
Group 05 - AlgoRhythm

CANARY MUSIC STREAMING SERVICE
Vision Document

Version 1.2

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Vision Document	Date: 08/12/2024

Revision History

Date	Version	Description	Author
05/11/2024	1.0	Initializing, proposing, and stating the project detail information.	Trần Anh Minh
14/11/2024	1.1	Minor changes in Product Feature and adding bonuses Non-functional requirements.	Trần Anh Minh
10/12/2024	1.3	Small update all the diagram	Trần Anh Minh

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Vision (Small Project)

1. Introduction

The purpose of this document is to collect, analyze, and define the needs and features of the CANARY application. The website allows users to share their covered song publicly and listen to other versions. It's more like a small music community than just an ordinary streaming service.

Reference:

- Research:
 - Full of tastes in music covering. ([Đủ 'vi' cover trong nhạc trẻ](#))
 - Covered songs are more popular than the original. ([Hiện tượng cover được yêu thích hơn cả bản gốc](#))
- Referred website: [SoundCloud](#), [YouTube Music](#), [Funkwhale](#),...

2. Positioning

2.1 Problem Statement

The problem of	Discovering different version of songs Share songs publicly
affects	Music listeners Artists
the impact of which is	Cover songs' artists want to share their version with the public without copyrights. Listeners want to enjoy other versions of certain hit songs but are unable to find what they desire.
a successful solution would be (giải pháp thành công sẽ là)	Listeners can enjoy songs with better voices and lyrics than the original version. Artists can freely share the songs and get socially accepted.

2.2 Product Position Statement

For	Listeners Cover Musicians
Who	are interested in finding new songs. are want to enjoy different taste materials. are want to share their songs with the community.
The Canary Music Streaming Service	Is website application
That	allows everyone to spread inspiration to the community through music and can enjoy every moment.
Unlike	Spotify, YouTube, Zing MP3
Our product	can bring the best moment enjoying music and a small community where anyone can share their talent in singing, covering, or composing new notes.

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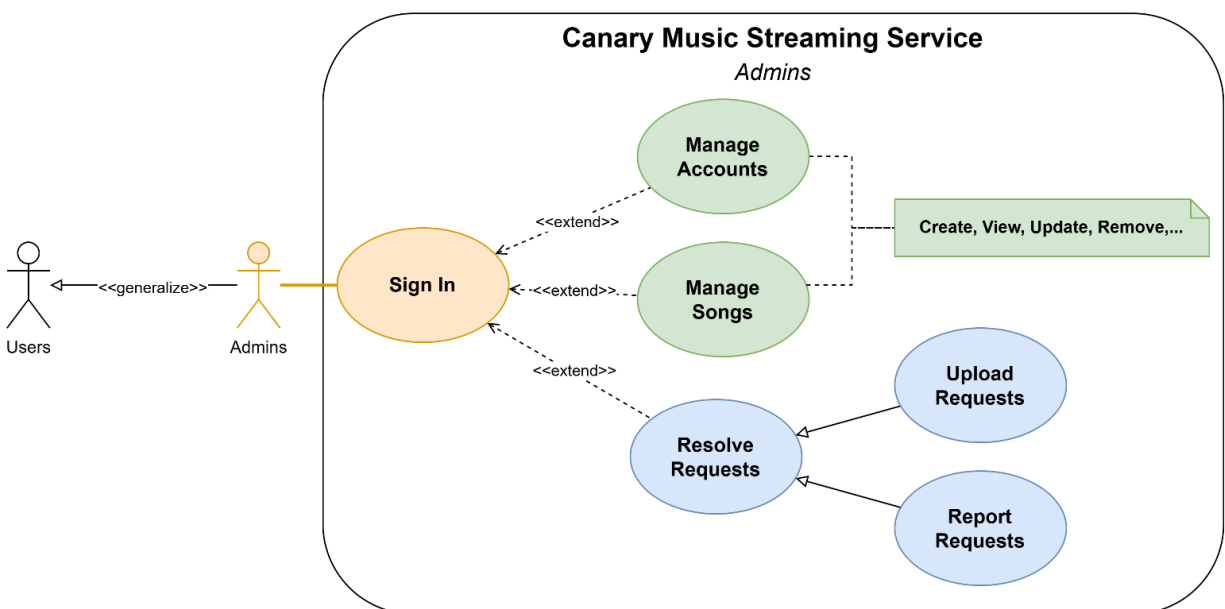
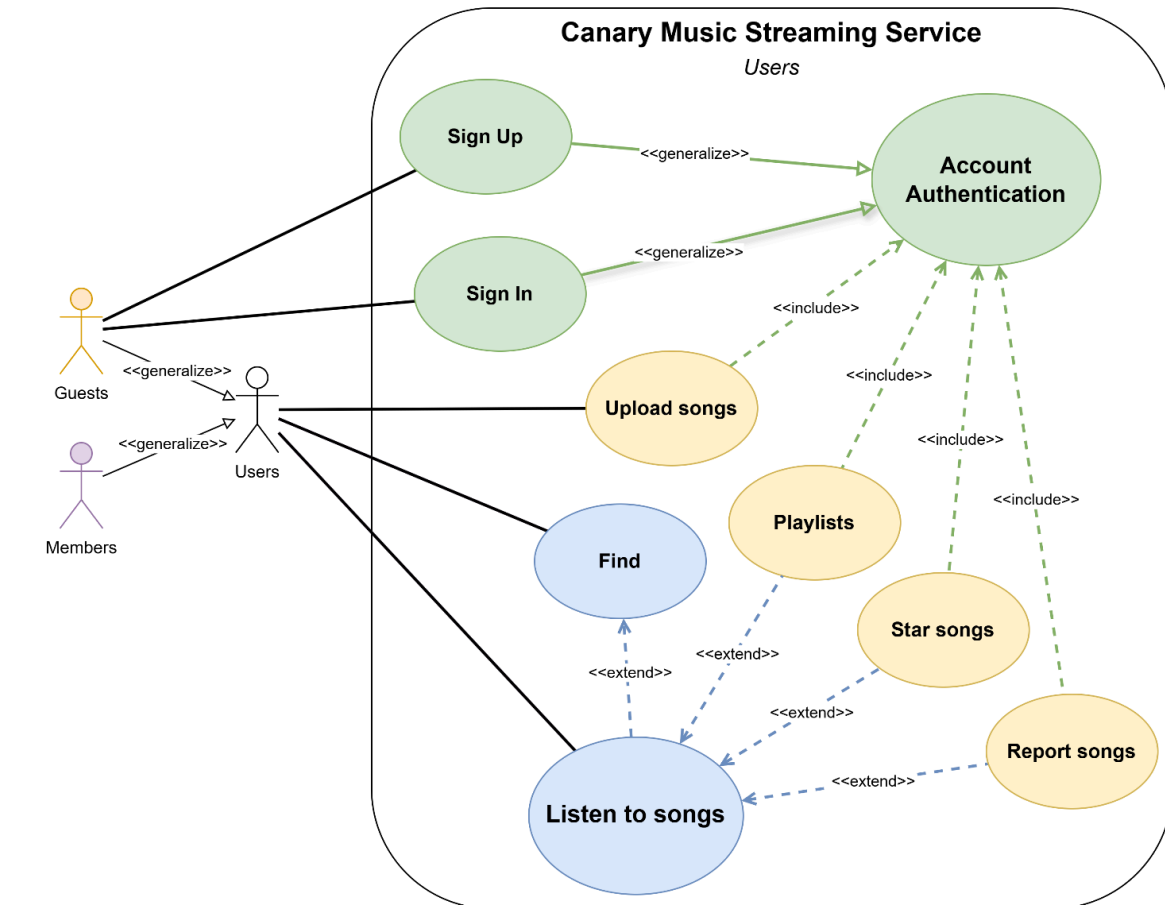
3. User Descriptions

3.1 User Profiles

Name	Description	Responsibility
<i>Normal users</i>	Who use the website to listen to music and share their products widely.	<ul style="list-style-type: none"> • Search for songs and albums. • Enjoy music. • Create their favorite playlists. • Upload songs to share with the community. • Report songs that violate the policy.
<i>Admins</i>	Who manage the whole streaming service.	<ul style="list-style-type: none"> • Add, remove songs, or its metadata. • Review and resolve the reports and grant permission to upload the songs. • Tracking the data on the website traffic to enhance the system.

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3.2 User Task and Environment



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User Environment:

- **Accessible:** The website is accessible through any browser via internet connection, featuring a user-friendly interface to accommodate all users.
- **Heavy usage during peak hours:** During specific hours, such as mornings and evenings when users are most likely relaxing after work, the platform must handle the traffic without compromising performance and user experience.
- **Long playback sessions:** Some users may keep the platform running for extended periods of time (several hours); the platform needs to maintain the stability over long sessions.

3.3 Alternatives and Competition

There are quite a few alternatives to our application that can be found:

Services	Noticeable Features	Deal breakers
Spotify	<ul style="list-style-type: none"> • Abundant library of music. • Affordable subscriptions. • User-friendly interface. • On-point music-suggesting algorithms. 	<ul style="list-style-type: none"> • Too many feature limitations for non-subscription users (no shuffle, play songs by choice, etc.). • Max bitrate of 320 kbps.
SoundCloud	<ul style="list-style-type: none"> • Community-driven music distribution. • Freedom of music publishing. • Social features (like, follow, comment, etc.) 	<ul style="list-style-type: none"> • Possible inconsistent audio quality (due to original uploader). • User interface is not as visually appealing as other competitors.
Deezer	<ul style="list-style-type: none"> • Abundant library of music. • Hi-Fi sound quality. • User-friendly interface • Niche music recommendations. 	<ul style="list-style-type: none"> • Costly premium subscriptions. • Geographical location is restricted for many regions.
Youtube Music	<ul style="list-style-type: none"> • Vast music library. • Seamless integration with Youtube (easy to access YouTube videos & other content). 	<ul style="list-style-type: none"> • Relentless ads on premium subscription. • Biased music recommendation system (often favors popular tracks and trending content). • The service tends to recommend video versions of songs

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4. Product Features

Below are the main features that our application will deliver. Notice that the features can be changed, added, or deleted as the development process goes on.

GUEST:

No.	Feature	Description	Priority
1	Sign Up	User can register an account using email. <ul style="list-style-type: none"> By creating an account, the user can use many more features. 	High
2	Sign In	User can sign-in by entering the created account. <ul style="list-style-type: none"> Logging back into the account, users can retrieve their playlists and other starred songs. 	High
3	Search and filter	The user can search for songs and other registered users with high accuracy. Songs can also be filtered through some defined rules, such as the genres, the release year, and the mood of the songs, etc. <ul style="list-style-type: none"> User can find the song to listen to by entering its name or its artist's name. Moreover, songs can also be looked up by sorting and filtering through tags. 	High
4	Music media player	Users can play/pause songs and select songs to be played in loop or shuffled. <ul style="list-style-type: none"> This media player allows users to seamlessly control the song they are listening to and which will show up next. 	Very High
5	Share songs	Via a link that brings directly to the song page.	Low
6	Billboards	Lists of the recent release or top listen-to songs. <ul style="list-style-type: none"> The playlists that are currently hit. The top songs that are rated based on the streaming count. 	Medium

MEMBER:

No.	Feature	Description	Priority
	<i>Includes all previous features</i>		
7	Leave reactions	User can leave reactions on how the songs affected them.	Low

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		<ul style="list-style-type: none"> By leaving a reaction, other users will have a general view of the songs before and while listening to them. 	
8	Create playlists	<p>User can group up songs that fit their certain vibe and create the best-fit playlist ever.</p> <ul style="list-style-type: none"> Their created playlists can be accessed via the Library page and will help users to have a continuous listening mood. 	Medium
9	Upload songs	<p>User can share their own “songs” with the community as long as it does not violate the term of usage.</p> <ul style="list-style-type: none"> By uploading the songs to the service, your songs will reach other people, showing how talented you are. 	High
10	Star songs	<p>Songs can be marked as favorites and can be easily accessed through "Library."</p>	Medium
11	Send report	<p>User can send “reports” of the songs that they think violate the policy.</p> <ul style="list-style-type: none"> User will need to provide a reason when sending the report for admin to confirm what is wrong. 	Medium
12	Song removal	<p>As the owner of the songs, the user can remove it.</p> <ul style="list-style-type: none"> Whether users, as the owner of the song, do not want the song to appear across the community anymore, they can choose to remove it. 	Medium

ADMIN:

No.	Feature	Description	Priority
	<i>Includes all previous features</i>		
13	Requests resolve	<p>The admin needs to manage all requests to upload new songs and songs’ reports from the user to ensure it does not violate the term of usage.</p> <ul style="list-style-type: none"> Considering the reports sent by users, administrators need to take many different measurements reviewing the song before removing it as it violates the rules. The same goes for upload requests; to negate the affect of infringement, songs need to be verified carefully before 	High

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No.	Feature	Description	Priority
		accepted.	
14	Data tracking	Admin can view the website traffic along the number of turns the music is streamed.	High
15	Management	Admins are provided with an interface to manage information related to songs and accounts.	High

5. Non-Functional Requirements

Below are the non-functional requirements

No.	Requirements	Description
1	Compatibility	Able to run on various different browsers such as Chrome, Edge, FireFox,...
2	Performance	Able to handle 1000 accesses per second with less than 4 second response time.
3	Security	User data is protected under any circumstances.
4	Maintainability	The application will be under maintenance every quarter of the year for fixing bugs and updating new features. (the system will be taken down for about 3-4 hours.)
5	Usability	User will be able to navigate around smoothly after a few clicks.