

# **1. Introduction**

## **1.1. Problem Statement**

Every individual possesses unique musical tastes, and there are also people with the ability to create their own renditions of songs. Due to the rapid development of the music industry, the demand for music has risen drastically, both in the listening and composing aspects. To meet those demands, our group has developed **Canary**, a product, a small community that fulfills everyone.

## **1.2. Solution Proposal**

Our online music community website (project) will be named Canary Music Streaming Service. Canary stands for canary bird, which is known for its beautiful voice. Therefore, it fits perfectly with our purposes. As a guest, you can use this website to listen, search, share songs, and view billboards. Registered members have all guests's privileges. Especially, members can upload or remove their own songs (covers or composed ones), create their personal playlist, and use other services. The admin role allows database management, tracking data, and resolving requests.

# **2. Target user and environments**

## **2.1. Users**

Being a music streaming service, the website application aims to provide a seamless experience listening to and discovering songs and albums. It will be a small community where everyone can share their own version of songs. Consequently, three different user types are being considered:

- **Guests:** Users who do not need to use their account to log in. They will have limited features alongside listening to music.
- **Members:** Account registered users. They now can create playlists, leave ratings, upload songs, and much more.

- **Admins:** Employees in charge of resolving requests related to song uploads and reports. They also have the highest privilege to manage the database.

## 2.2. Environments

The application will be browser-based and can be accessed via the Internet as a website that can be shared across platforms.

## 3. Key features

- Sign-Up / Sign-In
  - **Sign-Up:** Providing the authentication information, consisting of email and password, alongside the unique display name to be recognizable to have the account stored in the database.
  - **Sign-In:** Verify account by entering the email and password to be logged in.
  - This account will record the list of songs that the user has uploaded and the playlists they have created.
- Search for songs / albums
  - Songs and albums can be searched by their name or the artist's name.
  - The exploitation can be filtered through some of the attributes, such as genres, the release date,...
- Media player
  - Play / Pause songs.
  - Play in loop/shuffle songs.
- Share songs through links.
- Billboards
  - The top songs that currently hit based on their rating and attention.
  - The recent release of songs and albums.
- Leave reactions
- Upload songs
  - Users can upload their own version of the song, in which it needs to satisfy the policy and is not fringe to other users.

- The song will need to be verified by admins before being released publicly.
- Create personal playlists
  - Users can gather different songs to put up their one and only playlist that fits them the best.
- Star songs
  - Mark their favorite songs for ease of access.
- Report songs
  - Users can report other songs if they think it is copyright infringement.
  - These reports will be viewed and resolved by admins.
- Songs removal
  - The users who own that song can remove it from the public.
- Requests resolving
  - Songs before release will be considered whether they violate the policies.
  - Reported songs will also be reconsidered before taking action.
- Data tracking
  - Can track the behaviors and the traffic of the website.
  - The number of top searches and top listened songs of the week.
- Manage database
  - Has access to the full database of which accounts and songs are stored.

## **4. Us vs Competitors**

- Community-driven: music from anyone, for everyone.
- Free of subscription.
- Open-source, just so you know we don't collect your personal data.

Capabilities	Guests	Members	Admins
<i>Sign-Up / Sign-In</i>	✓	✓	✓
<i>Search for songs / albums</i>	✓	✓	✓
<i>Media player</i>	✓	✓	✓
<i>Share songs</i>	✓	✓	✓
<i>Billboards</i>	✓	✓	✓
<i>Leave reactions</i>	✗	✓	✓
<i>Upload songs</i>	✗	✓	✓
<i>Create personal playlists</i>	✗	✓	✓
<i>Star songs</i>	✗	✓	✓
<i>Report songs</i>	✗	✓	✓
<i>Songs removal</i>	✗	✓	✓
<i>Requests resolving</i>	✗	✗	✓
<i>Data tracking</i>	✗	✗	✓
<i>Manage the database</i>	✗	✗	✓