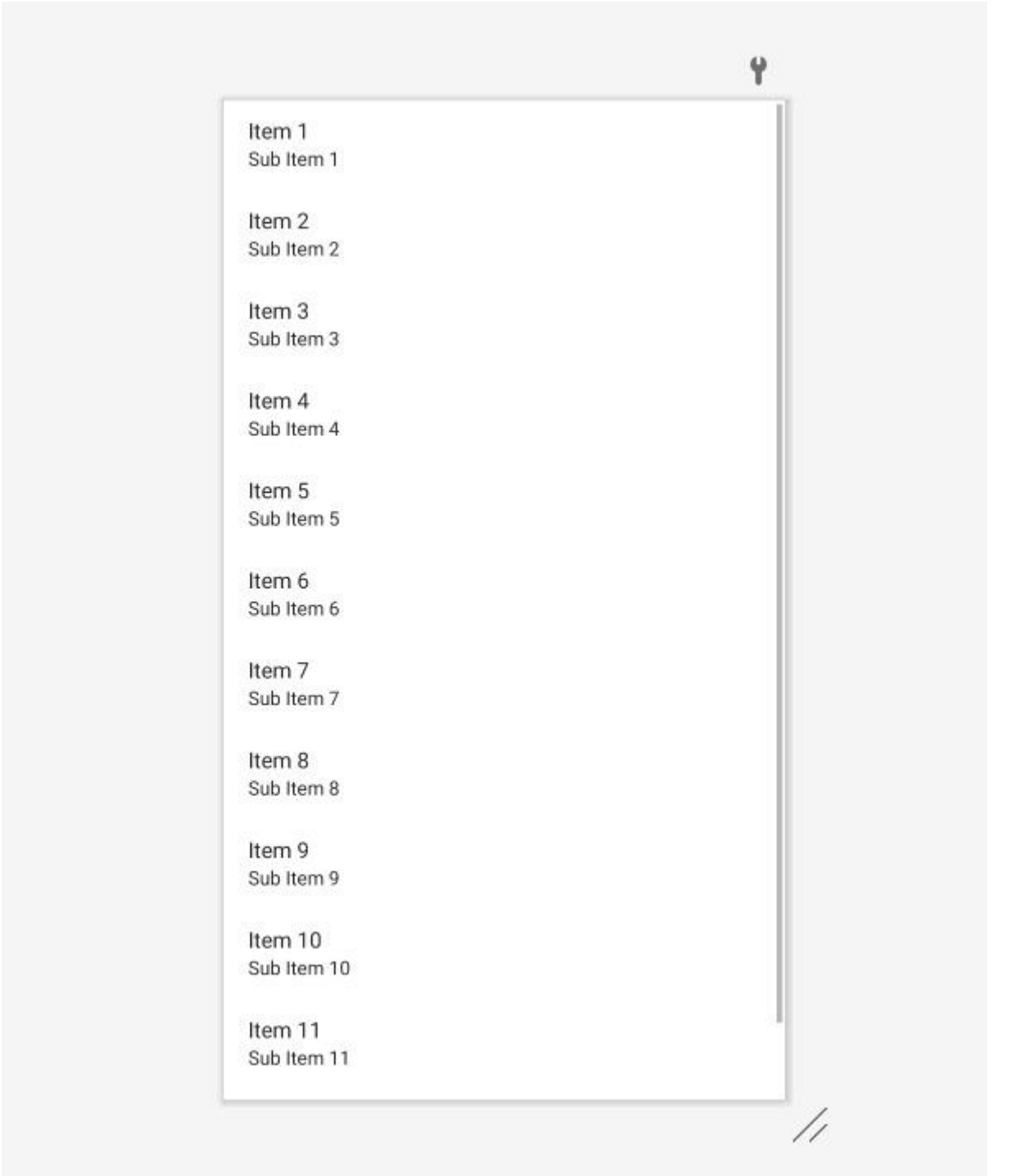
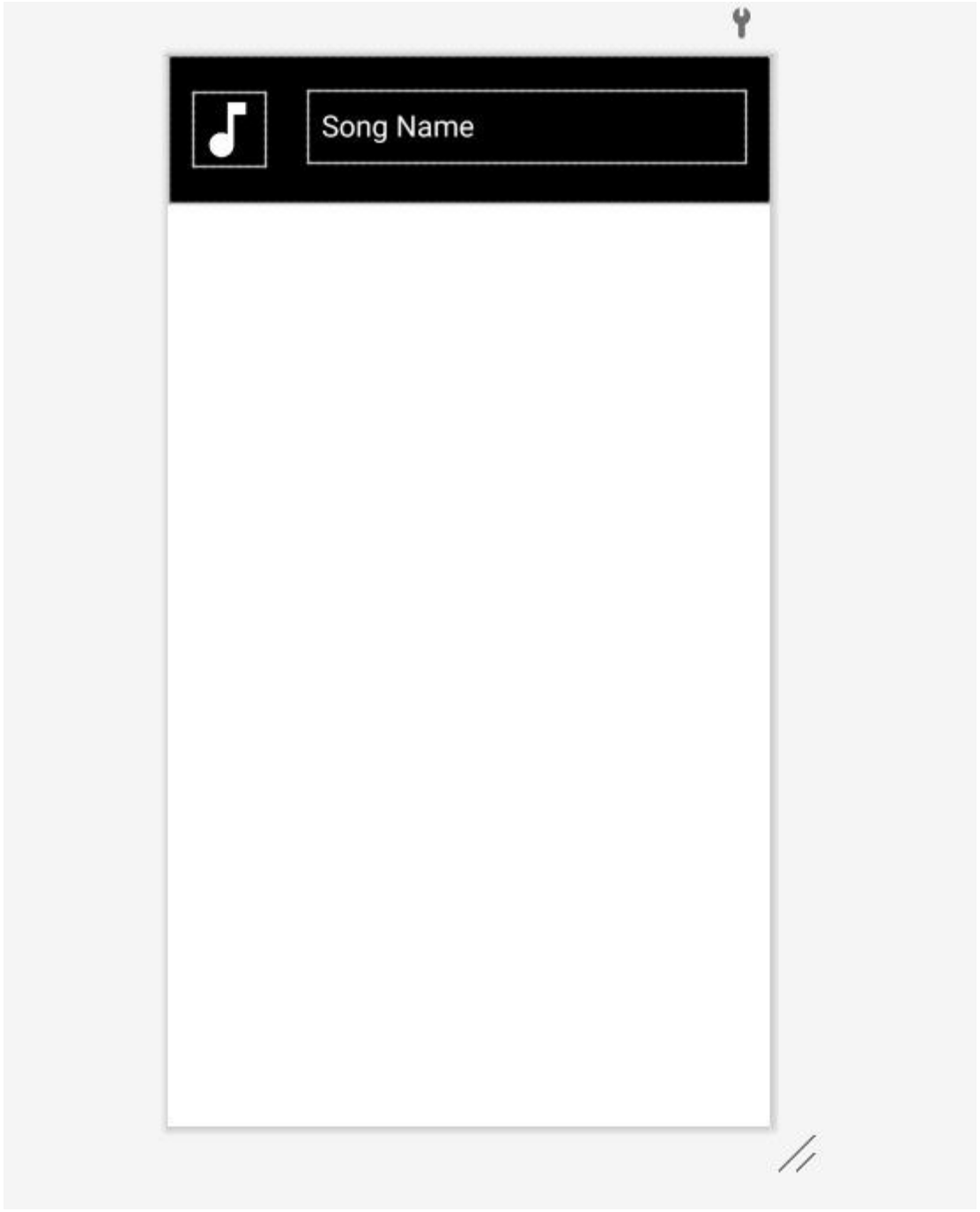
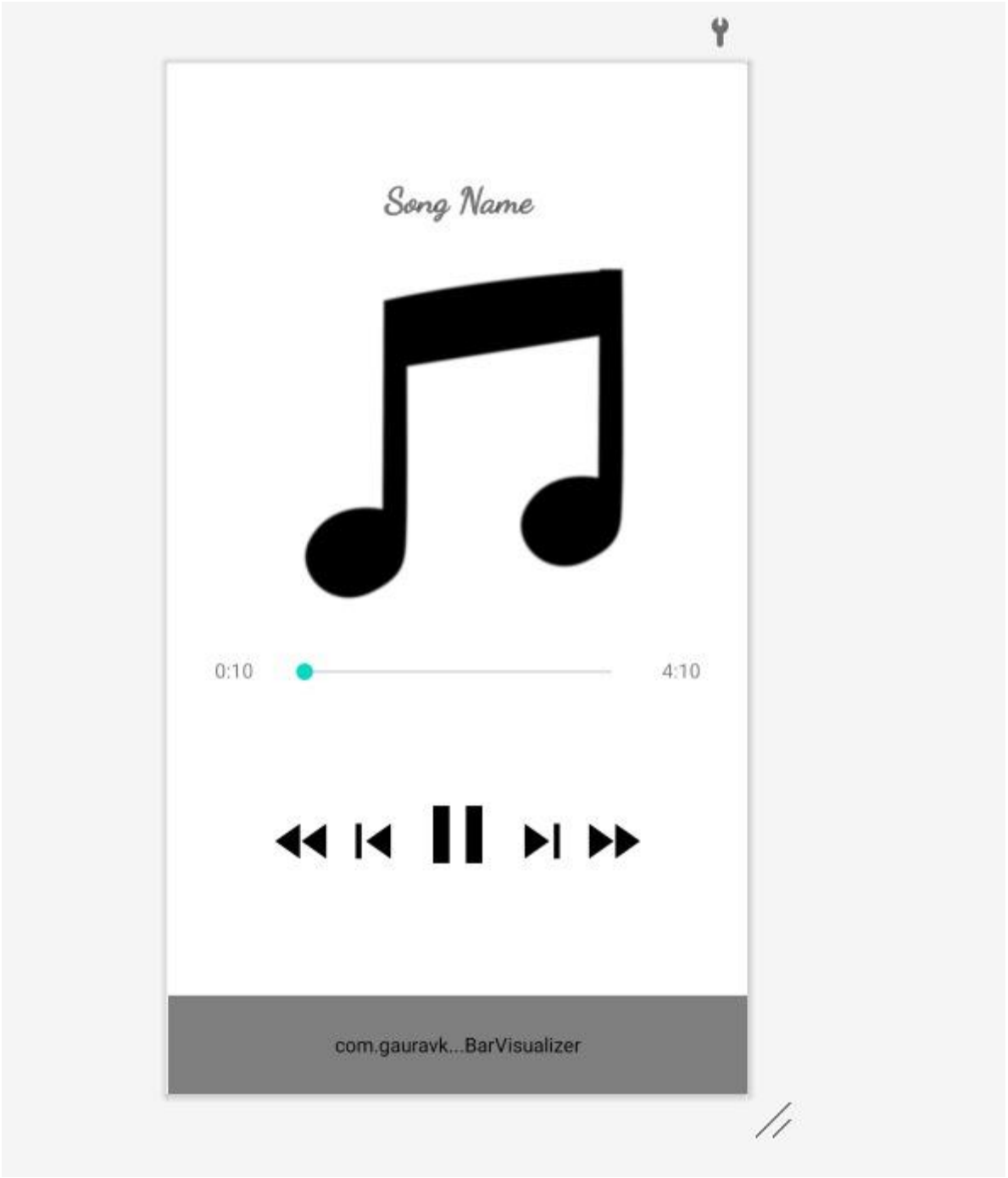
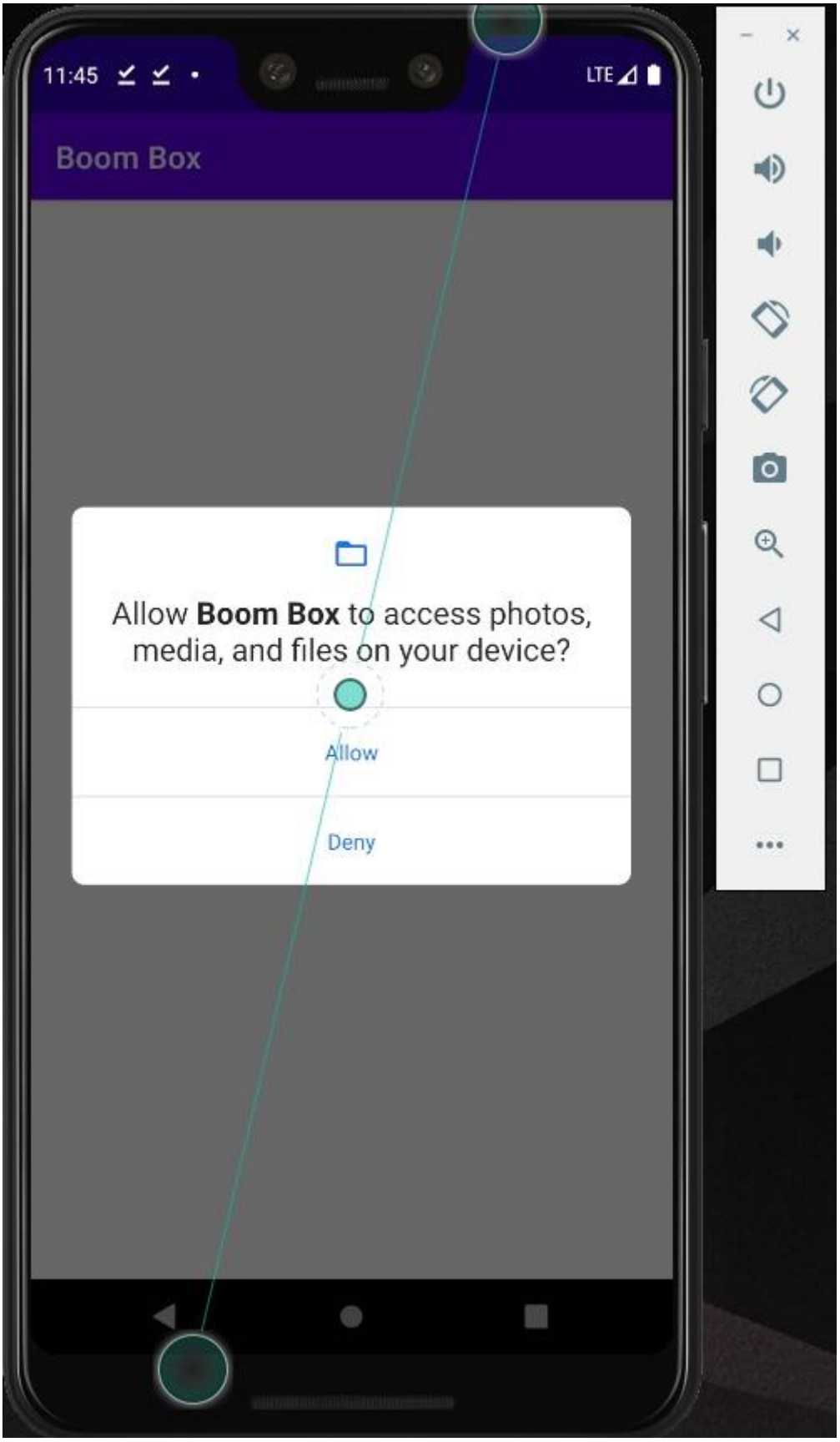
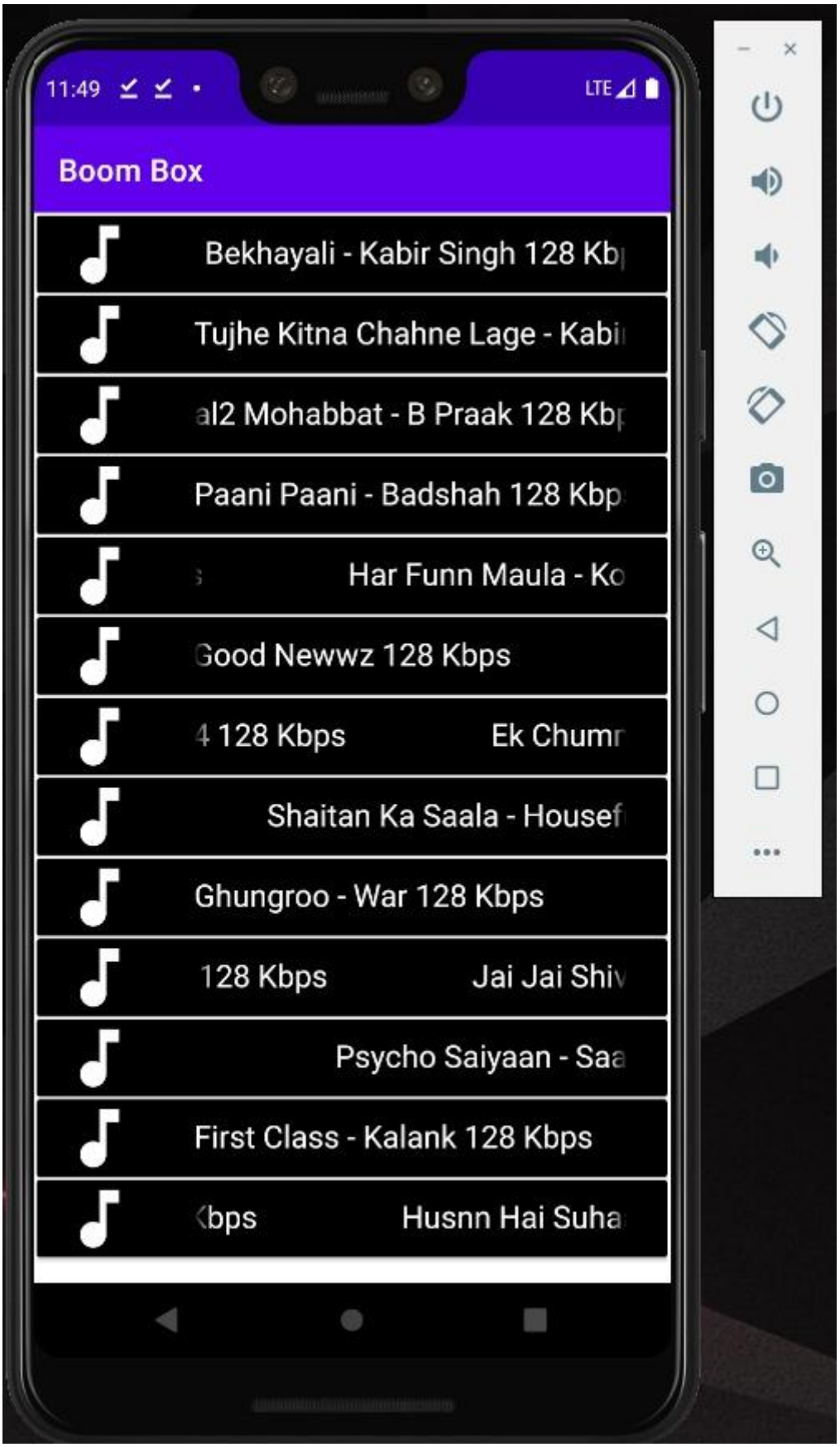
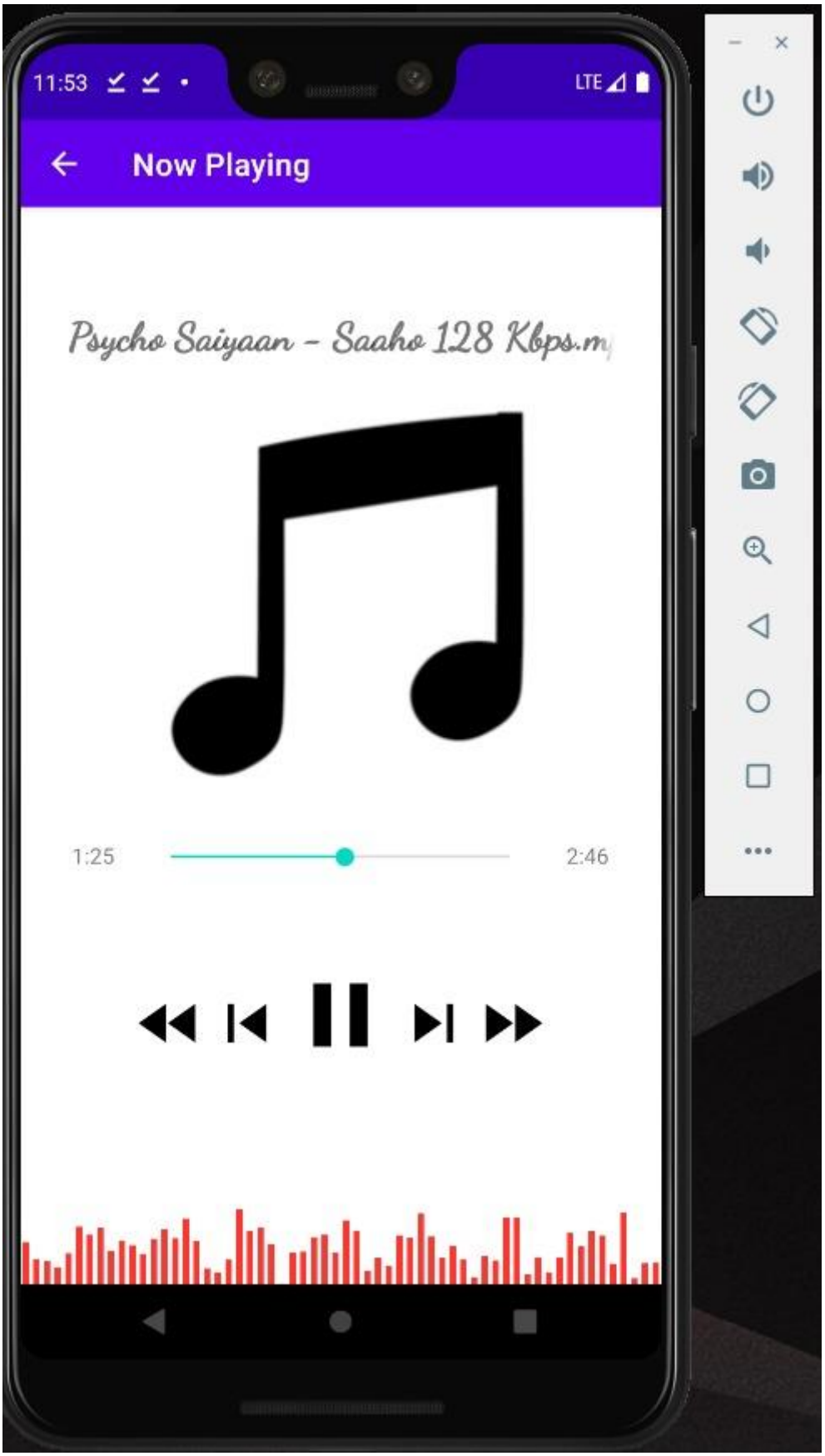

Item 1
Sub Item 1
Item 2
Sub Item 2
Item 3
Sub Item 3
Item 4
Sub Item 4
Item 5
Sub Item 5
Item 6
Sub Item 6
Item 7
Sub Item 7
Item 8
Sub Item 8
Item 9
Sub Item 9
Item 10
Sub Item 10
Item 11
Sub Item 11

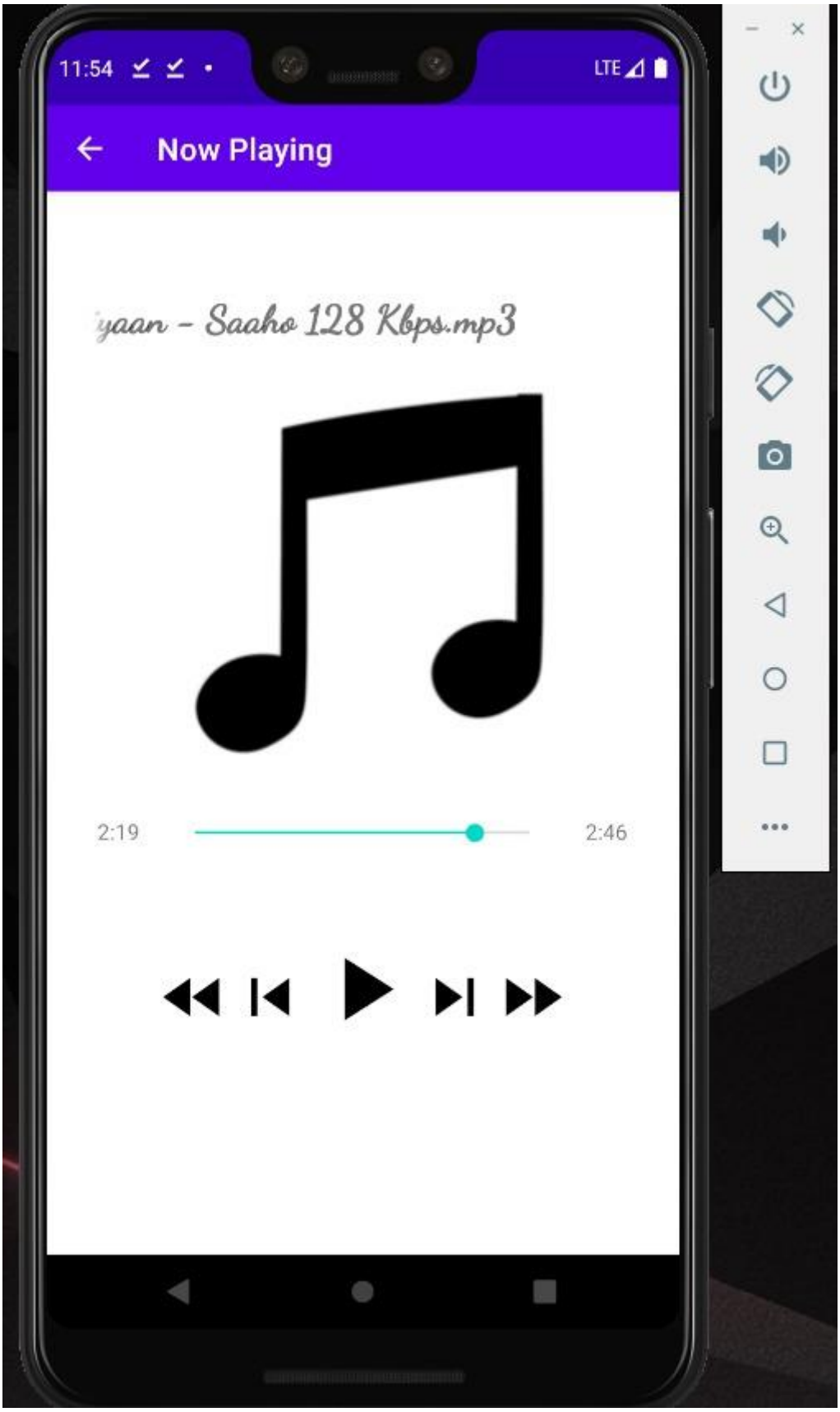

Song Name


Song Name
0:10
4:10
com.gauravk...BarVisualizer


11:45
LTE
Boom Box
Allow Boom Box to access photos, media, and files on your device?
Allow
Deny


11:49
LTE
Boom Box
Bekhayali - Kabir Singh 128 Kb
Tujhe Kitna Chahne Lage - Kabi
al2 Mohabbat - B Praak 128 Kb
Paani Paani - Badshah 128 Kbp
Har Funn Maula - Ko
Good Newwz 128 Kbps
4 128 Kbps
Ek Chumr
Shaitan Ka Saala - Housef
Ghungroo - War 128 Kbps
128 Kbps
Jai Jai Shiv
Psycho Saiyaan - Saa
First Class - Kalank 128 Kbps
Kbps
Husnn Hai Suha


11:53
LTE
Now Playing
Psycho Saiyaan – Saaho 128 Kbps.m
1:25
2:46


11:54
LTE
Now Playing
yaan - Saaho 128 Kbps.mp3
2:19
2:46

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THANK YOU