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MUSIC STREAMING ANDROID APPLICATION

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ABSTRACT

This app will be used by people to listen to their favorite music. Music is something that has been with a person even at his happiest and at the same time at his loneliest or worst times. There are so many different types of music as per the mood of any common person and you can reach them at one click. Listening to music can decrease levels of the stress hormone, cortisol. Your brain releases a 'happy hormone', dopamine when you listen to music. This app will include many premium features such as Login/Sign-Up, online streaming, lyrics, recommendation system and search with speech.

Keywords: Music, Listen, Favorite, Person.

I. INTRODUCTION

Our project title is Music Stream application. This app will be used by people to listen to their favorite music. This app will let you listen to music without needing to download it on your device and it will provide you with many premium features such as the ability to the lyrics of the sing you are listening to search the names of any song just by saying it's name. The app will let you enjoy your music without any interruptive ads which tend to ruin the experience of listening music, you will also be able to discover many new songs with the recommendation system in this app, it will show you songs from your favorite artists and genres.

II. LITERATURE SURVEY

Our group did extensive survey on the current offerings in the music streaming space, we found out that the problem is that everyone is not able to purchase the monthly or yearly subscriptions to enjoy hassle free music without any disturbance like ads and stuff that keeps popping up on the screen. So, this app will provide all the users premium features totally for free. The major problem we figured out was there are very less applications that have premium features for free. So, if a person needs listen songs without any obstructions by AD's then this app will help them to a great extent. Some people cannot afford purchasing the subscription. Many people take annual subscriptions of such applications but they don't get satisfied with the services provided to them. Also, students and teenagers who are the majority of population listening to songs can't afford such costly subscriptions.

Several experts have an optimistic view on streaming and what it is doing, and could eventually do, for the music industry. A study done on music piracy in Norway by Music Business Worldwide showed that piracy rates in Norway "have fallen to just four percent for people under thirty" (Hruska). Ryan Faughnder, a writer for the LA Times, went as far as saying that "The rise of convenient, licensed streaming has helped cut U.S. file-sharing rates in half in the last decade" (Faughnder). However, since piracy sites are illegal and so far-reaching, it is often hard to collect hard facts and the numbers may be unreliable. [2]

Streaming sites offer a quicker, safer way to obtain songs. Finally, for those who said they would be willing to pay for a monthly subscription, the flat rate would allow freedom to sample songs and artists without paying for them individually. Although the free, ad-supported consumption model of music streaming received higher approval, the researchers concluded that "MaaS is a viable alternative to illegal music consumption" (Benlian). [2]

III. SYSTEM IMPLEMENTATION

A. EXPERIMENTAL SETUP

For this project, KOTLIN and XML languages are used. For the database, we have used Firebase. Short descriptions of the platforms required are mentioned below:

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- **Kotlin**: Kotlin is a general-purpose, free, open-source, statically typed "pragmatic" programming language initially designed for the JVM (Java Virtual Machine) and Android that combines object-oriented and functional programming features. It is focused on interoperability, safety, clarity, and tooling support. Kotlin originated at JetBrains, the company behind IntelliJ IDEA, in 2010, and has been open source since 2012.
- **XML:** Android layouts are written in eXtensible Markup Language, also known as XML. Much like HTML (or HyperText Markup Language), XML is also a markup language. It was created as a standard way to encode data in internet-based applications. However, unlike HTML, XML is case-sensitive, requires each tag to be closed properly, and preserves whitespace.
- **Firebase:** Firebase is a Google-backed application development software that enables developers to develop iOS, Android and Web apps. Firebase provides tools for tracking analytics, reporting and fixing app crashes, creating marketing and product experiment.
- **Figma:** Figma is a vector graphics editor and prototyping tool which is primarily web-based, with additional offline features enabled by desktop applications for macOS and Windows**.** It is a powerful design tool that helps you to create anything: websites, applications, logos, and much more

Sr. No.	Hardware and Software Requirements	
	Name of Equipment	**Specification**
1	Computer System	8GB RAM or more, 8GB of available disk space
2	Windows	Windows 8 or higher
3	Android Studio	Version 4.1 or above
4	Java Toolkit	JDK 1.8 or above
5	Android Emulator	Android 6.0 or above

B. WHAT IS MUSIC STREAMING APPLICATION?

In the past, if you wanted to listen to music or any other type of audio, you downloaded an audio file in a format such as MP3, WMA, AAC, OGG, or FLAC. However, when you use a streaming delivery method, you don't have to download a file. You can start listening through a device or smart speakers immediately. This streaming app differs from downloads in that no copy of the music is saved to your hard drive. If you want to hear it again, you can easily do so. The application's UI will be very simple and seamless so that the users can listen to their favourite music in no time, they will be able to see all the songs sorted as per various genres and recommendations. This app provides many premium features such login/sign-up, online streaming, lyrics, recommendation system and search with speech.

C. BASIC FLOW OF ALGORITHM

Project Architectural Algorithm:

Step1: After signing into the application, the user will be displayed with 4 sections of songs:-

- Song Recommendation
- Recently Played
- Most Listened
- A Popular Genre

Step2: The song recommendation section will show you other songs from artists you have listened and songs from the genres you have listened .

Step3: The recently played section will show you the songs you were listening to the last time you were using the application.

Step4: The most listened section will show you the songs you frequently play on the application.

Step5: The popular genre will display a random genre of songs so that you can discover new music.

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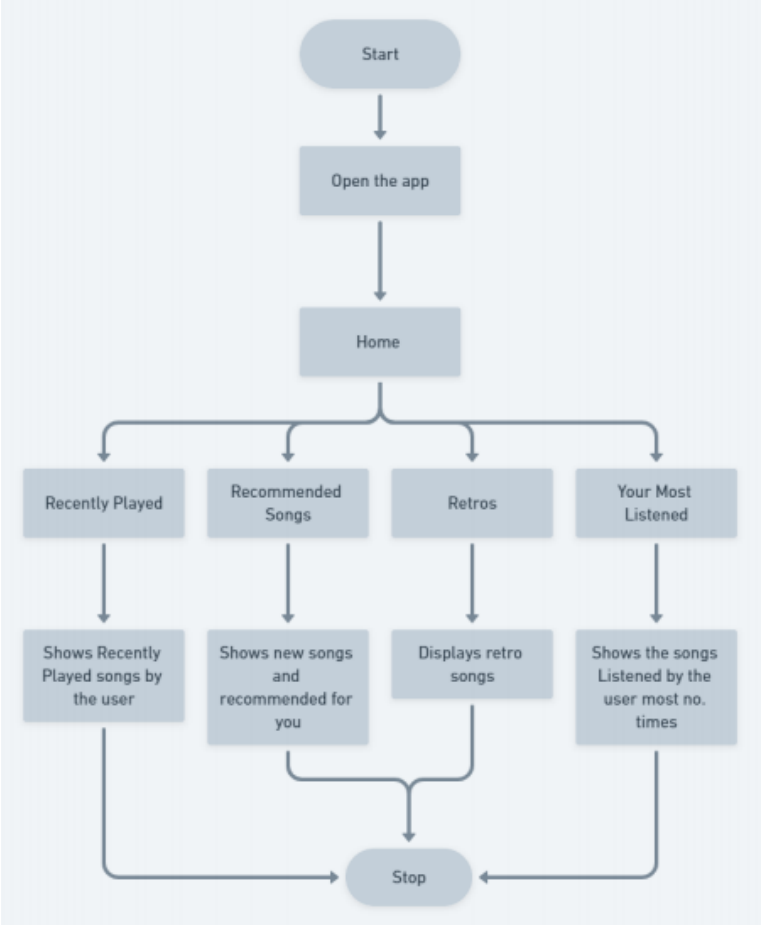

Figure 1: Project Architectural Flow

IV. MODELLING AND ANALYSIS

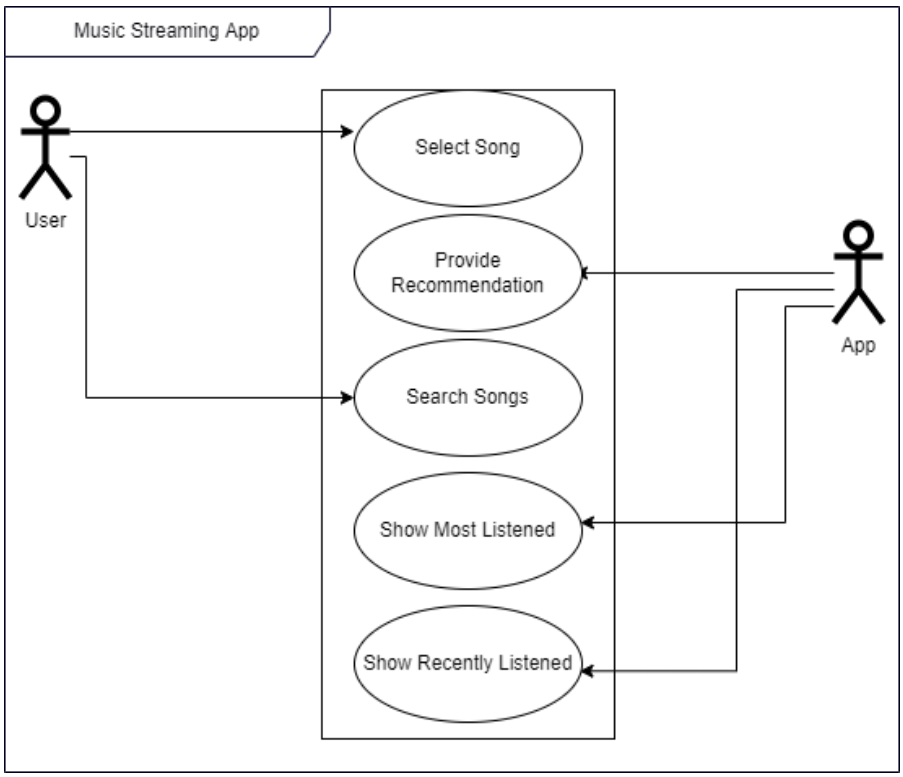

Figure 2: Use Case Diagram

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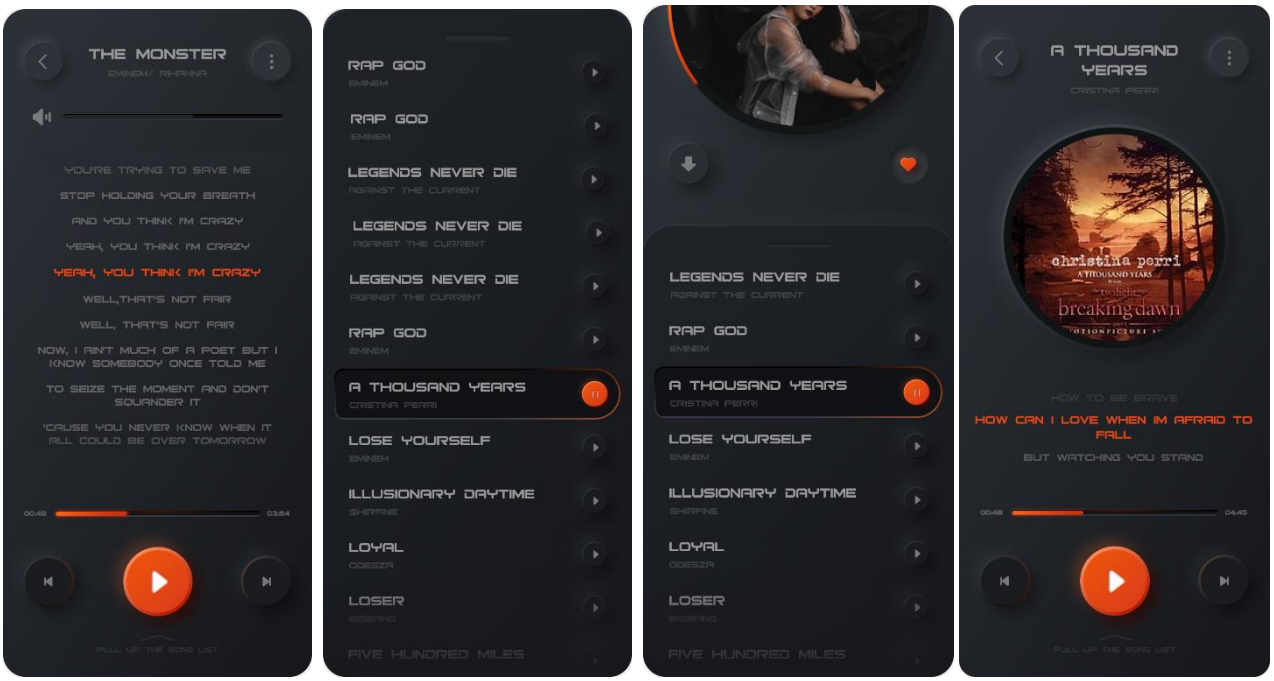
- **User Interface Diagram**



V. CONCLUSION

Music streaming apps have been a game changer when in comes to listening to music as now you don't need to own the physical copy or a digital of the songs you want to listen to as you have get to have access to hundreds of songs from various artists across all languages in the palm of your hand.

VI. REFERENCES

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