KANPUR INSTITUTE OF TECHNOLOGY

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Music Application System

A

Report Submitted in partial fulfillment for the requirements of the award of the degree

Of

BACHELOR OF TECHNOLOGY

IN

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&

INFORMATION TECHONOLGY

Submitted to

MR. BALRAM SHARMA

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Submitted by

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DECLARATION

We declare that

a. A work contained in this report is original and has been done by us under the guidance of our supervisor.
b. The work has not been submitted to any other institute for any degree.
c. We have followed the guidelines provided by the institute to prepare the report.
d. We have conformed to the norms and guidelines given in the ethical code of conduct of the institute.
e. Wherever we have used materials (data, theoretical analysis, figures, and text) from other sources, we have given due credit to them by citing them in the text of the report and giving their details in the references.

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CERTIFICATE

This is to certify that the project entitled "**Music Application System**", submitted by **Shubhi Singh and Khushi Mishra** in the Department of Computer Science & Information Technology of Kanpur Institute Of Technology, affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh, is a record of bonafide project work carried out by them under my supervision and guidance and is worthy of consideration for the award of the degree of Bachelor of Technology in Computer Science & Information Technology of the institution.

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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 smart phone 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

Introduction
The Music Application System is a web-based application that allows users to listen music without any interruptions. This application is a music streaming application which provides a free platform to listen music without downloading it. The software is user-friendly from login to listening music. With various features, users can enjoy listening to their favorite songs with ease. Interactive GUI and have a ability to manage songs in a clean and easily accessible playlist.

Problem solving
Some music players are only available online. So, this application provides the offline platform for users to listen their favorite and millions of songs. This application also provides a facility to play, pause, restart and stop the song. In this application users will use the offline option to stream the album of their choice and listen without using internet.

Objective
The main objectives of the Music Application System are as follows:

- To provide an interface through which user can easily access their songs playlist and listen without the interruption of internet.
- This application is a freemium application also.
- This music player will have all the features found in any typical music player.
- In this application user can add, play, pause and seek songs that have been added.
- This application gives you access to millions of songs and other content from creators all over the world whichever you want to save in your playlist.
- Basic functions such as playing music are totally free.
- The goal of this project is to build a website that mimics the appearances and also some of the basic functionalities of a popular music-streaming platform.

CHAPTER-2

FEASIBILITY STUDY

Feasibility

A feasibility study is an analysis that considers all of a project's relevant factors—including economic, technical, legal, and scheduling considerations—to ascertain the likelihood of completing the project successfully. Whether a project is feasible or not can depend on several factors, including the project's cost and return on investment, meaning whether the project generated enough revenue or sales from consumers. However, a feasibility study isn't only used for projects looking to measure and forecast financial gains. In other words, feasible can mean something different, depending on the industry and the project's goal. For example, a feasibility study could help determine whether a hospital can generate enough donations and investment dollars to expand and build a new cancer center. Although feasibility studies can help project managers determine the risk and return of pursuing a plan of action, several steps, and best practices should be considered before moving forward.

Benefits of a Feasibility Study

There are several benefits to feasibility studies, including helping project managers discern the pros and cons of undertaking a project before investing a significant amount of time and capital into it. Feasibility studies can also provide a company's management team with crucial information that could prevent them from entering into a risky business venture. Feasibility studies also help companies with new business development, including determining how it will operate, potential obstacles, competition, market analysis, and the amount and source of financing needed to grow the business. Feasibility studies aim for marketing strategies that could help convince investors and banks that investing in a particular project or business is a wise choice.

Types of Feasibility

1. Economic Feasibility
2. Technical Feasibility
3. Social Feasibility

Economic Feasibility

Economic analysis is most frequently used for the evaluation of the effectiveness of the system. More commonly known as cost/benefit analysis the procedure is to determine the benefit and saving that is expected from a system and compare them with costs, and decisions are made to design and implement the system. This part of the feasibility study gives the top management the economic justification for the new system. This is an important input to the management because very often the top management does not like to get confounded by the various technicalities that are bound to be associated with a project of this kind. A simple economic analysis that gives the actual comparison of costs and benefits is much more meaningful in such cases. In the system, the organization is most satisfied by economic feasibility. Because, if the organization implements this system, it need not require any additional hardware resources as well as it will be saving a lot of time.

Technical Feasibility

Technical feasibility centers on the existing manual system of the test management process andto what extent it can support the system. According to the feasibility analysis procedure, the technical feasibility of the system is analyzed and the technical requirements such as software facilities, procedure, and inputs are identified. It is also one of the important phases of the system development activities. The system offers greater levels of user-friendliness combined with greater processing speed. Therefore, the cost of maintenance can be reduced. Since processing speed is very high and the work is reduced from the maintenance point of view management convince that the project is operationally feasible.

Social Feasibility

People are inherently resistant to change and the computer has been known to facilitate changes. An estimate should be made of how strong the user is likely to move towards the development ofa computerized system.

These are various levels of users to ensure proper authentication and authorization and security of sensitive data of the organization.

Technology used

HTML

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML.CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

JAVASCRIPT

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities. JavaScript is a scripting language for creating dynamic web page content.

It creates elements for improving site visitors' interaction with web pages, such as dropdown menus, animated graphics, and dynamic background colors.

System features

Functional Requirements

- Android operating system on the Smart phone.
- 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

CHAPTER-3
PROJECT DESCRIPTION

Project Description

The Music Application System is a web-based application that allows users to listen music without any interruptions. This application is a music streaming application which provides a free platform to listen music without downloading it. The software is user-friendly from login to listening music. With various features, users can enjoy listening to their favorite songs with ease. This application's page displays the artist's name with the songs they composed and you can add the songs to the required playlists and hear it.
Also, we can subscribe to our favorite artists to know the upcoming songs and events. This application also provides a facility to play, pause, restart and stop the

song. In this application users will use the offline option to stream the album of their choice and listen without using internet. This music player will have all the features found in any typical music player. The goal of this project is to build a website that mimics the appearances and also some of the basic functionalities of a popular music-streaming platform.

Features of music system

Registration / signing up	An essential option that identifies the user to synchronize his playlist and music in service. You may use social media authorization and enjoy getting new subscribers in a matter of taps.
Track search	Give users the capability to find music they want to hear and you'll get an army of loyal users.
Catalog	Provide users with a music catalog to help them find how many music contents your service offers. It might seem obvious, but there are a lot of bad examples on the market when developers have ignored this feature.
Push notifications	Recent research discovered that push notifications lead to higher engagement across all categories, but most of all, impact a music apps' engagement. See exactly how on the chart below.

Other Features Required

High performance- As the critical features of leading services are almost the same, the app's performance may become the deciding point. The app needs to present good speed and less resource consumption. It should take less than 300ms for the music to start playing from the moment a listener has selected a song.

Bitrates- To stream music, it should be digitized, i.e., broken down into a series of audio snapshots. Then, our brains interpret all these snapshots together as a continuous sound. The quality of streaming music is called bitrates. There are three different audio qualities available for mobile apps:

- Normal (96kbps)
- High (160kbps)
- Extreme (320kbps)

High-resolution sound aims to give you CD-like, or better than CD-sound, in a convenient package of streaming from your phone or as a digital file on a dedicated player.

Music Store Applications

Music Store Applications are an elaboration on the music streaming services with a more prominent commercial trading element in their service. Applications like Pandora, Garage Band, and YouTube Music belong to this niche. The main features of music store apps are:

- **Monetization-** The majority of modern music store applications encourages the listener to buy the release or paid a subscription to unlock premium features.
- **Engagement**- In addition to music being the primary source of user engagement, music store applications also apply standard ecommerce engagement tactics, such as special offers, season discounts, and bonuses.

- **Feedback**- The networking element is also more prominent as Music Store Applications encourage user input in the form of comments and reviews that help other users in consideration of their purchases.

Music Storage Apps

Music Storage Applications are music players like Amazon and Google Music. Such apps are plugged straight into your storage, which might be the phone's internal storage or general cloud storage. In a way, you can make your own music player - fully curated by the user. The main music player app development characteristics are:
Uploading- Apart from a music store feature, such apps also allow external uploads.
Customization- The purpose of a music storage app is to curate the specific selection of media in a much customized manner.
Playback- The key element for such an application is a playback feature which might involve a more significant extent of custom sound equalizing and other playlist moderation features.

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.

DASHBOARD DESIGN

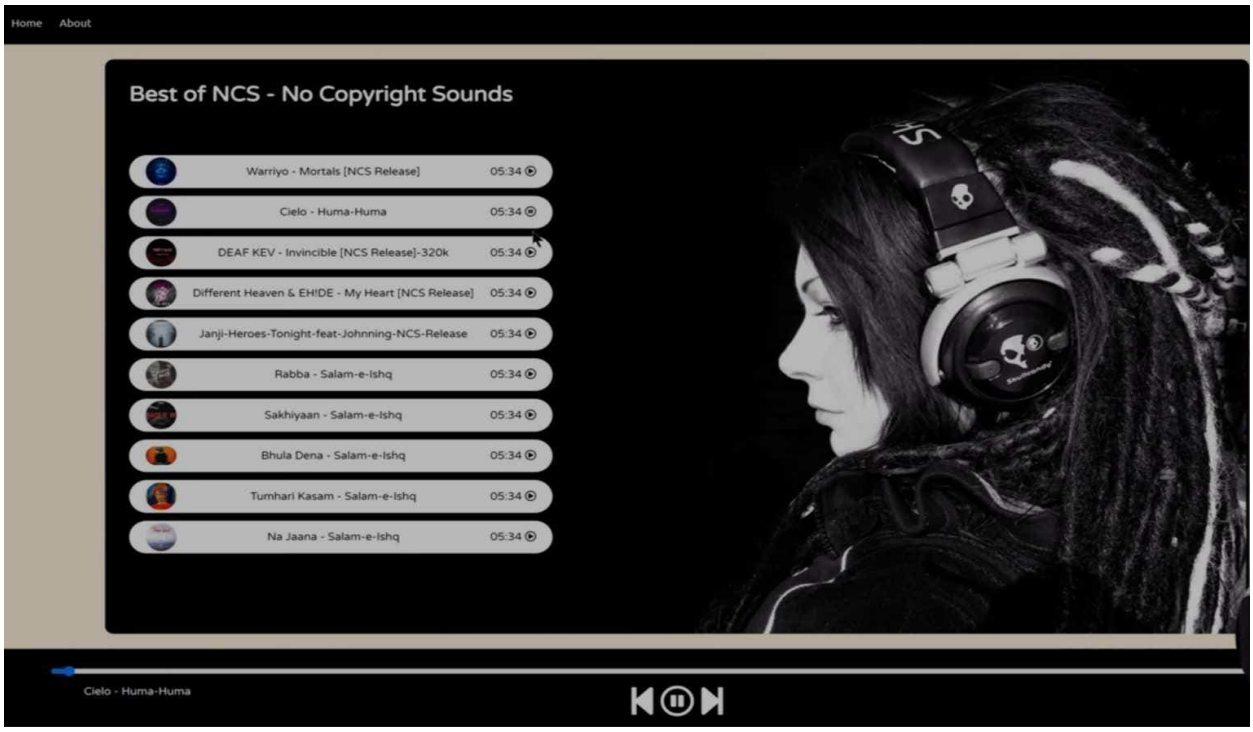

Figure 3.1 Dashboard Design

System Process/Design of Music Player

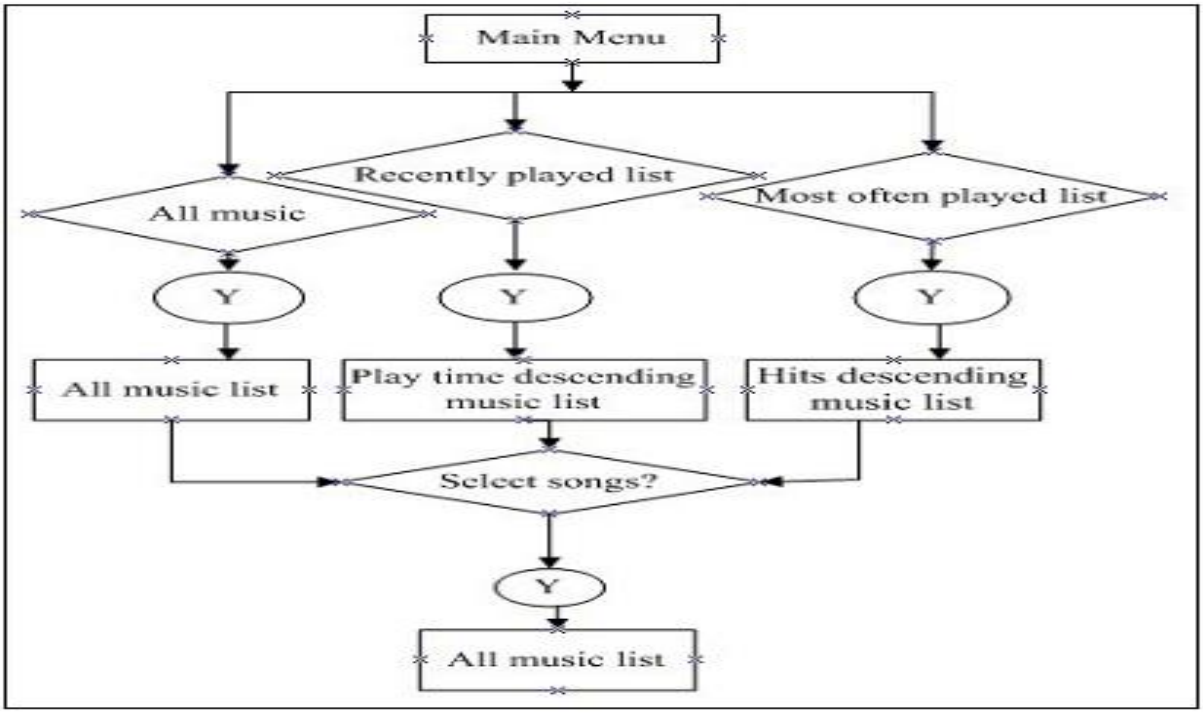

Figure 3.2 Design of Music Application System

CLASS DIAGRAM

The class diagram is the main building block of object-oriented modeling. It is used for general conceptual modeling of the structure of the application, and for detailed modeling, translating the models into programming code. Class diagrams can also be used for data modeling

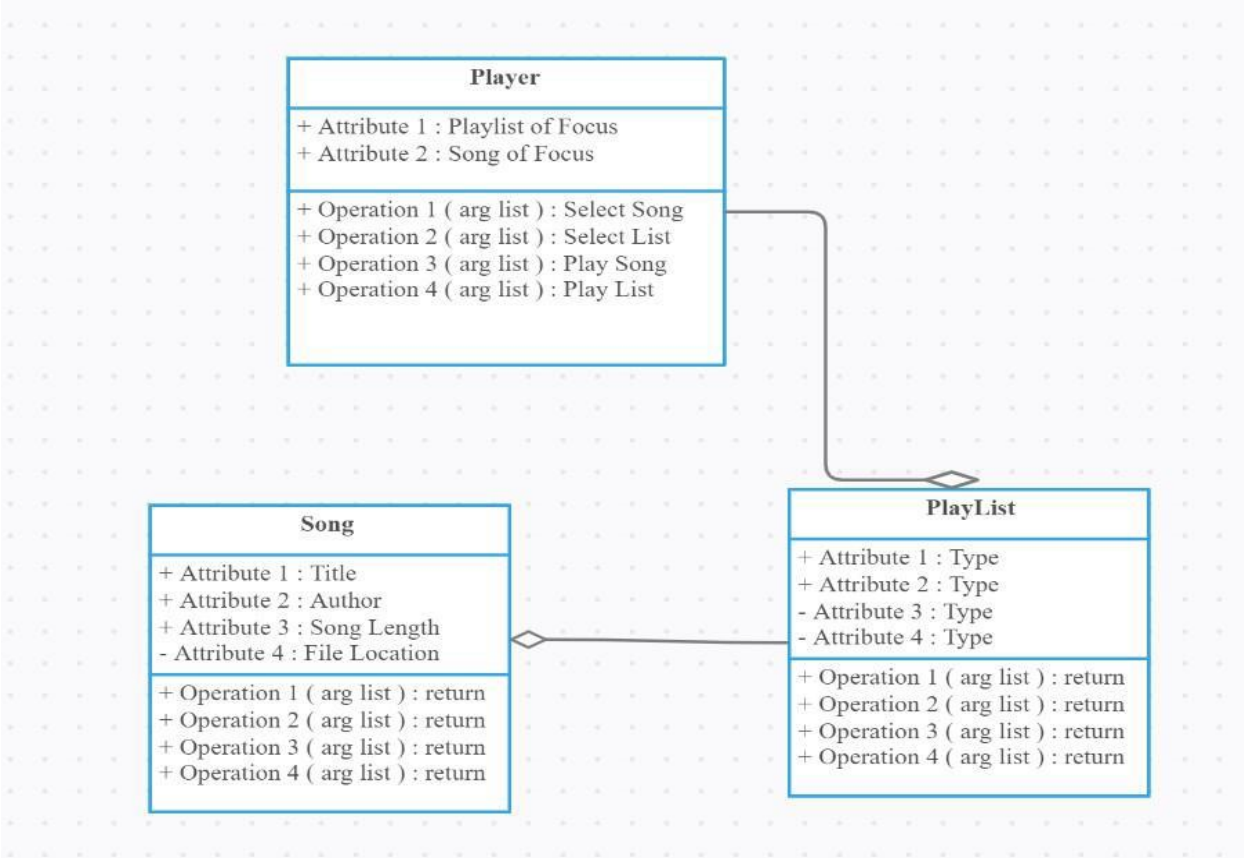

Figure 3.3 Class Diagram

ENTITY-RELATIONSHIP DIAGRAM

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.

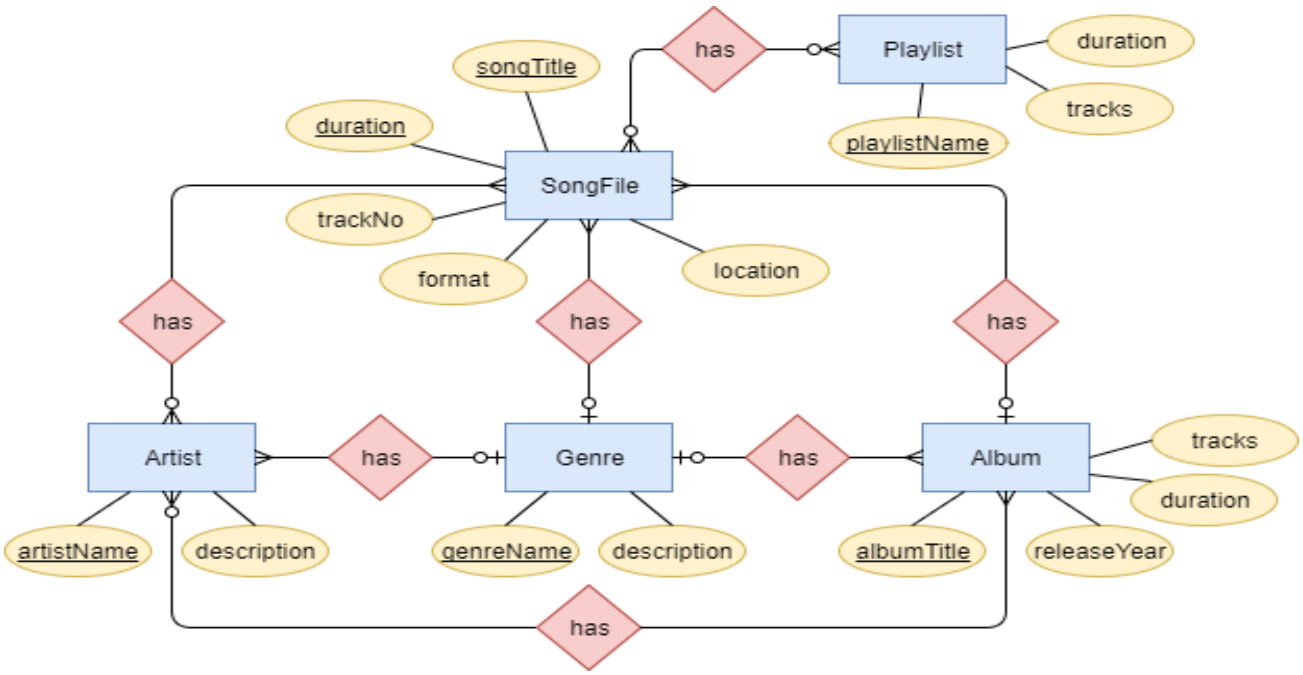

Figure 3.4 Entity Relationship Diagram

DATA FLOW DIAGRAMS

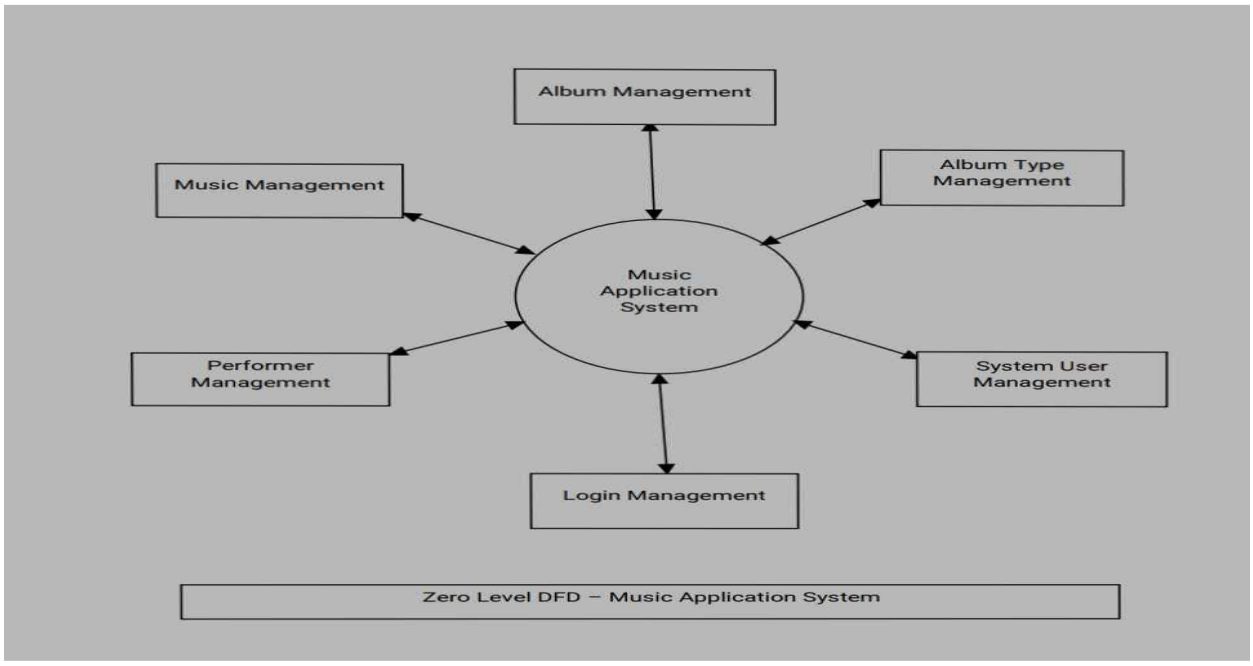

Figure 3.5 Data Flow Diagram (Level 0)

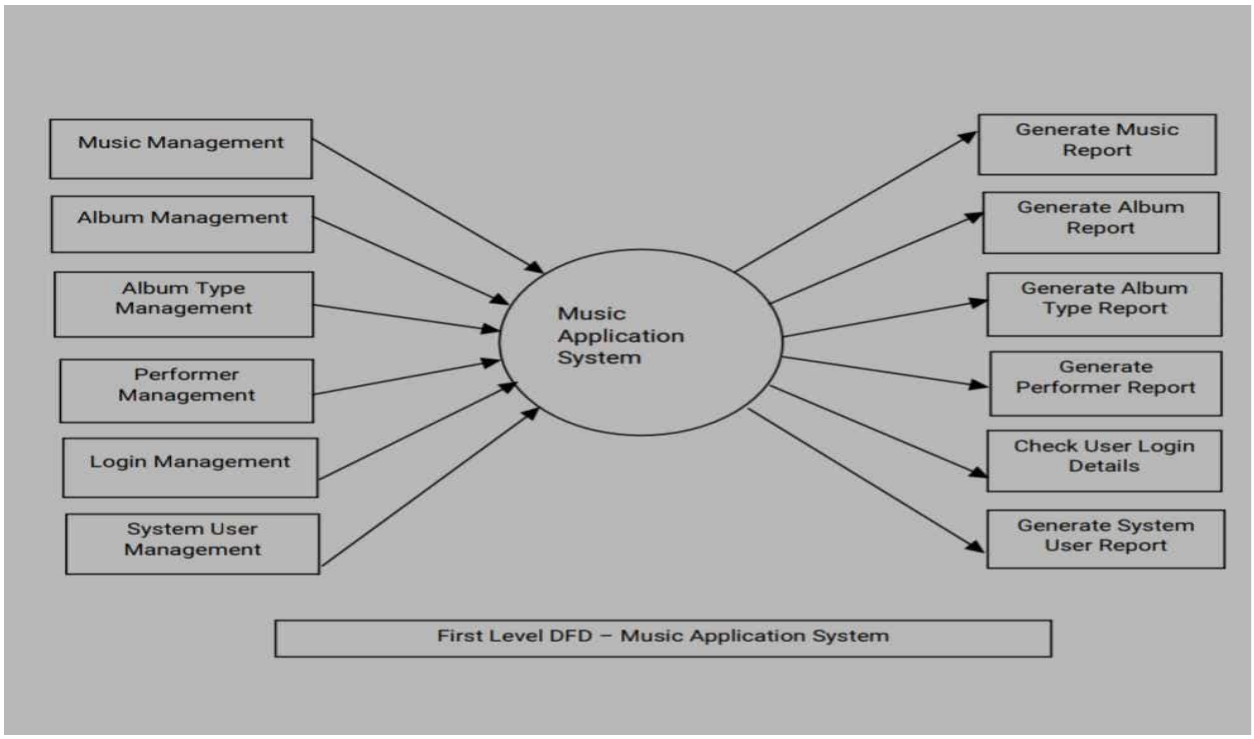

Figure 3.6 Data Flow Diagram (Level 1)

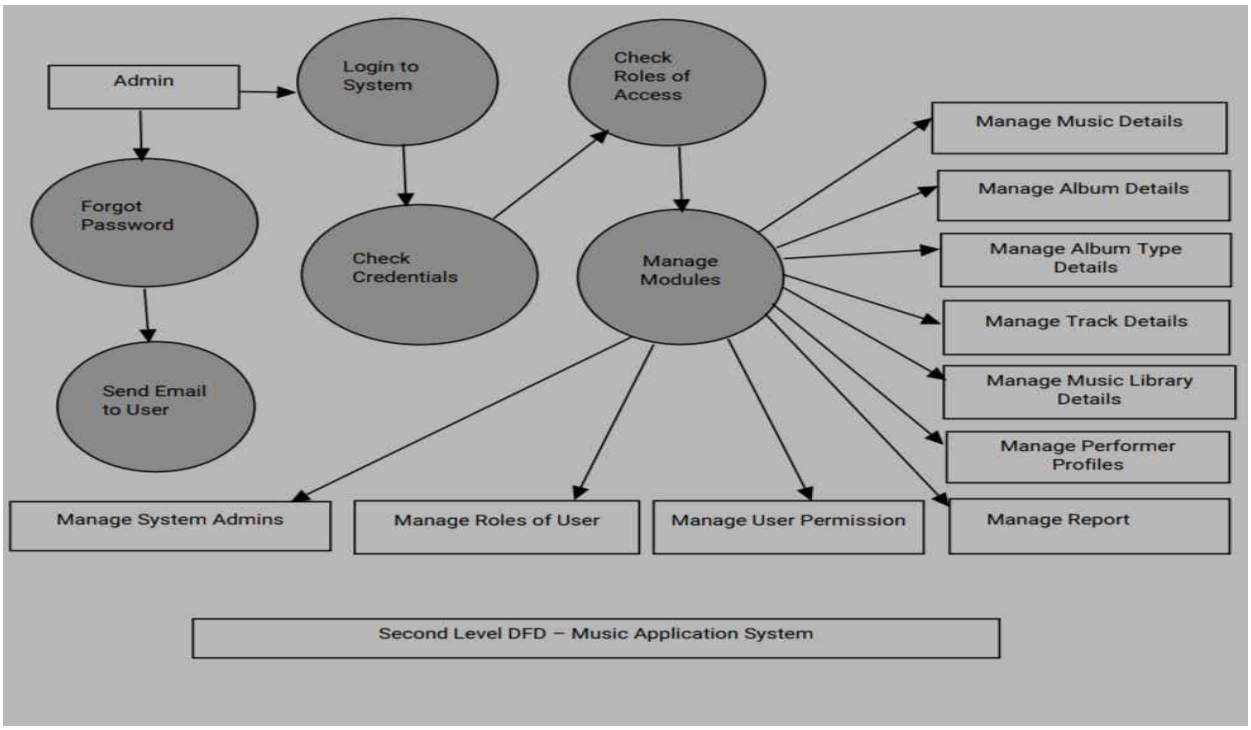

Figure 3.7 Data Flow Diagram (Level 2)

USECASE DIAGRAM

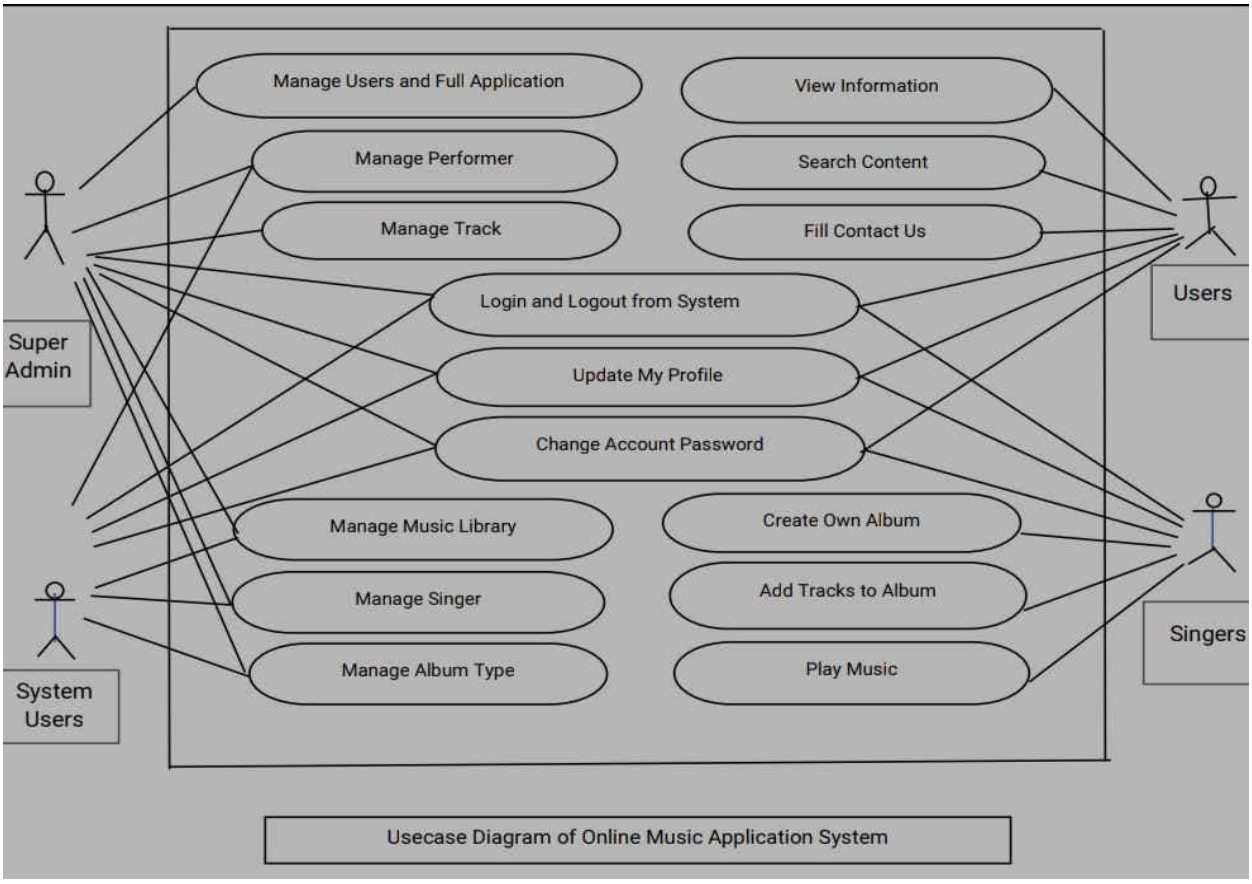

Figure 3.8 Usecase Diagram

MERITS OF MUSIC APPLICATION SYSTEM

• 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

CHAPTER 4

CONCLUSION

This application was designed by keeping in mind the requirements of a user to have in an efficient music player. We have tried to keep the user interface clean, and minimal, with support for all kinds of devices and the screen sizes available in the market. It will help the users to flexibly access and listens to the songs of their choice. So, this application is user friendly application because the features which are used in this application are easy to access and understand. In this application Graphical User Interface is used to make this application more attractive. This application can be used without having an access of internet. This application also provides a facility to play, pause, restart and stop the song. In this application users will use the offline option to stream the album of their choice and listen without using internet. This music player will have all the features found in any typical music player. The goal of this project is to build a website that mimics the appearances and also some of the basic functionalities of a popular music-streaming platform.