**INTRODUCTION TO SOFTWARE ENGINEER**

**Group 7**

**Project Proposal**

1. **Team members:**

| **Student ID** | **Full Name** | **Assigned Role** |
| --- | --- | --- |
| 22127262 | Đỗ Lương Nhật Minh | Project Manager |
| 22127277 | Võ Thị Hồng Minh | Business Analyst |
| 22127314 | Nguyễn Hoàng Như | Frontend Designer - Developer |
| 22127301 | Nguyễn Gia Nguyễn | Backed Designer - Developer |
| 22127445 | Nguyễn Lâm Nhã Uyên | Tester |

(Some Tasks might include many members to build, though still follow the instruction of the one who have the most relevant role in the team (comparing to the task type))

1. **Introduction:**

* Project Name: Music Streaming Website
* Our web-based music streaming app is designed to allow free-users to freely upload and share their music with other users, all of them are non-profit. The platform includes essential features such as liking, sharing, creating playlists, seeking, and skipping tracks. Users can easily search for music and receive personalized recommendations through an advanced search engine and recommendation system. Additionally, user profiles provide detailed information and interaction capabilities. By integrating AI, we want to improve music suggestions systems then also enhance the overall user experience.
* Lack of non-profit sharing music platforms for new artists and users is the main reason why we decided to choose this topic. Where many other streaming app like Spotify, Youtube Music, Soundcloud,etc, all of them have the same kind of purchasing plan for artist account in order to spread their music to audience more easily (or seminar strategy), they also set to many strict rules about copyright and profit, especially with new indie-artist or with remix products. With our apps, sharing is the key feature, where they can upload any audio products if they want. None of them will create income for authors, but maybe, their talents will be seen by many more people,creating a bigger opportunity for them to follow their dreams.

1. **Environment:**

Web:

+Front end: html + css, framework:**Bootstrap**

+Back end: javascript + nodejs.

+Database: MongoDB

1. **Target users:**

* New/Indie artists want to share their songs.
* People who are willing to share and hoping to meet others with the same music-taste.
* Trackers from labels care for finding new talents.
* Music enjoyers who want to enlarge their playlist.

1. **Key features:**

**a) Type of users:**

* Guest: These users will access and explore the website without logging in. They can listen to music (but a limited number of songs), see the information of products and artists but there’s some limitation: they can’t create their own music list or follow their favorite artist. Therefore, they cannot receive notifications when their favorite artists publish some products
* Logged-in users: These users will have access to additional features such as listening to unlimited numbers of music, creating their own lists,etc.
* Artist: Beside some additional features, users can become an artist on our website by updating their info and start to update products.
* Admin: They will have special privileges such as viewing user information, disable users accounts, provide verified badges to artists, etc…

**b) Key features:**

-Log In and Sign Up (via email, facebook, sms, etc.).

***-For guests:***

+Listen to music: Users can stream music from a vast library. To manage usage, the system may impose a daily limit on the number of songs guests can listen to.

+Recommend trending playlists: The platform automatically suggests the most popular, trending playlists and the latest hits.

+Search and filter songs by theme: Users can search and filter songs based on music genres (pop, rock, rap, etc.), artists, or playlists for activities like workouts or relaxation

+Search songs: Users can quickly find their favorite songs by typing the song title or artist name into the search bar

+View artist information: Users can access detailed artist profiles, including personal information, career highlights, and their popular songs. Additionally, users can browse through albums, view album details, and explore related tracks.

***-For logged-in users:***

+Unlimited music streaming: Users can listen to as many songs as they want without any restrictions.

+Create personal playlists: Users can create their own playlists, deleting/adding items from lists.

+Follow favorite artists: Users can follow their favorite artists to stay updated on their latest activities.

+Receive notifications for new releases from favorite artists: Users will be notified whenever their followed artists release new songs/albums

+Share music on personal profiles: Users can share their favorite songs or playlists on their personal profiles on social platforms (Facebook, Instagram,...).

+Personalized music recommendations: The platform suggests songs based on the user’s listening history and personal preferences.

+Download music for offline listening: Users can download songs to listen to them offline, even without an internet connection.

***-For artists:***

+Receive a verified badge: Artists can receive a verified blue checkmark when their total followers or listeners reaches a certain number.

+Upload songs and albums: Artists can upload their music, including individual tracks and full albums.

+Data analytics: Artists can view statistics such as the number of followers or plays, downloads of their songs.

+Monetize music: Artists can track the revenue earned from music plays, streams, and downloads. They can also connect with payment systems to withdraw their earnings.

+Advertising and promotions (Optional): Artists can create ads or promotions for their songs or albums to reach a larger audience.

***-For admin:***

+User management: Admins can view or disable users accounts. They can also monitor users behavior to detect any violations.

+Content moderation: Admins are responsible for reviewing and moderating any plagiarized or inappropriate content that violates ethical standards.

+Grant verified badges to artists: Admins have the authority to verify artists by giving them the blue checkmark (and can also take back if the artist violates any rules).

***-AI Implementation:***

+Using AI for Plagiarism Detection in Music