

PROJECT REPORT

IN

"COMPUTER SCIENCE ENGINEERING"

ON

"RESOUND MUSIC PLAYER"

SUBMITTED IN PARTIAL FULFILLMENT OF THE DEGREE

OF

BE (CSE)

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DECLARATION

We hereby declare that the project work titled, "Resound | An Interactive Music Sharing and Streaming Platform" submitted as part of Bachelor's degree in CSE, at Chitkara University, Himachal Pradesh, is an authentic record of our own work carried out under the supervision of Dr. Abhishek Thakur.

Signature(s):

ACKNOWLEDGEMENT

We would like to express our deepest appreciation to our project supervisor, Dr. Abhishek Thakur, for his guidance, support, and expertise throughout the development of our music player. We are grateful for his invaluable insights and feedback that helped us refine our ideas and make critical decisions.

We would also like to thank our team members, Madhav Goyal, Akhilesh Thakur, Akshita and Anjori, for their hard work and dedication in bringing this project to fruition. Each team member brought unique skills and perspectives to the project, and their collaboration was essential to the success of the music player.

We extend our gratitude to the outside consultants who generously shared their expertise with us. Their insights and feedback helped us refine the functionality and usability of our music player. We would like to express our gratitude towards our parents member of CSE Department for their kind co-operation and encouragement which helps us in the completion of the project.

Lastly, we thank all of the users who provided valuable feedback that helped us improve the music player. We are proud of what we have accomplished and we hope that our music player will bring joy and entertainment to music lovers everywhere.

Thank you all for being a part of this journey and for making this music player project a success.

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PROJECT TITLE

Resound | An Interactive Music Sharing and Streaming Platform

INTRODUCTION

Welcome to the world of Music! Music is an integral part of our lives and has the power to evoke emotions, memories, and moods. Whether you're an avid music lover or just enjoy listening to your favourite tracks, our music player has everything you need to enhance your listening experience. In today's digital age, music players have become an essential tool for people to listen to their favourite music anytime, anywhere. The objective of this project is to design and develop a music player that offers the user with an easy-to-use interface. So, sit back, relax, and immerse yourself in the world of music with our music player.

In this report, we will discuss the development of our music player, including the design, functionality, and features. We will also highlight the challenges we faced and the solutions we implemented. Our goal is to provide a comprehensive overview of our project and demonstrate how our music player can meet the needs of today's music lovers.

Project Category:

In my view this project would fall under the category of web development, with a focus on front-end development. The front-end development aspect of the project would involve designing and developing the user interface of the website, including creating a navigation menu, designing the music player interface.

For the music playback functionality, the project could involve using an open-source music player library or creating a custom music player using HTML5 audio tag and JavaScript. The website could also include features such as searching for songs and displaying song lyrics. In this project, we need to design the user interface and user experience of the application, including features such as playlists, music library management, and playback controls.

ABSTRACT

The aim of this project is to develop a music player website that provides users with a comprehensive and user-friendly platform to listen to their favourite music. The website will be designed to allow users to access a vast collection of songs. This project aims to design and develop a music player that offers a user-friendly interface. Our approach involves integrating cutting-edge audio technology with intuitive design principles to create a music player that meets the needs of music lovers.

The project provides seamless integration with the music player, allowing users to control their music playback and access their music library on the go. Our project has the potential to improve the music listening experience for people around the world and set a new standard for music player design and functionality. To enhance the user experience, the website will include a search function that enables users to search for songs based on artists, genres, and keywords. The website will also feature a song recommendation system that suggests new songs based on the user's listening history.

The outcome of the project will be a functional music player website that provides an enjoyable and immersive music listening experience for users. The website will be a valuable resource for music lovers, allowing them to discover new music.

WORK DONE

Overview:

User Interface Design: This involves designing an intuitive and user-friendly interface for the music player that allows users to easily browse, search, and play their music.

Audio Playback Functionality: This involves implementing music playback controls, volume adjustments, and playlist management using an open-source music player library or custom music player

Music Library Management: This involves managing the user's music library, including adding/removing music, organizing music by artist/album/genre.

Audio Equalization: This involves adding equalization controls to the music player, which allows users to adjust the frequency response of the audio output to suit their preferences.

Front-end Development: This involves designing and developing the user interface and user experience of the website using HTML, CSS, and JavaScript. For a music player website, front-end development includes designing the music player interface, playlist management, and search functionality.

Testing and Optimization: This involves testing the website's functionality, performance, and security to ensure a seamless user experience. It also includes optimizing the website's design and functionality.

Purpose:

- 1. To allow users to play and listen to music.
- 2. Allow users to listen to music whenever and wherever they want.
- 3. To customize their listening experience to suit their preferences.
- 4. Easy access to a wide variety of music: A music player website provides users with easy access to a vast collection of songs, including popular music and niche genres.
- 5. Gives Convenience to the user.
- 6. User-friendly platform to listen to their favourite music and discover new songs.

Overall Description:

1. Product Perspective:

This software system is user friendly. The product has various features, such as the ability to manage a music library and adjust audio settings.

Some key aspects of the product perspective include:

Market analysis: Understanding the market for online music streaming services, including market size, competition, and user demographics.

Product features: Identifying the key features that make the music player website unique, such as personalized playlists, social sharing, and music recommendation algorithms.

User experience: Focusing on creating a seamless and enjoyable user experience that is easy to navigate and use.

Scalability: Ensuring that the website is scalable to handle increasing user traffic and a growing music library.

Business model: Identifying the revenue streams for the music player website, such as advertising, subscription fees, or a combination of both.

2. Product Function:

The product function of a music player is to allow users to play and listen to music. The core function of a music player is to read audio files, decode them, and play them.

Music library: The website should provide access to a vast collection of songs that users can search and browse.

Playlists: Users should be able to create customized playlists with their favourite songs and organize them in a way that makes sense to them.

Playback controls: The website should provide playback controls such as play, pause, skip, and volume control.

User accounts: Users should be able to create accounts to save their preferences, playlists, and listening history.

3. Operating Environment:

This project works on the following:

1. Operating System: Windows 7 and higher.

2. Text-Editor: VS Code.

3. Technologies used: HTML, CSS, JavaScript...

4. Design and Implementation Constraints:

- 1. Platform Compatibility
- 2. Audio Format Support
- 3. Resource Limitations
- 4. Licensing and copyright
- 5. Storage Capacity

External Interface Requirements:

1. User Interface:

- It will be easy to use and user friendly.
- It has standard playback controls.
- User-friendly platform to listen to their favourite music and discover new songs.
- To customize their listening experience to suit their preferences.
- Easy access to a wide variety of music: A music player website provides users with easy access to a vast collection of songs, including popular music and niche genres.

2. Software Interface:

This whole project works on browsers like Chrome, Firefox etc. and is based on the technologies like HTML, CSS and JavaScript. It has the following features:

• Navigation: The website should have a clear and easy-to-use navigation system that allows users to access different functions and features.

- Search: The website should have a search bar that allows users to search for songs, artists, albums, and playlists.
- Playlists: Users should be able to manage playlists easily.
- Playback controls: The website should provide clear and accessible playback controls, such as play, pause, skip, and volume control.
- User accounts: Users should be able to create and manage their accounts easily, with the ability to view their listening history, manage their preferences.
- Design: The website should have an attractive and visually appealing design that is consistent across all pages and functions.

Other Non-Functional Requirements:

1. Performance Requirements

- It gives quick responses.
- It is time saving.
- It is easily accessible to the user.
- It has Log In/Log Out option.

2. Portability Requirements

Cross-browser compatibility: The website should be designed to work seamlessly on different web browsers, including Chrome, Firefox, Safari, and Edge.

User accounts: Users should be able to create accounts to save their preferences, playlists, and listening history, allowing them to access their music from any device.

3. Availability Requirements

This music player is up and running whenever needed. The users can access the website at all times, without any significant interruptions or downtime. By meeting these requirements, a music player website can provide a reliable and trustworthy user experience, leading to increased engagement and user retention.

4. Scalability Requirements

Scalability requirements refer to the ability of a music player website to handle increasing user traffic, a growing music library, and new features. A music player website should be scalable to ensure that it can meet the demands of its users, without sacrificing performance or user experience. It meets the needs for which it was build.

5. Security Requirements

This system provides basic security authentication. Security requirements for a music player website are critical to ensure that user data is protected, and the website is not vulnerable to attacks or breaches. Some key security requirements for a music player website include:

- Authentication and authorization: The website should have secure user authentication and authorization mechanisms, ensuring that only authorized users can access the website and their data.
- Data encryption: The website should use encryption to protect user data, such as passwords, credit card information, and personal information.
- Secure communication: The website should use secure communication protocols, such as HTTPS, to protect user data in transit.
- Access controls: The website should have appropriate access controls to limit user access to sensitive data and functionality.

6. Safety Requirements

Safety requirements for a music player website typically focus on protecting users from harm while using the website. It keeps the records. Also, it is safe from various attacks.

User privacy: The website should have privacy controls and data protection measures in place to ensure that users are not at risk of identity theft, fraud, or other types of cybercrime.

7. Usability Requirements

- Intuitive user interface: The website should have a clear and intuitive user interface that allows users to easily navigate the website and find the content they are looking for.
- Simple controls: The website should have simple controls that are easy to understand and use, such as play/pause, skip, volume, and playlist controls.
- Search functionality: The website should have a robust search function that allows users to easily find specific songs, albums, or artists.

8. Reliability Requirements

Reliability requirements for a music player website focus on ensuring that the website operates reliably and consistently, without downtime or errors. Some key reliability requirements for a music player website include:

- Uptime: The website should be available and accessible to users at all times, without extended periods of downtime. It is available to the user all the time.
- Performance: The website should perform well and respond quickly, without lag or delays, to user interactions such as play/pause, skip, and playlist management.

9. Supportability Requirements

It is supported by all the browsers like chrome, Firefox etc.

10. Efficiency Requirements

It works with good efficiency.

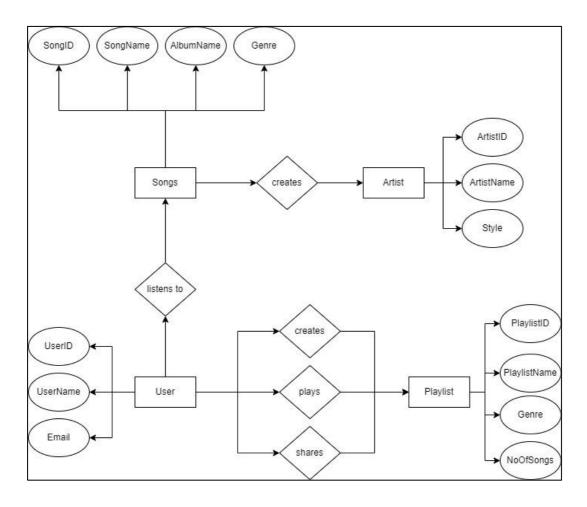
11. Interface Requirements

- Navigation: The website should have a clear and easy-to-use navigation system that allows users to access different functions and features.
- Search: The website should have a search bar that allows users to search for songs, artists, albums, and playlists.

- Playlists: Users should be able to manage playlists easily.
- Playback controls: The website should provide clear and accessible playback controls, such as play, pause, skip, and volume control.
- User accounts: Users should be able to create and manage their accounts easily, with the ability to view their listening history, manage their preferences.

DIAGRAMS:

1. ER-Diagram:



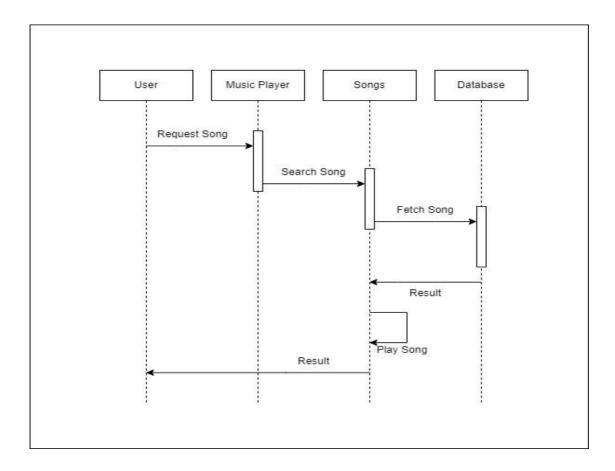
- An ER diagram of a music player would typically include entities such as Songs, Albums,
 Artists, and Playlists, each with their relevant attributes.
- These entities would be related to one another through relationships such as "belongs to," "performed by," "contains," and "has," with varying cardinalities depending on the specific requirements of the music player.
- Attributes associated with these entities could include unique IDs and user preferences.
- Additionally, other considerations such as users, subscription plans, and social features could also be included in the diagram to reflect the complexity of the music player.

2. Class Diagram:

Music Player Song Playlist -isPlaying: boolean -id: int -id: int -volume: float -title: string -name: string -currentSong: Song Name -songs: List<songs> -artist: string -playlist: Playlist Name -album: string +play(): void -duration: float +pause(): void -genre: string +stop(): void +next(): void +previous(): void

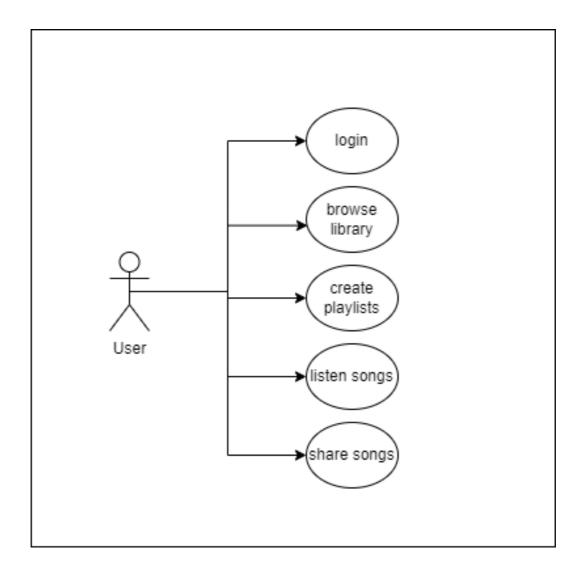
- A class diagram for a music player would typically include classes such as Music Player,
 Song, and Playlist, each with their relevant attributes and methods.
- Inheritance could be used to model the relationships between these classes, with a Playlist composed of multiple Song objects.
- Encapsulation could be used to restrict access to certain attributes and methods of each class.
- Other classes such as User, Subscription, and SocialFeatures could also be included in the diagram to reflect additional requirements.

3. Sequence Diagram



- A sequence diagram for a music player would typically depict actors such as the User, the Music Player application, Songs, and Database, with messages exchanged between these actors.
- The diagram would also show the timing and ordering of these messages, as well as any conditions or loops that could affect the sequence.
- Depending on the specific requirements of the music player, other actors and messages could be included in the diagram to reflect the complexity of the system.

4. Use Case Diagram:



- A use case diagram for a music player would typically depict actors such as the user, the music player application, and external systems or APIs, with use cases related to these actors through relationships such as "extends" and "includes".
- The use cases would include actions such as searching for songs, playing songs, creating and modifying playlists, and accessing external data sources.
- Depending on the specific requirements of the music player, other use cases and actors could be included in the diagram to reflect the complexity of the system.

CONCLUSION AND FUTURE SCOPE

CONCLUSION:

This application will be a new hub for music lovers and a creative social media platform for music producers.

FUTURE SCOPE:

Integration of Social and Collaborative Features: Music is a highly social activity, and users often enjoy sharing their favourite songs and playlists with others. Therefore, future versions of the music player could integrate social and collaborative features such as the ability to create and share playlists with friends, follow other users and discover new music, or even collaborate with other users on a shared playlist.

Integration of Artificial Intelligence and Machine Learning: With the increasing sophistication of AI and machine learning technologies, music players could leverage these capabilities to provide more personalized and intelligent music recommendations, adapt to user preferences over time, and even generate new music based on user inputs.

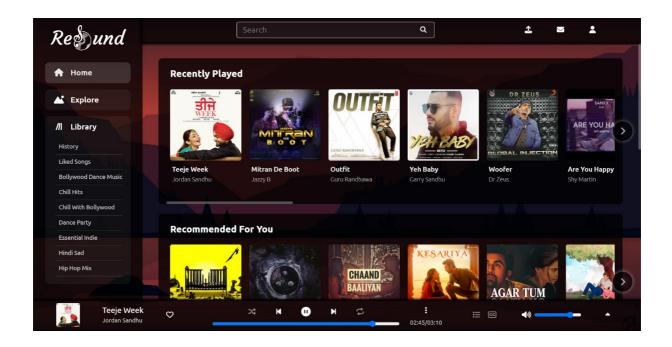
Augmented Reality and Virtual Reality Integration: Augmented reality and virtual reality technologies could be integrated into music players to create immersive and interactive music experiences. For example, users could experience concerts or live performances from the comfort of their homes, or even create their own virtual music environments

REFERENCES:

- 1. https://www.w3schools.com/
- 2. https://developer.mozilla.org/
- $3. \ \underline{https://www.geeksforgeeks.org/}$
- 4. https://stackoverflow.com/

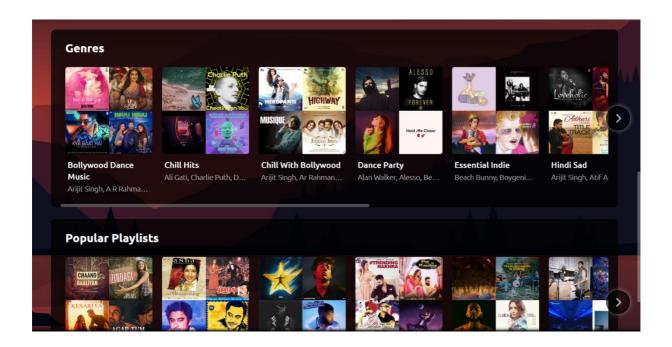
SNAPSHOTS

The Home Tab opens on website load and looks like this.



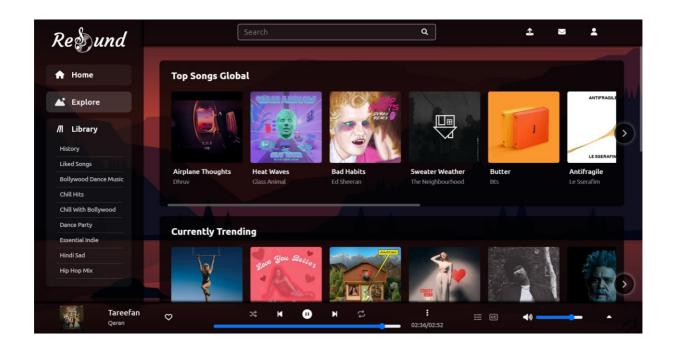
- The user's recently played songs and playlists, recommended songs, popular songs and genres are found in the Home Tab.
- There is a Side Navbar to switch between Home, Explore and Library Tab.
- The Header on top has the Search Bar for the user to search songs and artists on the platform, and it also has a Profile button on the right to Login/Sign Up or Logout.
- Clicking any song plays the song and adds the song to the recently played songs.
- Clicking any playlist opens the Playlist View and gives options to Play the playlist, Shuffle Play, Add to Library, and Add to Queue.

Genres and Popular Playlists are found in the Home Tab.



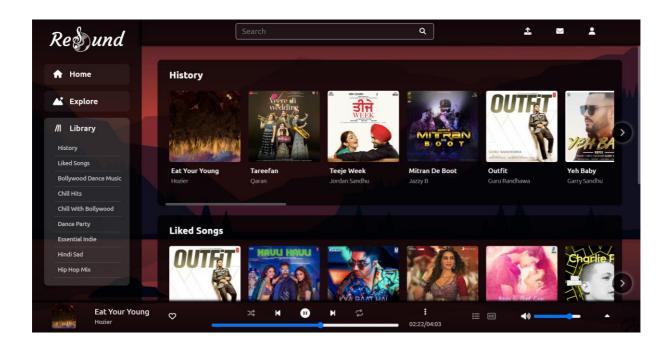
- You can also find multiple songs based on your preferred genre and various popular playlists in the Home Tab.
- You can click on the scroll buttons on the left and right of any category to scroll its content horizontally.
- Clicking the playlist cover opens the Playlist View, however, clicking the Play Icon
 Overlay on the cover directly plays the playlist from the Content Window.

The Explore Tab looks like this.



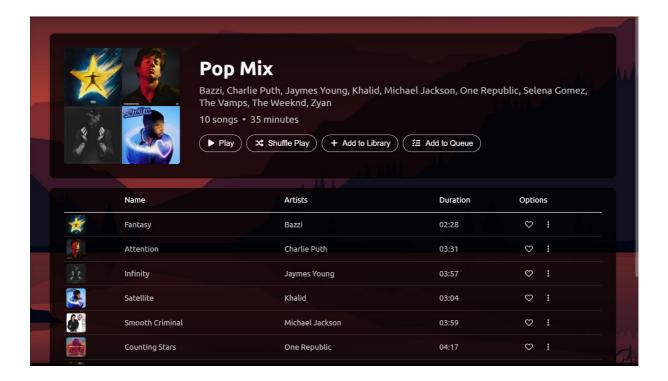
- Top songs on Global charts, Currently Trending Songs and Songs from Popular Artists are displayed in the Explore Tab.
- You can play songs, view playlists and scroll content in the same way as Home Tab on all tabs.
- The content on Explore Tab regular updates with time based on the user's preferences and their listening history.

The Library Tab looks like this.



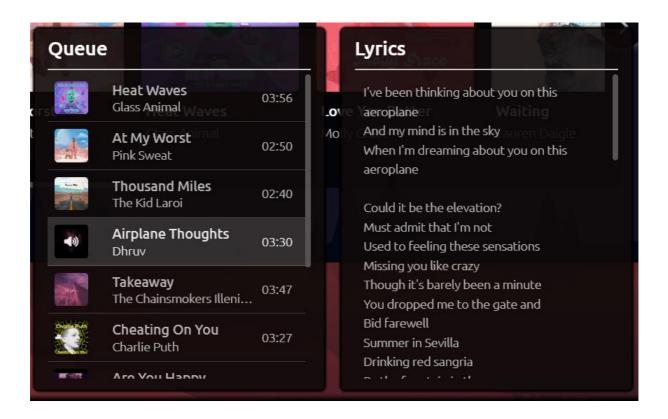
- The user's Listening History, Liked Songs and Saved Playlists are found in the Library Tab.
- As soon as the user plays a new song, the history gets updated and is displayed in the Library Tab.
- Same goes for Liked Songs i.e. as soon as the user likes or unlikes a song it gets added to the Liked Songs Playlist and can be viewed in the Library Tab.

Clicking any playlist opens the playlist view, which looks like this.



- This playlist view displays the Song Names along with their Covers, Artist Names, and Song Duration in the playlist contents.
- Options to Play the playlist, Shuffle Play, and Add to/Remove from Library are also available.
- The user can click on any song to play it, or like it to add it to their liked songs playlist or unlike to remove from the same.

Queue and Lyrics Floating Overlays show the queue and lyrics.



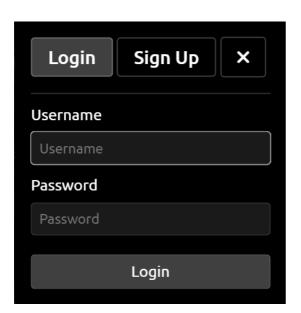
- These floating overlays can be toggled using the Queue and Lyrics buttons in the bottom player bar, or using the shortcut keys "Q" for Queue and "L" for Lyrics.
- The Queue Overlay shows the current playing queue songs with their covers, artists and duration.
- It also allows the user to play any other item in the queue by simply clicking it.
- The Lyrics Overlay simply displays the lyrics of the current playing song and gets updated as soon as a new song plays.

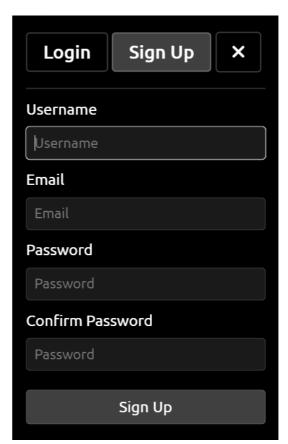
Extended Player for an immersive experience.



- The Extended Player can be toggled with the caret icon in bottom right and shows a larger view of the Queue, Album Cover and Lyrics of the playing song.
- The Queue Section in the Extended Player has the same functionality as the Floating Queue Overlay and allows the user to view the queue and play any other item in the queue.
- The Lyrics Section in the Extended Player shows a larger view of the lyrics to allow the user to easily read the lyrics while listening to their favourite songs.

Login/Sign Up Popups to Log In or Sign Up.





- The user can Log In to their account or Sign Up to a new account allowing them to Like songs, check their Listening History and Save Playlists to their Library.
- Signing Up requires the user to enter a new unique Username, a valid Email Address, Password and then Confirm Password, all of which have to be valid.
- Logging in simply requires the user to enter their Username and Password, and then click the Login Button.

PROJECT CODE:

HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
     <meta charset="UTF-8">
     <meta http-equiv="X-UA-Compatible" content="IE=edge">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <link rel="stylesheet" type="text/css" href="style.css">
     <!-- FONT AWESOME CDN -->
     <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.1/css/all.min.css">
     <!-- FAVICON LINKS -->
     k rel="icon" type="image/x-icon" href="./media/favicon/white/favicon.ico">
     link rel="apple-touch-icon" sizes="180x180" href="./media/favicon/white/apple-touch-icon.png">
     k rel="icon" type="image/png" sizes="192x192" href="./media/favicon/white/android-chrome-
192x192.png">
     k rel="icon" type="image/png" sizes="32x32" href="./media/favicon/white/favicon-32x32.png">
     k rel="icon" type="image/png" sizes="16x16" href="./media/favicon/white/favicon-16x16.png">
     k rel="manifest" href="./media/favicon/white/site.webmanifest">
     <!-- GOOGLE FONTS -->
     k rel="preconnect" href="https://fonts.googleapis.com">
     k rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
     link
href="https://fonts.googleap is.com/css2?family=Courgette\&family=Ubuntu:ital, wght@0,300;0,400;0,500;0,700;\\ href="https://fonts.googleap is.com/css2" italiang 
1,300;1,400;1,500;1,700&display=swap"
           rel="stylesheet">
     <title>Re&ound | An Interactive Music Streaming Platform</title>
</head>
<body>
     <nav class="full-height">
```

```
<div id="nav-logo-container">
 <div id="logo-wrapper">
   <span class="nav-logo-text nav-shrinking-item">
    Re
   </span>
   <img id="nav-logo-image" src="./media/logos/logo white.png" alt="logo">
   <span class="nav-logo-text nav-shrinking-item">
    und
   </span>
   <!-- Re \Boxed Ound -->
 </div>
</div>
<div id="nav-content">
 <div id="nav-home-button-container" class="nav-button-container">
   <div class="nav-button-icon-wrapper">
    <i class="fa-solid fa-house"></i>
   </div>
   Home
   </div>
 <div id="nav-explore-button-container" class="nav-button-container">
   <div class="nav-button-icon-wrapper">
    <i class="fa-solid fa-mountain-sun"></i>
   </div>
   Explore
   </div>
 <div id="nav-library-button-container" class="nav-button-container">
   <div class="nav-button-icon-wrapper">
    <i class="fa-solid fa-lines-leaning"></i>
   Library
   <div class="nav-library-content-items-wrapper nav-shrinking-item">
    History
    Liked Songs
    2020 Favourites
    2021 Favourites
    Favourite Pop Music
    2022 Recap
    2021 Summer Recap
    My SuperMix 4
```

```
</div>
    </div>
  </div>
</nav>
<section class="right-window full-height">
 <header>
    <div id="header-left-empty-part"></div>
   <div id="header-middle-part">
      <div id="search-bar-wrapper">
        <input type="text" name="search" id="search-bar" placeholder="Search">
        <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
      </div>
      <div id="search-suggestions-wrapper" class="shrunk-element">
        <!-- <span class="search-suggestion">
          Search History 1
          <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
        </span>
        <span class="search-suggestion">
          Search History 2
          <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
        </span>
        <span class="search-suggestion">
          Search History 3
          <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
        </span>
        <span class="search-suggestion">
          Search History 4
          <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
        </span>
        <span class="search-suggestion">
          Search History 5
          <i class="fa-solid fa-magnifying-glass search-bar-icon"></i>
        </span> -->
      </div>
    </div>
    <div id="header-right-part">
```

```
<!-- <button id="upload-button-container" class="header-right-part-button standard-button"
title="Upload">
           <i class="fa-solid fa-upload"></i>
        <button id="messages-button-container" class="header-right-part-button standard-button"
title="Messages">
           <i class="fa-solid fa-envelope"></i>
        </button> -->
        <button id="profile-button-container" class="header-right-part-button standard-button" title="User
Profile">
           <i class="fa-solid fa-user"></i>
        </button>
        <div class="profile-dropdown-overlay shrunk-element invisible-element">
             id="profile-dropdown-overlay-login-status">
               Not logged in
             id="profile-dropdown-overlay-login-logout-button">
               Login / Sign Up
             </div>
      </div>
    </header>
    <section id="content-window">
      <div id="recents-category" class="content-window-category">
        <button class="content-window-category-scroll-button content-window-category-scroll-left-button">
           <i class="fa-solid fa-chevron-left"></i>
        </button>
        Recently Played
        <div class="content-window-category-items-wrapper">
           <div class="content-window-category-item">
             <div class="content-window-category-item-cover-wrapper">
               <img src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg"</pre>
alt="recents_item_cover" class="content-window-category-item-cover">
               <div class="content-window-category-item-cover-overlay">
                 <div class="content-window-category-item-cover-overlay-icon-wrapper">
                    <i class="fa-solid fa-play"></i>
                 </div>
               </div>
             </div>
             <div class="content-window-category-item-labels">
               Closer
```

```
The Chainsmokers
           </div>
         </div>
       </div>
       <button class="content-window-category-scroll-button">>
          <i class="fa-solid fa-chevron-right"></i>
       </button>
     </div>
      <div id="recommended-category" class="content-window-category">
       <button class="content-window-category-scroll-button content-window-category-scroll-left-button">
          <i class="fa-solid fa-chevron-left"></i>
        </button>
       Recommended For You
       <div class="content-window-category-items-wrapper">
         <div class="content-window-category-item">
            <div class="content-window-category-item-cover-wrapper">
             <img src="./media/sample_audio_and_covers/covers/imagine_dragons-birds-cover.jpeg"</pre>
alt="recommended_item_cover" class="content-window-category-item-cover">
             <div class="content-window-category-item-cover-overlay">
               <div class="content-window-category-item-cover-overlay-icon-wrapper">
                 <i class="fa-solid fa-play"></i>
               </div>
             </div>
           </div>
           <div class="content-window-category-item-labels">
             Birds
             Imagine Dragons
             </div>
         </div>
       </div>
       <button class="content-window-category-scroll-button content-window-category-scroll-right-button">
         <i class="fa-solid fa-chevron-right"></i>
        </button>
      </div>
     <div id="genres-category" class="content-window-category">
       <button class="content-window-category-scroll-button content-window-category-scroll-left-button">
          <i class="fa-solid fa-chevron-left"></i>
       Popular Genres
       <div class="content-window-category-items-wrapper">
```

```
<div class="content-window-category-item">
             <div class="content-window-category-item-cover-wrapper">
               <div class="content-window-category-item-cover">
                  <img src="./media/sample audio and covers/covers/pop-cover.ipg"</pre>
alt="playlist item cover" class="content-window-category-item-cover-collage-image">
                  <img src="./media/sample audio and covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
                  <img src="./media/sample_audio_and_covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
                  <img src="./media/sample_audio_and_covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
               </div>
               <div class="content-window-category-item-cover-overlay">
                  <div class="content-window-category-item-cover-overlay-icon-wrapper">
                    <i class="fa-solid fa-play"></i>
                  </div>
               </div>
             </div>
             <div class="content-window-category-item-labels">
               Pop
               </div>
           </div>
         </div>
         <button class="content-window-category-scroll-button">>
           <i class="fa-solid fa-chevron-right"></i>
         </button>
      </div>
      <div id="moods-category" class="content-window-category">
         <button class="content-window-category-scroll-button content-window-category-scroll-left-button">
           <i class="fa-solid fa-chevron-left"></i>
         </button>
         Moods
         <div class="content-window-category-items-wrapper">
           <div class="content-window-category-item">
             <div class="content-window-category-item-cover-wrapper">
               <div class="content-window-category-item-cover">
                  <img src="./media/sample_audio_and_covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
                  <img src="./media/sample audio and covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
                  <img src="./media/sample audio and covers/covers/pop-cover.ipg"</pre>
alt="playlist item cover" class="content-window-category-item-cover-collage-image">
```

```
<img src="./media/sample_audio_and_covers/covers/pop-cover.jpg"</pre>
alt="playlist_item_cover" class="content-window-category-item-cover-collage-image">
               </div>
               <div class="content-window-category-item-cover-overlay">
                  <div class="content-window-category-item-cover-overlay-icon-wrapper">
                    <i class="fa-solid fa-play"></i>
                  </div>
               </div>
             </div>
             <div class="content-window-category-item-labels">
               Chill
               </div>
           </div>
         </div>
         <button class="content-window-category-scroll-button content-window-category-scroll-right-button">
           <i class="fa-solid fa-chevron-right"></i>
         </button>
      </div>
      -->
      <!--
      <div id="playlist-description">
         <div id="playlist-description-cover-wrapper">
           <div id="playlist-description-cover">
             <img src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg"</pre>
alt="playlist_cover" class="playlist-description-cover-collage-image">
             <img src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg"</pre>
alt="playlist_cover" class="playlist-description-cover-collage-image">
             <img src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg"</pre>
alt="playlist_cover" class="playlist-description-cover-collage-image">
             <img src="./media/sample audio and covers/covers/the chainsmokers-closer-cover.jpg"</pre>
alt="playlist_cover" class="playlist-description-cover-collage-image">
           </div>
         </div>
         <div id="playlist-description-info-and-buttons">
           <div id="playlist-description-info">
             Playlist Title
             Playlist Artists
             <div id="playlist-info-count-and-duration">
               <span class="playlist-info-song-count-number">x</span>
                  <span class="playlist-info-song-count-label">&nbsp;songs &nbsp;&nbsp;&nbsp;/
```

```
<span class="playlist-info-duration-number">y</span>
         <span class="playlist-info-duration-label">&nbsp;minutes</span>
       </div>
   </div>
   <div id="playlist-description-buttons">
     <button id="playlist-description-play-button" class="playlist-description-button">
       <i class="fa-solid fa-play playlist-description-button-icon"></i>
       Play
     </button>
     <button id="playlist-description-shuffle-play-button" class="playlist-description-button">
       <i class="fa-solid fa-shuffle playlist-description-button-icon"></i>
       Shuffle Play
     </button><br>
     <button id="playlist-description-add-to-library-button" class="playlist-description-button">
       <i class="fa-solid fa-plus playlist-description-button-icon"></i>
       Add to Library
     </button>
     <button id="playlist-description-more-options-button" class="playlist-description-button">
       <i class="fa-solid fa-ellipsis-vertical playlist-description-button-icon"></i>
       More Options
     </button>
   </div>
 </div>
</div>
<div id="playlist-content">
 <div id="playlist-content-header">
   <div class="playlist-content-cover-column"></div>
   Name
   Artists
   Duration
   Options
 </div>
 <hr>>
 <div id="playlist-content-items">
   <div class="playlist-content-item">
     <div class="playlist-content-cover-column">
```

```
<img class="playlist-content-item-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="playlist_item_cover">
              <div class="content-item-cover-overlay-icon-wrapper">
                <i class="fa-solid fa-play playlist-content-item-cover-image-overlay-icon"></i>
              </div>
            </div>
            Closer
            The Chainsmokers
            <div class="playlist-content-options-column">
              <button class="playlist-content-item-like-button standard-button" title="Like">
                <i class="fa-regular fa-heart"></i>
                <i class="fa-solid fa-heart"></i>
              </button>
              <button class="playlist-content-item-options-button standard-button" title="Options">
                <i class="fa-solid fa-ellipsis-vertical"></i>
              </button>
            </div>
          </div>
         <div class="playlist-content-item">
            <div class="playlist-content-cover-column">
              <img class="playlist-content-item-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="playlist_item_cover">
              <div class="content-item-cover-overlay-icon-wrapper">
                <i class="fa-solid fa-play playlist-content-item-cover-image-overlay-icon"></i>
              </div>
            </div>
```

```
The Chainsmokers
             04:03
             <div class="playlist-content-options-column">
               <button class="playlist-content-item-like-button standard-button" title="Like">
                 <i class="fa-regular fa-heart"></i>
                 <i class="fa-solid fa-heart"></i>
               </button>
              <button class="playlist-content-item-options-button standard-button" title="Options">
                 <i class="fa-solid fa-ellipsis-vertical"></i>
               </button>
             </div>
          </div>
        </div>
      </div>
      -->
    </section>
    <div id="player-floating-part">
      <div id="floating-queue-overlay" class="player-floating-part-item-overlay shrunk-element">
        Queue
        <div id="floating-queue-overlay-content-wrapper" class="queue-lyrics-content-wrapper">
          <div class="queue-overlay-content-item">
             <div class="queue-content-item-cover-column">
               <img class="queue-content-item-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="queue_item_cover">
               <div class="content-item-cover-overlay-icon-wrapper">
                 <i class="fa-solid fa-play queue-content-item-cover-overlay-icon"></i>
                 <i class="fa-solid fa-volume-high queue-content-item-cover-overlay-icon"></i>
               </div>
             </div>
             <div class="queue-content-item-name-and-artists-column">
```

```
I Don't Wanna Live Forever (Fifty Shades Darker)
           ZAYN & Taylor Swift
           </div>
          </div>
        -->
      </div>
     </div>
    <div id="floating-lyrics-overlay" class="player-floating-part-item-overlay shrunk-element">
      Lyrics
      <hr>
      wrapper">
    </div>
   </div>
   <div class="player-extended-overlay shrunk-element">
     <div id="player-extended-queue" class="player-extended-overlay-part">
      Queue
      <hr>>
      <div id="player-extended-queue-content-wrapper" class="queue-lyrics-content-wrapper">
        <!--
        <div class="queue-overlay-content-item">
         <div class="queue-content-item-cover-column">
           <img class="queue-content-item-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="queue_item_cover">
           <div class="content-item-cover-overlay-icon-wrapper">
             <i class="fa-solid fa-play queue-content-item-cover-overlay-icon"></i>
           </div>
         </div>
         <div class="queue-content-item-name-and-artists-column">
           I Don't Wanna Live Forever (Fifty Shades Darker)
           ZAYN & Taylor Swift
           </div>
          04:03
```

```
<\!\! div>
                           -->
                     </div>
               <div id="player-extended-cover" class="player-extended-overlay-part">
                     <!-- <div id="player-extended-cover-image-wrapper"> -->
                          <!-- <img id="player-extended-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="song_cover_image"> --
                          <!-- <img id="player-extended-cover-image" src="" alt="song_cover_image"> -->
                     <!-- </div> -->
                </div>
                <div id="player-extended-lyrics" class="player-extended-overlay-part">
                     Lyrics
                     <hr>
                     <p id="player-extended-lyrics-content-wrapper" class="queue-lyrics-content-wrapper lyrics-content-wrapper" class="queue-lyrics-content-wrapper" class="queue
wrapper">
                </div>
           </div>
     </section>
     <div class="player inactive-player">
           <div id="player-left-part">
                <div id="player-song-cover">
                    <!-- <img id="player-song-cover-image"
src="./media/sample_audio_and_covers/covers/the_chainsmokers-closer-cover.jpg" alt="song_cover_image"> --
                     <img id="player-song-cover-image" src="" alt="song_cover_image">
                </div>
                <div id="player-song-info">
                    <!-- <p id="player-song-name">Closer<br>
                     The Chainsmokers -->
                     <!-- <p id="player-song-name">I Don't Wanna Live Forever<br/>br> -->
                     <!-- <p id="player-song-artist">Taylor Swift and Zayn Malik -->
                     <br>
                     </div>
               <button id="player-left-part-like-button-container" class="standard-button" title="Like">
                     <i class="fa-regular fa-heart"></i>
                     <!-- <i class="fa-regular fa-heart"></i> -->
                </button>
```

```
</div>
<div id="player-middle-part">
  <div id="player-middle-part-main">
    <div id="player-middle-part-controls">
       <button id="shuffle-button-container"
         class="standard-button" title="Shuffle">
         <i class="fa-solid fa-shuffle inactive-button"></i>
       </button>
       <button id="previous-song-button-container"
         class="standard-button" title="Play Previous Song">
         <i class="fa-solid fa-backward-step"></i>
       </button>
       <button id="play-pause-button-container"
         class="standard-button" title="Play">
         <i class="fa-solid fa-circle-play"></i>
         <!-- <i class="fa-solid fa-circle-pause"></i> -->
       </button>
       <button id="next-song-button-container"
         class="standard-button" title="Play Next Song">
         <i class="fa-solid fa-forward-step"></i>
       </button>
       <button id="repeat-button-container"
         class="standard-button" title="Repeat">
         <i class="fa-solid fa-1 shrunk-element"></i>
         <i class="fa-solid fa-repeat inactive-button"></i>
       </button>
    </div>
    <input type="range" name="player-seek-bar" id="player-seek-bar" value="0">
  <div id="player-middle-part-right">
    <button id="player-options-button-container" class="standard-button" title="Options">
       <i class="fa-solid fa-ellipsis-vertical"></i>
    </button>
    <div id="player-middle-part-timestamp">
       <span id="audio-current-duration"></span>/<span id="audio-total-duration">04:03</span>
     </div>
  </div>
</div>
<div id="player-right-part">
  <div id="player-right-part-main-controls">
```

```
<button id="queue-button-container" class="standard-button" title="Queue">
            <i class="fa-solid fa-list inactive-button"></i>
         </button>
         <button id="lyrics-button-container" class="standard-button" title="Lyrics">
           <!-- <i class="fa-solid fa-closed-captioning"></i> -->
           <i class="fa-regular fa-closed-captioning inactive-button"></i>
         </button>
       </div>
       <div id="player-right-part-volume-controls">
         <button id="volume-button-container" class="standard-button" title="Mute">
            <i id="player-right-part-volume-button" class="fa-solid fa-volume-high"></i>
         </button>
         <input type="range" name="volume-seek-bar" id="volume-seek-bar" value="80" title="Volume">
       <button id="player-extend-button-container" class="standard-button" title="Extend Player">
         <i class="fa-solid fa-caret-up"></i>
         <!-- <i class="fa-solid fa-caret-down"></i> -->
       </button>
     </div>
     <audio id="player-audio-controls">
       <!-- <source
src="./media/sample audio and covers/audio/renamed/Closer The Chainsmokers ft Halsey 320 PagalWo
rld_.mp3" type="audio/mpeg"> -->
       <source src="" type="audio/mpeg">
     </audio>
  </div>
  <div id="body-wallpaper">
     <img class="body-wallpaper-image" src="./media/wallpapers/3046432.jpg" alt="background_wallpaper">
     <div class="body-wallpaper-overlay"></div>
  </div>
  <div class="login-popup invisible-element">
     <div class="login-popup-fade-bg"></div>
     <div class="login-popup-box">
       <div class="login-popup-tab-buttons">
         <div id="login-popup-login-tab-button" class="login-popup-tab-button login-popup-tab-active-
button">
              Login
         </div>
         <div id="login-popup-signup-tab-button" class="login-popup-tab-button">
              Sign Up
```

```
</div>
     <i id="login-popup-close-button" class="fa-solid fa-times login-popup-tab-button"></i>
    </div>
    <hr>
    <div class="login-popup-login-tab invisible-element shrunk-element">
     <form class="login-popup-tab-form">
       Username
       <input type="text" name="username" class="login-popup-username-input"</pre>
placeholder="Username">
       Password
       <input type="password" name="password" class="login-popup-password-input"</pre>
placeholder="Password">
       <button id="login-popup-submit-login-button" class="login-popup-submit-button">
       Login
     </button>
    </div>
    <div class="login-popup-signup-tab invisible-element shrunk-element">
     <form class="login-popup-tab-form">
       Username
       <input type="text" name="username" class="login-popup-username-input"</pre>
placeholder="Username">
       Email
       <input type="email" name="email" class="login-popup-email-input" placeholder="Email">
       Password
       <input type="password" name="password" class="login-popup-password-input"
placeholder="Password">
       Confirm Password
       <input type="password" name="confirm-password" class="login-popup-confirm-password-input"</pre>
placeholder="Password">
       <button id="login-popup-submit-signup-button" class="login-popup-submit-button">
       Sign Up
```

CSS:

```
:root{
  --header-height: 64px;
  --player-height: 75px;
  --nav-width: 18%;
  --nav-min-width: 250px;
  --nav-max-width: 350px;
  --content-window-item-background-color: rgba(0, 0, 0, 0.5);
  --content-window-category-item-cover-wrapper-side: 180px;
  --playlist-description-cover-side: 240px;
  --sub-label-color: rgba(255, 255, 255, 0.7);
  --hover-bg-color-light: rgba(255, 255, 255, 0.25);
  --item-border-bottom-color: rgba(255, 255, 255, 0.2);
  --panels-bg-color: rgba(0, 0, 0, 0.75);
  --panels-box-shadow-color: black;
  --panels-box-shadow: 0 0 5px 5px var(--panels-box-shadow-color);
  --overlay-box-shadow: 0 0 2px 2px var(--panels-box-shadow-color);
  --buttons-box-shadow: 0 0 10px 7px var(--hover-bg-color-light) inset;
  --hover-box-shadow-color: rgba(0, 0, 0, 0.5);
  /* --floating-panels-bg-color: rgba(0, 0, 0, 0.90); */
  --floating-panels-bg-color: rgb(15, 10, 10, 0.9);
  --playlist-page-bg-color: var(--panels-bg-color);
  --playlist-content-item-cover-side: 2rem;
  --floating-queue-content-item-cover-side: 1.9rem;
```

```
--player-extended-queue-content-item-cover-side: 2.3rem;
  --transition-properties: all 0.2s;
  /* --transition-properties: none; */
/* SCROLLBAR CUSTOMIZATION */
::-webkit-scrollbar {
        width: 7px;
  height: 7px;
  border-radius: 4px;
::-webkit-scrollbar-thumb {
        width: 7px;
  height: 7px;
        background: rgba(255, 255, 255, 0.3);
        border-radius: 4px;
::-webkit-scrollbar-thumb:hover {
        background: rgba(255, 255, 255, 0.5);
}
html, body{
  height: 100%;
  width: 100%;
  /* min-width: 900px; */
  font-size: 20px;
  font-family: 'Ubuntu', sans-serif;
  box-sizing: border-box;
  position: relative;
*, *:before, *:after{
  margin: 0;
  padding: 0;
  text-decoration: none;
  box-sizing: inherit;
        transition: var(--transition-properties);
  scroll-behavior: smooth;
}
/* TAGS */
p{
  display: inline-block;
  margin: 0;
  padding: 0;
a{
```

```
color: white;
input{
  font-family: inherit;
input[type='range']{
  cursor: pointer;
  border-radius: 0.5rem;
input:focus-visible{
  outline: 1px solid white;
input[type='range']:focus-visible{
  outline-offset: 0.25rem;
button{
  background-color: transparent;
  border: none;
  outline: none;
  color: inherit;
  cursor: pointer;
  font-size: inherit;
button:focus-visible{
  /* outline: 1px solid white; */
  box-shadow: var(--buttons-box-shadow);
hr{
  width: 100%;
. standard\text{-}button \{
  position: relative;
  height: 2rem;
  width: 2rem;
  border-radius: 1rem;
  display: inline-flex;
  flex-direction: column;
  justify-content: center;
  align-items: center;
  font-size: 0.9rem;
.standard-button:hover{
  box-shadow: var(--buttons-box-shadow);
```

/* WALLPAPER */

```
.body-wallpaper-image{
  height: 100%;
  width: 100%;
  object-fit: cover;
  position: fixed;
  top: 0;
  left: 0;
  z-index: -100;
.body-wallpaper-overlay{
  height: 100%;
        width: 100%;
        background-color: rgb(0, 0, 0, 0.25);
        position: fixed;
        top: 0;
  left: 0;
        z-index: -50;
        /* overflow-y: auto; */
/* INSIDE BODY */
  height: calc(100% - var(--player-height));
  width: var(--nav-width);
  min-width: var(--nav-min-width);
  max-width: var(--nav-max-width);
  background-color: var(--panels-bg-color);
  color: white;
  position: fixed;
  top: 0;
  left: 0;
  z-index: 10;
#nav-logo-container{
  height: calc(1rem + var(--header-height));
  display: flex;
  align-items: center;
  justify-content: space-around;
  font-size: 2rem;
  padding-top: 1rem;
#logo-wrapper{
  height: 100%;
  display: flex;
  align-items: center;
```

```
justify-content: center;
  font-family: 'Courgette', cursive;
  font-size: 2.4rem;
  cursor: pointer;
#nav-logo-image{
  height: 64px;
  padding: 0 3px 0 4px;
#nav-content{
  height: calc(100% - 1rem - var(--header-height));
  overflow-y: hidden;
  padding: 0.75rem;
#nav-content:hover{
  overflow-y: auto;
. nav-button-container \{\\
  background-color: rgba(255, 255, 255, 0.05);
  border-radius: 0.5rem;
  text-align: left;
  cursor: pointer;
  margin: 0.75rem 0.75rem 0;
  padding: 0.75rem 1rem;
.nav-button-container:hover{
  background-color: var(--hover-bg-color-light);
.nav-button-container-shrunk{
  margin: 0.75rem 0 0;
  padding: 0.75rem 0.5rem;
  display: flex;
  align-items: center;
  justify-content: center;
.nav-button-icon-wrapper{
  display: inline-block;
  width: 1.5rem;
  text-align: center;
.nav-button-container-label{
  font-weight: 500;
  margin-left: 0.5rem;
.nav-library-content-items-wrapper{
  margin: 1rem 0 0.25rem 0.25rem;
  max-height: 17.3rem;
```

```
overflow-y: hidden;
#nav-library-button-container:hover{
  padding-right: 0.75rem;
  transition: none 0s:
#nav-library-button-container:hover .nav-library-content-items-wrapper{
  overflow-y: auto;
.nav-library-content-item{
  width: 100%;
  color: rgba(255, 255, 255, 0.75);
  font-size: 0.75rem;
  text-align: left;
  display: block;
  overflow: hidden;
  white-space: nowrap;
  text-overflow: ellipsis;
  border-bottom: 1px solid var(--item-border-bottom-color);
  padding: 0.5rem 0 0.5rem 0.5rem;
.nav-library-content-item:hover{
  color: white;
  background-color: rgba(0, 0, 0, 0.35);
.right-window{
  height: calc(100% - var(--player-height));
  width: calc(100% - var(--nav-width));
  min-width: calc(100% - var(--nav-max-width));
  max-width: calc(100% - var(--nav-min-width));
  position: fixed;
  top: 0;
  right: 0;
  bottom: var(--player-height);
/* INSIDE RIGHT WINDOW */
header{
  height: var(--header-height);
  width: inherit;
  min-width: inherit;
  max-width: inherit;
  position: fixed;
  top: 0;
  right: 0;
```

```
z-index: 20;
  background-color: var(--panels-bg-color);
  box-shadow: var(--panels-box-shadow);
  display: flex;
  align-items: center;
  justify-content: space-between;
  color: white;
  padding: 0 4%;
  transition: none;
#header-left-empty-part{
  height: 100%;
  width: 10%;
#header-middle-part{
  width: 55%;
  min-width: 300px;
  display: flex;
  align-items: center;
  justify-content: center;
  position: relative;
  font-weight: 300;
#search-bar-wrapper{
  width: 80%;
  position: relative;
  display: flex;
  align-items: center;
#search-bar{
  width: 100%;
  color: white;
  font-size: 1rem;
  padding: 0.4rem 2.5rem 0.4rem 0.75rem;
  border-radius: 0.25rem;
  background-color: rgba(255, 255, 255, 0.05);
  border: 1px solid white;
  position: relative;
#search-suggestions-wrapper{
  width: calc(80% - 1.5rem);
  font-size: 0.9rem;
  position: absolute;
  top: 2.1rem;
  background-color: var(--floating-panels-bg-color);
  border-radius: 0 0 0.25rem 0.25rem;
```

```
.search-suggestion{
  display: flex;
  align-items: center;
  width: 100%;
  padding: 0.75rem 2.5rem 0.75rem 1rem;
  cursor: pointer;
  position: relative;
.search-suggestion-text{
  width: 100%;
.search-suggestion:hover{
  background-color: var(--hover-bg-color-light);
.search-bar-icon{
  position: absolute;
  font-size: 0.8em;
  right: 1rem;
  color: white;
#header-right-part{
  width: 25%;
  margin: 0 0 0 10%;
  display: flex;
  align-items: center;
  /* justify-content: space-evenly; */
  /* temporarily disabling upload and messaging buttons and changing justify-content to right */
  justify-content: right;
  padding-right: 1rem;
.profile-dropdown-overlay{
  position: absolute;
  top: calc(var(--header-height) + 0.5rem);
  right: 7.5%;
  width: 10rem;
  background-color: var(--floating-panels-bg-color);
  box-shadow: var(--overlay-box-shadow);
  padding: 0.35rem;
  border-radius: 0.25rem 0 0.25rem 0.25rem;
  font-weight: 400;
  font-size: 0.75rem;
.profile-dropdown-overlay ul li{
  width: 100%;
  padding: 0.5rem;
  /* border-top: 1px solid var(--item-border-bottom-color); */
```

```
border-bottom: 1px solid var(--item-border-bottom-color);
  list-style: none;
  overflow: hidden;
  white-space: nowrap;
  text-overflow: ellipsis;
#profile-dropdown-overlay-login-status{
  cursor: default
.profile-dropdown-overlay ul li:not(#profile-dropdown-overlay-login-status):hover{
  background-color: var(--hover-bg-color-light);
.login-popup-fade-bg{
  position: fixed;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
  background-color: rgba(0, 0, 0, 0.5);
  z-index: 20;
.login-popup-box{
  width: 350px;
  position: fixed;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  background-color: var(--floating-panels-bg-color);
  background-color: black;
  box-shadow: var(--overlay-box-shadow);
  padding: 1rem;
  border-radius: 0.25rem;
  z-index: 21;
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: space-evenly;
  font-size: 1.2rem;
  color: white;
  overflow-y: auto;
  max-height: calc(100% - var(--header-height) - var(--player-height) - 2rem);
.login-popup-tab-buttons{
  width: 100%;
  display: flex;
  align-items: center;
  justify-content: space-between;
```

```
font-size: 1.2rem;
  font-weight: 500;
.login-popup-tab-button{
  flex-grow: 1;
  cursor: pointer;
  padding: 0.5rem;
  border-radius: 0.25rem;
  text-align: center;
  margin: 0 0.25rem 0 0;
  border: 2px solid var(--hover-bg-color-light);
.login-popup-tab-active-button{
  background-color: var(--hover-bg-color-light);
:not(.login-popup-tab-active-button).login-popup-tab-button:hover{
  background-color: var(--hover-bg-color-light);
\#login-popup-close-button\{
  height: 2.64rem;
  display: flex;
  align-items: center;
  justify-content: center;
.login-popup-box hr{
  width: 100%:
  border: 1px solid var(--item-border-bottom-color);
  margin: 1rem 0 0;
.login-popup-input-label{
  font-weight: 400;
  margin-top: 0.75rem;
  font-size: 1rem;
.login-popup-box input{
  width: 100%;
  padding: 0.5rem;
  border-radius: 0.25rem;
  border: 1px solid var(--item-border-bottom-color);
  background-color: rgba(255, 255, 255, 0.1);
  color: white;
  font-size: 0.9rem;
  font-weight: 400;
  margin: 0.5rem 0 0;
.login-popup-caution-text{
  font-size: 0.8rem:
```

```
padding-top: 0.25rem;
  color: rgba(255, 32, 32, 0.75);
  width: 100%;
.login-popup-submit-button{
  width: 100%:
  padding: 0.5rem;
  border-radius: 0.25rem;
  border: 1px solid var(--item-border-bottom-color);
  background-color: rgba(255, 255, 255, 0.25);
  color: white;
  font-family: inherit;
  font-size: 1rem;
  font-weight: 400;
  margin: 1.25rem 0 0;
.login-popup-submit-button:hover{
  background-color: rgba(255, 255, 255, 0.35);
/* RIGHT CONTENT WINDOW */
#content-window{
  position: absolute;
  top: var(--header-height);
  right: 0;
  bottom: var(--player-height);
  height: calc(100% - var(--header-height));
  width: 100%:
  min-width: 100%;
  max-width: 100%;
  overflow-y: auto;
  display: flex;
  align-items: center;
  flex-direction: column;
  color: white;
/* GENERAL CONTENT WINDOW STYLES */
.content-window-category{
  width: calc(100% - 4rem);
  flex-shrink: 0;
  background-color: var(--panels-bg-color);
  margin-top: 1.25rem;
  border-radius: 0.5rem;
  padding: 1rem 1rem 0;
  position: relative;
```

```
.content-window-category:first-child{
  margin-top: 2rem;
.content-window-category:last-child{
  margin-bottom: 2rem;
.content-window-category-label{
  width: 100%;
  padding: 5px 10px;
  border-radius: 10px;
  font-size: 1.2rem;
  font-weight: bolder;
.content-window-category-items-wrapper{
  display: flex;
  overflow: auto;
  padding: 0 0 0 10px;
.content-window-category-item{
  width: var(--content-window-category-item-cover-wrapper-side);
  margin: 1rem 1rem 0.35rem 0;
.content-window-category-item-cover-wrapper{
  height: var(--content-window-category-item-cover-wrapper-side);
  width: var(--content-window-category-item-cover-wrapper-side);
  position: relative:
.content-window-category-item-cover{
  height: var(--content-window-category-item-cover-wrapper-side);
  width: var(--content-window-category-item-cover-wrapper-side);
  object-fit: cover;
  border-radius: 0.25rem;
  overflow: hidden;
  display: flex;
  flex-wrap: wrap;
.content-window-category-item-cover-collage-image{
  height: calc(var(--content-window-category-item-cover-wrapper-side) / 2);
  width: calc(var(--content-window-category-item-cover-wrapper-side) / 2);
  object-fit: cover;
.content-window-category-item-cover-overlay{
  height: calc(100%);
  width: 100%;
  position: absolute;
  top: 0;
  left: 0;
```

```
z-index: 1;
  border-radius: 0.25rem;
  box-shadow: 0 0 50px 50px var(--hover-box-shadow-color) inset;
  cursor: pointer;
  opacity: 0;
.content-window-category-item-cover-overlay:hover{
  opacity: 1;
.content-window-category-item-cover-overlay-icon-wrapper{
  position: absolute;
  right: 0;
  bottom: 0;
  margin: 0.75rem;
  padding-left: 0.1rem;
  padding-top: 0.05rem;
  box-shadow: 0 0 10px 10px var(--hover-box-shadow-color) inset, 0 0 10px 5px rgba(255, 255, 255, 0.3);
.content-window-category-item-cover-overlay-icon-wrapper:hover{
  box-shadow: 0 0 10px 10px black inset, 0 0 10px 10px rgba(255, 255, 255, 0.3);
.content-window-category-item-labels{
  padding: 10px 5px;
  position: relative;
  height: max-content;
  overflow: hidden;
  font-weight: 500;
.content-window-category-item-mainlabel{
  font-size: 0.85rem;
  width: 100%;
  margin-bottom: 5px;
  line-height: 1.2rem;
.content-window-category-item-sublabel{
  width: 100%;
  font-size: 0.75rem;
  color: var(--sub-label-color);
  font-weight: 300;
  white-space: nowrap;
  overflow: hidden;
  text-overflow: ellipsis;
.content-window-category-scroll-button{
  height: 2.5rem;
  width: 2.5rem;
  border-radius: 1.25rem:
```

```
box-shadow: 0 0 1rem 0.5rem var(--panels-bg-color) inset, 0 0 0.5rem 0 rgba(255, 255, 255, 0.5);
  color: var(--sub-label-color);
  position: absolute;
  top: calc(50% - 1.25rem);
  z-index: 2:
  display: flex;
  justify-content: center;
  align-items: center;
.content-window-category-scroll-left-button{
  left: -1.25rem;
.content-window-category-scroll-right-button{
  right: -1.25rem;
.content-window-category-scroll-button:hover{
  color: white;
  background-color: var(--hover-bg-color-light);
  box-shadow: 0 0 1rem 0.5rem var(--panels-bg-color) inset, 0 0 1rem 0.1rem rgba(255, 255, 255, 0.5);
/* PLAYLIST PAGE */
/* playlist description */
#playlist-description{
  width: calc(100% - 4rem);
  background-color: var(--playlist-page-bg-color);
  border-radius: 0.5rem;
  margin-top: 2rem;
  padding: 1.5rem;
  display: flex;
  align-items: center;
  justify-content: start;
#playlist-description-cover-wrapper{
  height: 100%;
  display: flex;
  align-items: center;
  justify-content: center;
  flex-wrap: wrap;
  margin-right: 2rem;
#playlist-description-cover{
  height: var(--playlist-description-cover-side);
  width: var(--playlist-description-cover-side);
  object-fit: cover;
```

```
border-radius: 0.25rem;
  overflow: hidden;
  display: flex;
  flex-wrap: wrap;
.playlist-description-cover-collage-image{
  height: calc(var(--playlist-description-cover-side) / 2);
  width: calc(var(--playlist-description-cover-side) / 2);
  object-fit: cover;
#playlist-description-info-and-buttons{
  width: 100%;
  width: calc(100% - var(--playlist-description-cover-side) - 2rem);
#playlist-description-info{
  width: 100%;
  display: flex;
  flex-direction: column;
  justify-content: center;
  margin-bottom: 0.5rem;
#playlist-description-info > * {
  margin-bottom: 0.5rem;
#playlist-info-title{
  font-size: 2rem:
  font-weight: bold;
  margin-bottom: 0.5rem;
#playlist-info-artists{
  color: var(--sub-label-color);
  line-height: 1.3rem;
#playlist-info-count-and-duration{
  color: var(--sub-label-color);
#playlist-description-buttons{
  display: flex;
  flex-wrap: wrap;
  width: 100%;
.playlist-description-button{
  height: 1.8rem;
  max-width: fit-content;
  display: block;
  border: 1px solid white;
  border-radius: 2rem:
```

```
margin-right: 0.5rem;
  margin-bottom: 0.25rem;
  padding: 0.4rem 0.75rem 0.4rem 0.9rem;
  font-size: 0.8rem;
.playlist-description-button:hover{
  box-shadow: var(--buttons-box-shadow);
. playlist-description-button-icon \{\\
  margin-right: 0.5rem;
/* playlist contents */
#playlist-content{
  width: calc(100% - 4rem);
  background-color: var(--playlist-page-bg-color);
  margin: 1rem 0 2rem;
  border-radius: 0.5rem;
  padding: 0 1.5rem 0.75rem;
  display: flex;
  flex-direction: column;
  align-items: center;
  font-size: 0.8rem;
#playlist-content hr{
  font-size: 5px;
#playlist-content-header{
  width: 100%;
  display: flex;
  align-items: center;
  padding: 0.75rem 0.25rem;
#playlist-content-items{
  width: 100%;
.playlist-content-item{
  width: 100%;
  display: flex;
  align-items: center;
  padding: 0.25rem;
  border-bottom: 1px solid var(--item-border-bottom-color);
  color: var(--sub-label-color);
.playlist-content-item:hover{
  background-color: var(--hover-bg-color-light);
```

```
color: rgba(255, 255, 255, 0.9);
/* playlist contents columns */
.playlist-content-cover-column{
  width: 10%;
  display: inline-flex;
  align-items: center;
  position: relative;
.playlist-content-name-column{
  width: 30%;
  padding: 0 0.5rem;
#playlist-content .playlist-content-name-column{
  cursor: pointer;
.playlist-content-artists-column{
  width: 30%;
  white-space: nowrap;
  overflow: hidden;
  text-overflow: ellipsis;
  padding: 0 0.5rem;
.playlist-content-duration-column{
  width: 15%;
.playlist-content-options-column{
  width: 15%;
  display: inline-flex;
.playlist-content-options-column button{
  font-size: 0.8rem;
/* playlist item cover image */
.playlist-content-item-cover-image{
  height: var(--playlist-content-item-cover-side);
  width: var(--playlist-content-item-cover-side);
  border-radius: 0.2rem;
.playlist-content-cover-column .content-item-cover-overlay-icon-wrapper{
  height: var(--playlist-content-item-cover-side);
  width: var(--playlist-content-item-cover-side);
  border-radius: 0.2rem;
  position: absolute;
  top: 0;
```

```
left: 0;
  display: flex;
  align-items: center;
  justify-content: center;
  z-index: 1:
  box-shadow: 0 0 0.5rem 0.35rem rgba(0, 0, 0, 0.5) inset;
  background-color: rgba(0, 0, 0, 0.5);
  cursor: pointer;
  opacity: 0;
  font-size: 0.7rem;
.playlist-content-item:hover .content-item-cover-overlay-icon-wrapper{
  opacity: 1;
/* MAIN PLAYER */
.player{
  height: var(--player-height);
  width: 100%;
  min-width: inherit;
  background-color: var(--panels-bg-color);
  box-shadow: var(--panels-box-shadow);
  padding: 5px 10px 15px;
  display: flex;
  align-items: center;
  justify-content: space-around;
  color: white;
  position: fixed;
  bottom: 0;
  left: 0;
  right: 0;
  z-index: 10;
.inactive-player{
  bottom: calc(var(--player-height) * -1);
}
/* player left part */
#player-left-part{
  height: 100%;
  width: 25%;
  display: flex;
  align-items: center;
  justify-content: space-evenly;
  margin-top: 0.25rem;
```

```
#player-song-cover{
  height: 60px;
  width: 60px;
  border-radius: 0.2rem;
  margin-top: 0.05rem;
#player-song-cover-image{
  height: inherit;
  width: inherit;
  border-radius: 0.2rem;
  object-fit: cover;
#player-song-info{
  width: calc(90% - 60px);
  max-width: max-content;
  padding: 0.25rem 0.5rem 0 1rem;
#player-song-name{
  width: 100%;
  white-space: nowrap;
  overflow: hidden;
  text-overflow: ellipsis;
#player-song-artist{
  width: 100%;
  font-size: 0.75rem;
  color: var(--sub-label-color);
  overflow: hidden;
  white-space: nowrap;
  text-overflow: ellipsis;
/* player middle part */
#player-middle-part{
  height: 100%;
  width: 40%;
  display: flex;
  align-items: center;
#player-middle-part-main{
  display: flex;
  flex-direction: column;
  width: 100%;
#player-middle-part-controls{
  margin: 0.25rem auto 0;
```

```
width: 70%;
  display: flex;
  align-items: center;
  justify-content: space-evenly;
#repeat-button-container i:first-of-type{
  font-size: 0.45rem;
#play-pause-button-container{
  font-size: 1.2rem;
  width: 2.2rem;
  height: 2.2rem;
  border-radius: 1.1rem;
#player-seek-bar{
  width: 90%;
  flex-grow: 1;
  margin: auto;
#player-middle-part-right{
  height: 100%;
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: space-around;
  position: relative;
#player-middle-part-timestamp{
  font-size: 0.75rem;
  color: var(--sub-label-color);
  position: relative;
  top: 4px;
/* player right part */
#player-right-part{
  height: 100%;
  width: 30%;
  /* min-width: 300px; */
  display: flex;
  align-items: center;
  justify-content: space-evenly;
  margin-top: 0.25rem;
#player-right-part-main-controls{
  height: 100%;
  display: flex;
```

```
align-items: center;
  justify-content: space-evenly;
#player-right-part-volume-controls{
  display: flex;
  align-items: center;
  justify-content: center;
#volume-seek-bar{
  width: calc(100% - 2.5rem);
  max-width: 150px;
/* player floating part */
#player-floating-part{
  position: absolute;
  right: 1.5rem;
  bottom: 0.7rem;
  height: 0;
  display: flex;
  flex-wrap: nowrap;
  align-items: end;
  z-index: 5;
  color: white;
  margin: 0;
  padding: 0;
.player-floating-part-item-overlay{
  height: 100%;
  width: 24%;
  flex-grow: 1;
  min-width: 300px;
  max-width: 350px;
  margin-left: 5px;
  border-radius: 0.25rem;
  box-shadow: var(--overlay-box-shadow);
  background-color: var(--floating-panels-bg-color);
  padding: 0 0.75rem 0.75rem;
  overflow: hidden;
.queue-lyrics-overlay-label{
  font-size: 1.1rem;
  color: white;
  padding: 0.5rem 0;
  font-weight: 500;
#floating-queue-overlay{
```

```
margin-right: 0.75rem;
.queue-overlay-content-item{
  width: 100%;
  display: flex;
  align-items: center;
  padding: 0.4rem;
  border-bottom: 1px solid var(--item-border-bottom-color);
  color: var(--sub-label-color);
  cursor: pointer;
.queue-overlay-content-item:hover{
  background-color: var(--hover-bg-color-light);
  color: rgba(255, 255, 255, 0.9);
/* floating queue overlay contents */
.queue-content-item-cover-column{
  width: 20%;
  display: inline-flex;
  align-items: center;
  position: relative;
.queue-content-item-name-and-artists-column{
  width: 65%;
  padding: 0 0.5rem;
  display: inline-flex;
  flex-direction: column;
  align-items: flex-start;
  justify-content: center;
.queue-content-item-name-row{
  width: 100%;
  font-size: 0.8rem;
  margin-bottom: 0.1rem;
  overflow: hidden;
  white-space: nowrap;
  text-overflow: ellipsis;
. queue\text{-}content\text{-}item\text{-}artists\text{-}row \{
  width: 100%;
  font-size: 0.7rem;
  font-weight: lighter;
  overflow: hidden;
  white-space: nowrap;
  text-overflow: ellipsis;
```

```
.queue-content-item-duration-column{
  width: 15%;
  font-size: 0.7rem;
  font-weight: 300;
}
/* floating queue overlay content item cover image */
.queue-content-item-cover-image{
  height: var(--floating-queue-content-item-cover-side);
  width: var(--floating-queue-content-item-cover-side);
  border-radius: 0.2rem;
.queue-content-item-cover-column .content-item-cover-overlay-icon-wrapper{
  height: var(--floating-queue-content-item-cover-side);
  width: var(--floating-queue-content-item-cover-side);
  border-radius: 0.2rem;
  position: absolute;
  top: 0;
  left: 0;
  display: flex;
  align-items: center;
  justify-content: center;
  z-index: 1;
  box-shadow: 0 0 0.5rem 0.35rem rgba(0, 0, 0, 0.5) inset;
  background-color: rgba(0, 0, 0, 0.5);
  cursor: pointer;
  opacity: 0;
opacity: 1;
#floating-queue-overlay-content-wrapper .content-item-cover-overlay-icon-wrapper{
  font-size: 0.65rem;
#floating-lyrics-overlay-content-wrapper{
  font-size: 0.7rem;
  line-height: 1.1rem;
/* EXTENDED PLAYER */
.player-extended-overlay{
  position: absolute;
  bottom: 0;
  right: 0;
```

```
z-index: 10;
  height: calc(100% - var(--header-height));
  width: 100%;
  background-color: var(--panels-bg-color);
  box-shadow: var(--panels-box-shadow);
  padding: 0.75rem 0.5rem 1rem;
  display: flex;
  color: white;
.player-extended-overlay-part{
  height: 100%;
  display: inline-block;
  border-radius: 0.25rem;
  margin-right: 0.5rem;
  box-shadow: var(--overlay-box-shadow);
  font-size: 0.8rem;
  overflow: hidden;
  padding: 0 0.5rem;
.player-extended-overlay-part:not(:last-child){
  margin-right: 0.5rem;
.player-extended-overlay-part-label{
  font-size: 1.2rem;
  color: white;
  padding: 0.5rem 0;
  font-weight: 500;
/* extended player queue */
#player-extended-queue{
  width: 30%;
#player-extended-queue-content-wrapper .queue-overlay-content-item{
  padding: 0.45rem;
#player-extended-queue-content-wrapper .queue-content-item-cover-column{
  min-width: var(--player-extended-queue-content-item-cover-side);
. queue-content-item-name-and-artists-column \{
  padding: 0 0.5rem;
#player-extended-queue-content-wrapper .queue-content-item-name-row{
  font-size: 0.88rem;
  margin-bottom: 0.12rem;
#player-extended-queue-content-wrapper .queue-content-item-artists-row{
```

```
font-size: 0.77rem;
#player-extended-queue-content-wrapper .queue-content-item-duration-column{
  font-size: 0.77rem;
}
/* floating queue overlay content item cover image */
#player-extended-queue-content-wrapper .queue-content-item-cover-image{
  height: var(--player-extended-queue-content-item-cover-side);
  width: var(--player-extended-queue-content-item-cover-side);
#player-extended-queue-content-wrapper .content-item-cover-overlay-icon-wrapper{
  height: var(--player-extended-queue-content-item-cover-side);
  width: var(--player-extended-queue-content-item-cover-side);
#player-extended-cover{
  width: 40%;
  display: flex;
  justify-content: center;
  align-items: center;
  padding: 1rem;
#player-extended-cover-image{
  object-fit: contain;
  max-height: 100%;
  max-width: 100%:
  border-radius: 0.25rem;
#player-extended-lyrics{
  width: 30%;
#player-extended-lyrics-content-wrapper{
  font-weight: 300;
  /* padding: 0.5rem; */
  color: var(--sub-label-color);
  line-height: 1.2rem;
.queue-lyrics-content-wrapper{
  width: 100%;
  height: calc(100% - 2.5rem);
  overflow-v: auto;
  margin-top: 0.25rem;
```

```
.lyrics-content-wrapper{
  font-weight: 300;
  padding: 0.5rem;
  color: var(--sub-label-color);
}
/* FLOATING NOTIFICATION */
.floating-notification{
  position: fixed;
  bottom: calc(var(--player-height) + 0.5rem);
  left: 50%;
  transform: translateX(-50%);
  z-index: 25;
  width: 15rem;
  height: 2.5rem;
  background-color: black;
  box-shadow: 0 0 10px 10px rgba(255, 255, 255, 0.2);
  border-radius: 0.25rem;
  padding: 0.5rem 0.75rem 0.5rem 1rem;
  display: flex;
  align-items: center;
  justify-content: left;
  font-size: 0.8rem;
  color: white:
  transition: all 0.3s ease-in-out;
.floating-notification-icon{
  height: 1rem;
  width: 1rem;
  font-size: 1rem;
  margin: 0.5rem 1rem 0.5rem 0;
/* GENERAL STYLE CLASSES */
.rotate-180{
  transform: rotate(180deg);
.shrunk-element{
  height: 0;
  width: 0;
  min-width: 0;
  max-width: 0;
```

```
margin: 0;
  padding: 0;
  border: none;
  box-shadow: none;
  overflow: hidden;
}
.invisible-element{
  visibility: hidden;
  opacity: 0;
.inactive-button{
  opacity: 0.5;
. small-button \{
  margin-top: 0.25rem;
  font-size: 0.75rem;
.queue-content-item-cover-column .opacity-1{
  opacity: 1;
.playlist-content-cover-column .opacity-1{
  opacity: 1;
.full-height{
  height: 100%;
.active-item{
  background-color: rgba(255, 255, 255, 0.15);
  color: rgba(255, 255, 255, 0.9);
. display\text{-}none \{
  display: none;
```

JAVASCRIPT:

```
"use strict":
// Global Variables
const body = document.getElementsByTagName("body")[0];
const body wallpaper overlay = document.getElementsByClassName("body-wallpaper-overlay")[0];
const root = document.documentElement;
// Nav
const nav = document.getElementsByTagName("nav")[0];
const nav_buttons = Array.from(document.getElementsByClassName("nav-button-container"));
const nav_home_button_container = document.getElementById("nav-home-button-container");
const nav explore button container = document.getElementById("nav-explore-button-container");
const nav_library_button_container = document.getElementById("nav-library-button-container");
const nav_library_content_items_wrapper = document.getElementsByClassName("nav-library-content-items-
wrapper")[0];
const nav original width = getComputedStyle(root).getPropertyValue("--nav-width");
const nav_original_min_width = getComputedStyle(root).getPropertyValue("--nav-min-width");
const nav_original_max_width = getComputedStyle(root).getPropertyValue("--nav-max-width");
const nav_shrinking_items = Array.from(document.getElementsByClassName("nav-shrinking-item"));
const nav button containers = Array.from(document.getElementsByClassName("nav-button-container"));
// Header
const search bar = document.getElementById("search-bar");
const search suggestions wrapper = document.getElementById("search-suggestions-wrapper");
const profile button container = document.getElementById("profile-button-container");
const profile dropdown overlay = document.getElementsByClassName("profile-dropdown-overlay")[0];
const profile_dropdown_overlay_login_status = document.getElementById("profile-dropdown-overlay-login-
status"):
const profile_dropdown_overlay_login_logout_button = document.getElementById("profile-dropdown-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay-overlay
login-logout-button");
// Login Popup
const login_popup = document.getElementsByClassName("login-popup")[0];
const login popup fade bg = document.getElementsByClassName("login-popup-fade-bg")[0];
const login popup login tab button = document.getElementById("login-popup-login-tab-button");
const login_popup_signup_tab_button = document.getElementById("login-popup-signup-tab-button");
const login_popup_login_tab = document.getElementsByClassName("login-popup-login-tab")[0];
const login_popup_signup_tab = document.getElementsByClassName("login-popup-signup-tab")[0];
const login_popup_close_button = document.getElementById("login-popup-close-button");
9]{1,3}\.[0-9]{1,3}\]|(([a-zA-Z\-0-9]+\.)+[a-zA-Z]{2,}))$/;
```

```
const login_popup_submit_login_button = document.getElementById("login-popup-submit-login-button");
const login_popup_submit_signup_button = document.getElementById("login-popup-submit-signup-button");
// Content Window
const right window = document.getElementsBvClassName("right-window")[0]:
const content window = document.getElementById("content-window");
// Player
const player = document.getElementsByClassName("player")[0];
const player song cover image = document.getElementById("player-song-cover-image");
const player_song_name = document.getElementById("player-song-name");
const player song artist = document.getElementById("player-song-artist");
const player like button container = document.getElementById("player-left-part-like-button-container");
const player like button icon = player like button container.firstElementChild;
const player_shuffle_button_container = document.getElementById("shuffle-button-container");
const player_shuffle_button_icon = player_shuffle_button_container.firstElementChild;
const player_previous_song_button_container = document.getElementById("previous-song-button-container");
const player play pause button container = document.getElementById("play-pause-button-container");
const player play pause button icon = player play pause button container.firstElementChild;
const player next song button container = document.getElementById("next-song-button-container");
const player repeat button container = document.getElementById("repeat-button-container");
const player_repeat_button_icon_one = player_repeat_button_container.firstElementChild;
const player_repeat_button_icon = player_repeat_button_container.lastElementChild;
const player_options_button_container = document.getElementById("player-options-button-container");
const player audio controls = document.getElementById("player-audio-controls");
const player audio seek bar = document.getElementById("player-seek-bar");
const player_audio_current_duration_label = document.getElementById("audio-current-duration");
const player audio total duration label = document.getElementById("audio-total-duration");
const player_queue_button_container = document.getElementById("queue-button-container");
const player queue button icon = player queue button container.firstElementChild;
const player_lyrics_button_container = document.getElementById("lyrics-button-container");
const player_lyrics_button_icon = player_lyrics_button_container.firstElementChild;
const player_volume_seek_bar = document.getElementById("volume-seek-bar");
const player_volume_button_container = document.getElementById("volume-button-container");
const player volume button icon = player volume button container.firstElementChild;
const player extend button container = document.getElementById("player-extend-button-container");
const player extend button icon = player extend button container.firstElementChild;
```

```
const player_floating_part = document.getElementById("player-floating-part");
const player_floating_part_full_height = "calc(100% - var(--header-height) - 12rem)"
const floating_queue_overlay = document.getElementById("floating-queue-overlay");
const floating queue overlay content wrapper = floating queue overlay.getElementsByClassName("queue-
lyrics-content-wrapper")[0]:
const floating lyrics overlay = document.getElementById("floating-lyrics-overlay");
const floating lyrics overlay content wrapper = floating lyrics overlay.getElementsByClassName("queue-
lyrics-content-wrapper")[0];
const player_extended_overlay = document.getElementsByClassName("player-extended-overlay")[0];
const player extended queue content wrapper = document.getElementById("player-extended-queue-content-
wrapper");
const player extended cover = document.getElementById("player-extended-cover");
player_extended_cover.innerHTML = `<img id="player-extended-cover-image" src="">`;
const player extended cover image = document.getElementById("player-extended-cover-image");
const player_extended_lyrics_content_wrapper = document.getElementById("player-extended-lyrics-content-
wrapper");
player_audio_controls.volume = player_volume_seek_bar.value / 100;
// Content Objects
import songs obj from "./media/obj jsons/songs.json" assert {type: 'json'};
import songs root_id_mapping_obj from "./media/obj_jsons/songs_root_id_mapping.json" assert {type: 'json'};
import playlists_obj from "./media/obj_jsons/playlists.json" assert {type: 'json'};
import playlists_root_id_mapping_obj from "./media/obj_jsons/playlists_root_id_mapping.json" assert {type:
'ison'};
import tabs_obj from "./media/manual_obj_jsons/tabs.json" assert {type: 'json'};
import categories_obj from "./media/manual_obj_jsons/categories.json" assert {type: 'json'};
var first_play = true;
var current content window content type = "tab";
var current_content_window_content_tag_id = "home";
var queue_song_id_list = [];
var queue_played_song_indexes_list = [];
var queue_current_song_index;
var shuffle = sessionStorage.getItem("shuffle") ? JSON.parse(sessionStorage.getItem("shuffle")) : false;
var repeat = sessionStorage.getItem("repeat") ? JSON.parse(sessionStorage.getItem("repeat")) : 0;
var current_song_id;
var users_obj = localStorage.getItem("users_obj") ? JSON.parse(localStorage.getItem("users_obj")) : {};
               current user id
                                                      sessionStorage.getItem("current_user_id")
var
JSON.parse(sessionStorage.getItem("current user id")): null;
```

```
localStorage.getItem("custom_playlists_obj")
                                                                                                                 ?
             custom_playlists_obj
var
JSON.parse(localStorage.getItem("custom_playlists_obj")) : {};
                                                                                                                  ?
            custom_playlist_ids_list
                                                       localStorage.getItem("custom_playlist_ids_list")
JSON.parse(localStorage.getItem("custom_playlist_ids_list")):[];
var liked song ids list = \Pi:
var saved playlist ids list = [];
var recently_played_song_ids_list = [];
var recently_played_playlist_ids_list = [];
if (shuffle){
  player_shuffle_button_icon.classList.remove("inactive-button");
  player_repeat_button_icon.classList.remove("inactive-button");
if (repeat == 2)
  player_repeat_button_icon_one.classList.remove("shrunk-element");
  player_repeat_button_icon.classList.add("small-button");
// Functions
// function scrollIntoViewIfNeeded(target) {
    if \ (target.getBoundingClientRect().bottom > target.parentElement.innerHeight) \ \{ \\
       target.scrollIntoView(false);
//
//
    if (target.getBoundingClientRect().top < 0) {
       target.scrollIntoView();
//
//
// }
// function scroll_to_item(item) {
    let item container = item.getBoundingClientRect();
//
    // scroll top of item into view if it is above visible area of content wrapper
//
    if (item_container.scrollTop > item.offsetTop) {
//
       console.log("scrolling for top");
//
       console.log("Parent ScrollTop: " + item_container.scrollTop);
       console.log("Parent ClientHeight: " + item_container.clientHeight);
//
       console.log("Item OffsetTop: " + item.offsetTop);
//
       console.log("Item ScrollHeight: " + item.scrollHeight);
//
       console.log(" ");
//
       item.scrollIntoView();
//
//
    // scroll bottom of item into view if it is under visible area of content wrapper
    if (item_container.scrollTop + item_container.clientHeight < item.offsetTop + item.scrollHeight) {
```

```
//
      console.log("scrolling for bottom");
      console.log("Parent ScrollTop: " + item_container.scrollTop);
//
      console.log("Parent ClientHeight: " + item_container.clientHeight);
//
//
      console.log("Item OffsetTop: " + item.offsetTop);
//
      console.log("Item ScrollHeight: " + item.scrollHeight);
//
      console.log(" "):
//
      item.scrollIntoView(false):
// }
// }
function shuffle_array(array) {
  let returnArray = [...array], currentIndex = returnArray.length, randomIndex;
  // While there remain elements to shuffle.
  while (currentIndex != 0) {
   // Pick a remaining element.
   randomIndex = Math.floor(Math.random() * currentIndex);
   currentIndex--;
   // And swap it with the current element.
   [returnArray[currentIndex],
                                     returnArray[randomIndex]]
                                                                                [returnArray[randomIndex],
returnArray[currentIndex]];
  }
  return returnArray;
function return duration string(duration){
  return new Date(duration * 1000).toISOString().slice(14, 19);
function update_audio_seek_bar_and_time_stamp(){
  // updating seek bar current position and max value
  player_audio_seek_bar.value = player_audio_controls.currentTime;
  player_audio_seek_bar.max = player_audio_controls.duration;
  // updating current timestamp
  player_audio_current_duration_label.innerText = return_duration_string(player_audio_controls.currentTime);
function render_nav_library_content(){
  // clearing nav library content
  nav_library_content_items_wrapper.innerHTML =
     `History
    Liked Songs`;
  // creating nav library content
  for (let playlist index = 0; playlist index < Object.keys(playlists obj).length; playlist index++){
    let playlist id = Number(Object.keys(playlists obj)[playlist index]);
    let playlist_name = playlists_obj[playlist_id].playlist_name;
```

```
let nav_library_content_item = document.createElement("p");
    nav_library_content_item.className = "nav-library-content-item";
    nav_library_content_item.innerText = playlist_name;
    nav_library_content_items_wrapper.appendChild(nav_library_content_item);
    nav library content item.onclick = (event) => {
       event.stopPropagation();
       render_playlist(playlist_id);
    }
  }
}
function show_hide_search_suggestions(show = true){
  if (show){
    search_suggestions_wrapper.classList.remove("shrunk-element");
  }
  else{
    search_suggestions_wrapper.classList.add("shrunk-element");
function update_search_suggestions(){
  search_suggestions_wrapper.innerHTML = "";
  let search query = search bar.value.toLowerCase();
  for (let song_id in songs_obj){
    if (search_suggestions_wrapper.childElementCount >= 5) return;
    let song_obj = songs_obj[song_id];
    let query_in_song_name = song_obj.song_name.toLowerCase().includes(search_query);
    let query_in_artist_names = song_obj.song_artist_names.filter(
       artist_name => artist_name.split(" ").filter(
         word => word.toLowerCase().startsWith(search_query)
         ).length
       ).length;
    if (query_in_song_name || query_in_artist_names){
       let search_suggestion = document.createElement("span");
       search_suggestions_wrapper.appendChild(search_suggestion);
       search_suggestion.className = "search-suggestion";
       let search suggestion text = document.createElement("p");
       search_suggestion_text.className = "search-suggestion-text";
       search_suggestion_text.innerHTML = song_obj.song_artist_names + " - " + song_obj.song_name;
```

```
search_suggestion.appendChild(search_suggestion_text);
       let search_icon = document.createElement("i");
       search_icon.classList = "fa-solid fa-magnifying-glass search-bar-icon";
       search suggestion.append(search icon);
       search suggestion.onclick = (event) => {
         event.stopPropagation();
         play_song(song_id);
         show_hide_search_suggestions(false);
     }
  while (search_suggestions_wrapper.childElementCount < 5){
    let search_suggestion = document.createElement("span");
    search_suggestions_wrapper.appendChild(search_suggestion);
    search_suggestion.className = "search-suggestion";
    let search_suggestion_text = document.createElement("p");
    search_suggestion_text.className = "search-suggestion-text";
    search_suggestion_text.innerHTML = `Search History ${search_suggestions_wrapper.childElementCount}`;
    search suggestion.appendChild(search suggestion text);
    let search icon = document.createElement("i");
    search_icon.classList = "fa-solid fa-magnifying-glass search-bar-icon";
    search_suggestion.append(search_icon);
    search_suggestion.onclick = (event) => {
       event.stopPropagation();
       play_song(song_id);
  }
function render_content_window(tab_tag, only_update_content = false){
  current_content_window_content_type = "tab";
  current_content_window_content_tag_id = tab_tag;
  if (! only_update_content){
    toggle_extended_player(false);
                                      // to close extended player when tab clicked with it open
    content_window.scrollTo(0, 0);
  content_window.innerHTML = "";
  let tab_obj = tabs_obj[tab_tag];
```

}

```
let tab_category_ids = tab_obj.tab_category_ids;
  if (! current_user_id && tab_tag == "library") {
    tab category ids = Object.keys(categories obj).slice(12, 18);
  tab category ids
                                      tab category ids.concat(Object.keys(categories obj).slice(12,
                                                                                                            18-
tab_category_ids.length).map(category_id => Number(category_id)));
  for (let category_index in tab_category_ids){
    let category_id = tab_category_ids[category_index];
    // getting category object
    let category_obj = categories_obj[category_id];
    let category_tag = category_obj.category_tag;
    let category_name = category_obj.category_name;
    let category_items_type = category_obj.category_items_type;
    let category_item_ids = category_obj.category_item_ids;
    if (tab_tag == "library" && category_tag == "recents") category_name = "History";
    if (!current user id && ["recents", "liked", "saved playlists"].includes(category tag)) continue;
    if (category tag == "recents"){
       if (recently_played_song_ids_list.length == 0) continue;
       category_item_ids = recently_played_song_ids_list;
    if (category_tag == "liked"){
       if (liked_song_ids_list.length == 0) continue;
       category_item_ids = liked_song_ids_list;
    if (category_tag == "saved_playlists"){
       if (saved_playlist_ids_list.length == 0) continue;
       category_item_ids = saved_playlist_ids_list;
     }
    // creating content window category
    let content_window_category = document.createElement("div");
    content window category.id = category tag + "-category";
    content window category.classList.add("content-window-category");
    content_window.appendChild(content_window_category);
```

```
// creating scroll buttons
    let content_window_category_scroll_left_button = document.createElement("button");
    content_window_category_scroll_left_button.classList.add("content-window-category-scroll-button");
    content_window_category_scroll_left_button.classList.add("content-window-category-scroll-left-button");
    content window category scroll left button.classList.add("invisible-element"):
    content window category scroll left button.innerHTML = "<i class='fa-solid fa-chevron-left'></i>":
    content window category.appendChild(content window category scroll left button);
    let content_window_category_scroll_right_button = document.createElement("button");
    content_window_category_scroll_right_button.classList.add("content-window-category-scroll-button");
    content_window_category_scroll_right_button.classList.add("content-window-category-scroll-right-
button"):
    content_window_category_scroll_right_button.innerHTML = "<i class='fa-solid fa-chevron-right'></i>";
    content window category.appendChild(content window category scroll right button);
    // creating category label and items wrapper
    let content window category label = document.createElement("p");
    content_window_category_label.classList.add("content-window-category-label");
    content_window_category_label.innerText = category_name;
    content_window_category.appendChild(content_window_category_label);
    let content_window_category_items_wrapper = document.createElement("div");
    content window category items wrapper.classList.add("content-window-category-items-wrapper");
    content window category.appendChild(content window category items wrapper);
    // adding scroll buttons event listeners
    content window category scroll left button.onclick = () => {
       let scroll_amount = (Math.floor(content_window_category_items_wrapper.clientWidth/200) - 1) * 200;
       content_window_category_items_wrapper.scrollLeft -= scroll_amount;
    };
    content_window_category_scroll_right_button.onclick = () => {
       let scroll amount = (Math.floor(content window category items wrapper.clientWidth/200) - 1) * 200;
       content_window_category_items_wrapper.scrollLeft += scroll_amount;
    };
    // adding scroll event listener to category items wrapper to show/hide scroll buttons
    content_window_category_items_wrapper.onscroll = () => {
       if (content_window_category_items_wrapper.scrollLeft == 0){
         content_window_category_scroll_left_button.classList.add("invisible-element");
       else{
         content_window_category_scroll_left_button.classList.remove("invisible-element");
                               (content window category items wrapper.scrollLeft
       if
content window category items wrapper.scrollWidth
content window category items wrapper.clientWidth){
         content window category scroll right button.classList.add("invisible-element");
```

```
else{
         content_window_category_scroll_right_button.classList.remove("invisible-element");
       }
     }
    // adding items to category items wrapper
    for (let category_item_index in category_item_ids){
       let category_item_id = category_item_ids[category_item_index];
       let content_window_category_item = document.createElement("div");
       content_window_category_item.classList.add("content-window-category-item");
       content window category items wrapper.appendChild(content window category item);
       let content_window_category_item_cover_wrapper = document.createElement("div");
       content_window_category_item_cover_wrapper.classList.add("content-window-category-item-cover-
wrapper");
       content_window_category_item.appendChild(content_window_category_item_cover_wrapper);
       let category_item_obj, content_window_category_mainlabel, content_window_category_sublabel;
       let content window category item cover;
       if (category items type == "song"){
         category item obj = songs obj[category item id];
         content window category mainlabel = category item obj.song name;
         content_window_category_sublabel = category_item_obj.song_artist_names;
         // adding image to cover if category item is a song
         content_window_category_item_cover = document.createElement("img");
         content_window_category_item_cover.src
                                                                             "./media/covers/"
songs_obj[category_item_id].song_file_name_root + ".jpg";
         content_window_category_item_cover.alt = category_tag + "_item_cover";
       else{
         category_item_obj = playlists_obj[category_item_id];
         content_window_category_mainlabel = category_item_obj.playlist_name;
         content_window_category_sublabel = category_item_obj.playlist_song_artist_names.join(", ");
         // adding collage container div to cover if category item is a playlist and has 4 or more songs
         if (category_item_obj.playlist_song_ids.length >= 4){
           content_window_category_item_cover = document.createElement("div");
           for (let i = 0; i < 4; i++)
              let content window category item cover collage image = document.createElement("img");
              content window category item cover collage image.src
                                                                                   "./media/covers/"
songs obj[category item obj.playlist song ids[i]].song file name root + ".ipg";
```

```
content_window_category_item_cover_collage_image.classList.add("content-window-category-
item-cover-collage-image");
             content_window_category_item_cover_collage_image.alt = category_tag + "_item_cover";
content window category item cover.appendChild(content window category item cover collage image);
        // otherwise adding single image to cover
        else{
           content_window_category_item_cover = document.createElement("img");
           content_window_category_item_cover.src
                                                                        "./media/covers/"
songs_obj[category_item_obj.playlist_song_ids[0]].song_file_name_root + ".jpg";
           content_window_category_item_cover.alt = category_tag + "_item_cover";
      content window category item cover.classList.add("content-window-category-item-cover");
      content_window_category_item_cover_wrapper.appendChild(content_window_category_item_cover);
      let content_window_category_item_cover_overlay = document.createElement("div");
      overlay");
content window category item cover wrapper.appendChild(content window category item cover overlay);
      let content window category item cover overlay icon wrapper = document.createElement("div");
      content window category item cover overlay icon wrapper.classList.add("standard-button");
      content_window_category_item_cover_overlay_icon_wrapper.classList.add("content-window-category-
item-cover-overlay-icon-wrapper");
content_window_category_item_cover_overlay.appendChild(content_window_category_item_cover_overlay_ic
on_wrapper);
      let content_window_category_overlay_wrapper_icon = document.createElement("i");
      content window category overlay wrapper icon.classList.add("fa-solid", "fa-play");
content_window_category_item_cover_overlay_icon_wrapper.appendChild(content_window_category_overlay_
wrapper_icon);
      let content_window_category_item_labels = document.createElement("div");
      content_window_category_item_labels.classList.add("content-window-category-item-labels");
      content_window_category_item.appendChild(content_window_category_item_labels);
      let content window category item mainlabel = document.createElement("p");
      content window category item mainlabel.classList.add("content-window-category-item-mainlabel");
      content window category item mainlabel.innerText = content window category mainlabel;
      content window category item labels.appendChild(content window category item mainlabel);
```

```
let content_window_category_item_sublabel = document.createElement("p");
       content_window_category_item_sublabel.classList.add("content-window-category-item-sublabel");
       content_window_category_item_sublabel.innerText = content_window_category_sublabel;
       content window category item labels.appendChild(content window category item sublabel);
       // add event listener to play that song or render and play that playlist
       if (category_items_type == "song"){
         content_window_category_item.onclick = () => play_song(category_item_id);
       else{
         content_window_category_item.onclick = () => render_playlist(category_item_id);
         content_window_category_item_cover_overlay_icon_wrapper.onclick = () => {
            play_song(category_item_obj.playlist_song_ids[0], category_item_id);
       }
     }
  }
  for (let nav_button_index in nav_buttons){
    let nav_button = nav_buttons[nav_button_index];
    nav_button.classList.remove("active-item");
    if (nav button.id == `nav-${tab tag}-button-container`){
       nav button.classList.add("active-item");
     }
  }
}
function render_playlist(playlist_id){
  current_content_window_content_type = "playlist";
  current_content_window_content_tag_id = playlist_id;
  playlist_id = Number(playlist_id);
  content_window.innerHTML = "";
  let playlist_obj = playlists_obj[playlist_id];
  let playlist_name = playlist_obj.playlist_name;
  let playlist_song_artist_names = playlist_obj.playlist_song_artist_names.join(", ");
  let playlist_song_ids = playlist_obj.playlist_song_ids;
  // playlist description
  let playlist_description = document.createElement("div");
  playlist description.id = "playlist-description";
  content_window.appendChild(playlist_description);
```

```
// playlist descripton cover
  let playlist_description_cover_wrapper = document.createElement("div");
  playlist_description_cover_wrapper.id = "playlist-description-cover-wrapper";
  playlist_description.appendChild(playlist_description_cover_wrapper);
  let playlist description cover;
  // adding collage container div to cover if category item is a playlist and has 4 or more songs
  if (playlist song ids.length >= 4){
     playlist_description_cover = document.createElement("div");
     for (let i = 0; i < 4; i++)
       let playlist_description_cover_collage_image = document.createElement("img");
       playlist_description_cover_collage_image.src
                                                                                 "./media/covers/"
songs obj[playlist song ids[i]].song file name root + ".jpg";
       playlist description cover collage image.classList.add("playlist-description-cover-collage-image");
       playlist_description_cover_collage_image.alt = "playlist_cover";
       playlist description cover.appendChild(playlist description cover collage image);
     }
  // otherwise adding single image to cover
     playlist_description_cover = document.createElement("img");
     playlist description cover.src = "./media/covers/" + songs obj[playlist song ids[0]].song file name root +
".jpg";
     playlist_description_cover.alt = "playlist cover";
  playlist_description_cover.id = "playlist-description-cover";
  playlist_description_cover_wrapper.appendChild(playlist_description_cover);
  // playlist description info and buttons
  let playlist_description_info_and_buttons = document.createElement("div");
  playlist_description_info_and_buttons.id = "playlist-description-info-and-buttons";
  playlist_description.appendChild(playlist_description_info_and_buttons);
  // playlist description info
  let playlist_description_info = document.createElement("div");
  playlist_description_info.id = "playlist-description-info";
  playlist_description_info_and_buttons.appendChild(playlist_description_info);
  let playlist_info_title = document.createElement("p");
  playlist_info_title.id = "playlist-info-title";
  playlist_info_title.innerText = playlist_name;
  playlist description info.appendChild(playlist info title);
  let playlist info artists = document.createElement("p");
  playlist info artists.id = "playlist-info-artists";
```

```
playlist_info_artists.innerText = playlist_song_artist_names;
playlist_description_info.appendChild(playlist_info_artists);
let playlist_info_count_and_duration = document.createElement("div");
playlist info count and duration.id = "playlist-info-count-and-duration":
playlist description info.appendChild(playlist info count and duration);
let playlist_info_song_count = document.createElement("p");
playlist_info_song_count.id = "playlist-info-song-count";
playlist_info_count_and_duration.appendChild(playlist_info_song_count);
let playlist info song count number = document.createElement("span");
playlist_info_song_count_number.id = "playlist-info-song-count-number";
playlist info song count number.innerText = playlist song ids.length;
playlist info song count.appendChild(playlist info song count number);
let playlist info song count label = document.createElement("span");
playlist_info_song_count_label.id = "playlist-info-song-count-label";
playlist_info_song_count_label.innerHTML = " songs       ";
playlist_info_song_count.appendChild(playlist_info_song_count_label);
let playlist_info_duration = document.createElement("p");
playlist info duration.id = "playlist-info-duration";
playlist info count and duration.appendChild(playlist info duration);
let playlist info duration sum = 0:
let playlist info duration number = document.createElement("span");
playlist_info_duration_number.id = "playlist-info-duration-number";
playlist_info_duration.appendChild(playlist_info_duration_number);
let playlist_info_duration_label = document.createElement("span");
playlist info duration label.id = "playlist-info-duration-label";
playlist info duration label.innerHTML = " minutes";
playlist_info_duration.appendChild(playlist_info_duration_label);
// playlist description buttons
let playlist_description_buttons = document.createElement("div");
playlist_description_buttons.id = "playlist-description-buttons";
playlist_description_info_and_buttons.appendChild(playlist_description_buttons);
// play button
let playlist_description_play_button = document.createElement("button");
playlist description play button.id = "playlist-description-play-button";
playlist_description_play_button.classList.add("playlist-description-button");
playlist_description_play_button.title = "Play";
playlist description buttons.appendChild(playlist description play button);
```

```
let playlist_description_play_button_icon = document.createElement("i");
playlist_description_play_button_icon.classList.add("fa-solid");
playlist_description_play_button_icon.classList.add("fa-play");
playlist description play button icon.classList.add("playlist-description-button-icon");
playlist description play button.appendChild(playlist description play button icon);
let playlist_description_play_button_label = document.createElement("p");
playlist description play button label.classList.add("playlist-description-button-label");
playlist_description_play_button_label.innerText = "Play";
playlist_description_play_button.appendChild(playlist_description_play_button_label);
// shuffle play button
let playlist description shuffle play button = document.createElement("button");
playlist_description_shuffle_play_button.id = "playlist-description-shuffle-play-button";
playlist_description_shuffle_play_button.classList.add("playlist-description-button");
playlist_description_shuffle_play_button.title = "Shuffle Play";
playlist_description_buttons.appendChild(playlist_description_shuffle_play_button);
let playlist_description_shuffle_play_button_icon = document.createElement("i");
playlist_description_shuffle_play_button_icon.classList.add("fa-solid");
playlist_description_shuffle_play_button_icon.classList.add("fa-shuffle");
playlist description shuffle play button icon.classList.add("playlist-description-button-icon");
playlist description shuffle play button.appendChild(playlist description shuffle play button icon);
let playlist description shuffle play button label = document.createElement("p");
playlist description shuffle play button label.classList.add("playlist-description-button-label");
playlist_description_shuffle_play_button_label.innerText = "Shuffle Play";
playlist_description_shuffle_play_button.appendChild(playlist_description_shuffle_play_button_label);
// add to library button
let playlist_description_add_to_library_button = document.createElement("button");
playlist_description_add_to_library_button.id = "playlist-description-add-to-library-button";
playlist_description_add_to_library_button.classList.add("playlist-description-button");
playlist description add to library button.title = "Add to Library";
playlist_description_buttons.appendChild(playlist_description_add_to_library_button);
let playlist_description_add_to_library_button_icon = document.createElement("i");
playlist_description_add_to_library_button_icon.classList.add("fa-solid");
playlist_description_add_to_library_button_icon.classList.add("fa-plus");
playlist_description_add_to_library_button_icon.classList.add("playlist-description-button-icon");
playlist_description_add_to_library_button.appendChild(playlist_description_add_to_library_button_icon);
let playlist description add to library button label = document.createElement("p");
playlist description add to library button label.classList.add("playlist-description-button-label");
playlist_description_add_to_library_button_label.innerText = "Add to Library";
playlist description add to library button.appendChild(playlist description add to library button label);
```

```
if (saved_playlist_ids_list.includes(playlist_id)) {
     playlist_description_add_to_library_button.title = "Remove from Library";
    playlist_description_add_to_library_button_icon.classList.remove("fa-plus");
    playlist description add to library button icon.classList.add("fa-square-minus");
    playlist description add to library button label.innerText = "Remove from Library";
  // more options button
  let playlist_description_add_to_queue_button = document.createElement("button");
  playlist_description_add_to_queue_button.id = "playlist-description-play-button";
  playlist\_description\_add\_to\_queue\_button.classList.add("playlist-description-button");
  playlist_description_add_to_queue_button.title = "Add to Queue";
  playlist description buttons.appendChild(playlist description add to queue button);
  let playlist_description_add_to_queue_button_icon = document.createElement("i");
  playlist description add to queue button icon.classList.add("fa-solid");
  playlist_description_add_to_queue_button_icon.classList.add("fa-list-check");
  playlist_description_add_to_queue_button_icon.classList.add("playlist-description-button-icon");
  playlist_description_add_to_queue_button.appendChild(playlist_description_add_to_queue_button_icon);
  let playlist_description_add_to_queue_button_label = document.createElement("p");
  playlist description add to queue button label.classList.add("playlist-description-button-label");
  playlist description add to queue button label.innerText = "Add to Queue";
  playlist description add to queue button.appendChild(playlist description add to queue button label);
  // playlist buttons event listeners
  playlist_description_play_button.onclick = () => play_song(playlist_song_ids[0], playlist_id);
  playlist_description_shuffle_play_button.onclick
play_song(playlist_song_ids[Math.floor(Math.random() * playlist_song_ids.length)], playlist_id, false, true);
  playlist_description_add_to_library_button.onclick = () => add_remove_playlist_to_library(playlist_id);
  playlist description add to queue button.onclick = () => {
    queue_song_id_list = queue_song_id_list.concat(playlist_song_ids);
    render_queue();
  };
  // playlist contents
  let playlist_content = document.createElement("div");
  playlist_content.id = "playlist-content";
  content window.appendChild(playlist content);
  // playlist contents header
  let playlist content header = document.createElement("div");
```

```
playlist_content_header.id = "playlist-content-header";
playlist_content.appendChild(playlist_content_header);
let playlist_content_header_cover_space = document.createElement("div");
playlist content header cover space.classList.add("playlist-content-cover-column");
playlist content header.appendChild(playlist content header cover space);
let playlist content header name = document.createElement("p");
playlist content header name.classList.add("playlist-content-name-column");
playlist_content_header_name.innerText = "Name";
playlist_content_header.appendChild(playlist_content_header_name);
let playlist_content_header_artists = document.createElement("p");
playlist content header artists.classList.add("playlist-content-artists-column");
playlist content header artists.innerText = "Artists";
playlist_content_header.appendChild(playlist_content_header_artists);
let playlist content header duration = document.createElement("p");
playlist_content_header_duration.classList.add("playlist-content-duration-column");
playlist_content_header_duration.innerText = "Duration";
playlist_content_header.appendChild(playlist_content_header_duration);
let playlist content header options = document.createElement("p");
playlist content header options.classList.add("playlist-content-options-column");
playlist content header options.innerText = "Options";
playlist content header.appendChild(playlist content header options);
let header hr line = document.createElement("hr");
playlist_content.appendChild(header_hr_line);
// playlist contents body
let playlist_content_items = document.createElement("div");
playlist_content_items.id = "playlist-content-items";
playlist_content.appendChild(playlist_content_items);
// playlist contents items
for (let song_index in playlist_song_ids){
  // getting song object and info
  let song_id = Number(playlist_song_ids[song_index]);
  let song_obj = songs_obj[song_id];
  let song_name = song_obj.song_name;
  let song artist names = song obj.song artist names;
  let song duration = song obj.song duration;
  // playlist item
```

```
let playlist_content_item = document.createElement("div");
     playlist_content_item.classList.add("playlist-content-item");
    playlist_content_item.id = "playlist-content-item-song-" + song_id;
    playlist_content_items.appendChild(playlist_content_item);
    // playlist item cover
    let playlist_content_item_cover = document.createElement("div");
     playlist content_item_cover.classList.add("playlist-content-cover-column");
    playlist content item cover.title = "Play";
    playlist_content_item.appendChild(playlist_content_item_cover);
    let playlist_content_item_cover_image = document.createElement("img");
     playlist_content_item_cover_image.classList.add("playlist-content-item-cover-image");
    playlist content item cover image.src = "./media/covers/" + songs obi[song id].song file name root +
".jpg";
    playlist_content_item_cover_image.alt = "playlist_item_cover";
    playlist content item cover.appendChild(playlist content item cover image);
    let playlist_content_item_cover_image_overlay_icon_wrapper = document.createElement("div");
    playlist_content_item_cover_image_overlay_icon_wrapper.classList.add("content-item-cover-overlay-icon-
wrapper");
    playlist_content_item_cover.appendChild(playlist_content_item_cover_image_overlay_icon_wrapper);
    let playlist content item cover image overlay icon = document.createElement("i");
     playlist content item cover image overlay icon.classList.add("fa-solid");
    playlist content item cover image overlay icon.classList.add("fa-play"):
    playlist_content_item_cover_image_overlay_icon.classList.add("playlist-content-item-cover-image-
overlay-icon");
playlist_content_item_cover_image_overlay_icon_wrapper.appendChild(playlist_content_item_cover_image_ov
erlay_icon);
    // playlist item name
     let playlist_content_item_name = document.createElement("p");
     playlist content item name.classList.add("playlist-content-name-column");
     playlist_content_item_name.innerText = song name;
    playlist_content_item_name.title = song_name;
    playlist_content_item.appendChild(playlist_content_item_name);
    // playlist item artists
    let playlist_content_item_artists = document.createElement("p");
     playlist_content_item_artists.classList.add("playlist-content-artists-column");
     playlist_content_item_artists.innerText = song_artist_names;
    playlist content item artists.title = song artist names;
    playlist content item.appendChild(playlist content item artists);
    // playlist item duration
```

```
let playlist_content_item_duration = document.createElement("p");
    playlist_content_item_duration.classList.add("playlist-content-duration-column");
    playlist_content_item_duration.innerText = return_duration_string(song_duration);
    playlist_info_duration_sum += song_duration;
    playlist content item.appendChild(playlist content item duration);
    // playlist item options
    let playlist content item options = document.createElement("div");
    playlist_content_item_options.classList.add("playlist-content-options-column");
    playlist_content_item.appendChild(playlist_content_item_options);
    // playlist item option like button
    let playlist content item like button = document.createElement("button");
    playlist content item like button.classList.add("playlist-content-item-like-button");
    playlist_content_item_like_button.classList.add("standard-button");
    playlist content item options.appendChild(playlist content item like button);
    let playlist_content_item_like_button_icon = document.createElement("i");
    if (liked_song_ids_list.includes(song_id)){
       playlist_content_item_like_button_icon.classList.add("fa-solid");
     } else {
       playlist content item like button icon.classList.add("fa-regular");
    playlist content item like button icon.classList.add("fa-heart");
    playlist content item like button icon.id = "playlist-content-item-like-button-icon-song-" + song id;
    playlist_content_item_like_button.appendChild(playlist_content_item_like_button_icon);
    playlist_content_item_like_button.onclick = () => {
       like_unlike_song(song_id);
    // playlist item option options button
    let playlist_content_item_options_button = document.createElement("button");
    playlist content item options button.classList.add("standard-button");
    playlist_content_item_options.appendChild(playlist_content_item_options_button);
    let playlist_content_item_options_button_icon = document.createElement("i");
    playlist_content_item_options_button_icon.classList.add("fa-solid");
    playlist_content_item_options_button_icon.classList.add("fa-ellipsis-vertical");
    playlist_content_item_options_button.appendChild(playlist_content_item_options_button_icon);
    // highlighting current playing song in playlist contents
    // highlight playing item alone doesn't do it because category item overlay icon wrapper event calls
play song before the category item overlay event that renders playlist
    // so the play_song function is called before the playlist is rendered and the current song is not highlighted
    if (song id == current song id){
```

```
playlist_content_item.classList.add("active-item");
       playlist_content_item.classList.add("active-item");
       playlist_content_item_cover_image_overlay_icon.classList.remove("fa-play");
       playlist_content_item_cover_image_overlay_icon.classList.add("fa-volume-high");
       playlist content item cover image overlay icon wrapper.classList.add("opacity-1");
     // add event listeners to play that song
     playlist_content_item_cover.addEventListener("click", function(){
       play_song(song_id);
     playlist_content_item_name.addEventListener("click", function(){
       play_song(song_id);
     });
  }
  playlist_info_duration_number.innerText = Math.ceil(playlist_info_duration_sum / 60);
  content_window.scrollTo(0, 0);
  let nav_last_active_tab = nav.querySelector(".active-item");
  if (nav_last_active_tab) nav_last_active_tab.classList.remove("active-item");
function add_remove_playlist_to_library(playlist_id){
  if (!current user id){
     make_floating_notification("not_logged_in", false);
     return:
  playlist_id = Number(playlist_id);
  if (saved_playlist_ids_list.includes(playlist_id)){
     saved_playlist_ids_list = saved_playlist_ids_list.filter(id => id != playlist_id);
     make_floating_notification("remove_playlist_from_library");
  } else {
     saved playlist ids list.unshift(playlist id);
     make_floating_notification("add_playlist_to_library");
  update_user_content();
function update_queue(item_id, is_song = false, append_queue = false, shuffle_current_queue = false){
  item_id = Number(item_id);
  // is_song == true means item_id is a song id
  // replacing queue with the new song's playlist
  if (is song) {
     if ( ! queue_song_id_list.includes(item_id) ){
       let playlist_id = songs_obj[item_id].song_playlist_ids[0];
```

```
queue_song_id_list = [...playlists_obj[playlist_id].playlist_song_ids].map(song_id => Number(song_id));
       queue_song_id_list = queue_song_id_list.filter(song_id => song_id != current_song_id);
       queue_song_id_list.unshift(current_song_id);
     }
  // appending queue with new playlist's songs if append queue == true
  // otherwise replacing queue with new playlist's songs if append queue == false
    if (append_queue){
       make_floating_notification("add_playlist_to_queue");
       let
              appending_song_ids
                                             [...playlists_obj[item_id].playlist_song_ids].map(song_id
Number(song id));
       if (shuffle_current_queue){
         appending song ids = shuffle array(appending song ids);
       // removing current song and songs already in queue from appending_song_ids
       appending_song_ids = appending_song_ids.filter(song_id => song_id != current_song_id && !
queue_song_id_list.includes(song_id));
       if (!first_play) appending_song_ids.unshift(current_song_id);
       queue_song_id_list = queue_song_id_list.concat(appending_song_ids);
     } else {
       if (shuffle_current_queue){
         queue song id list =
                                  shuffle array([...playlists obj[item id].playlist song ids].map(song id =>
Number(song id)));
         queue song id list = queue song id list.filter(song id => song id != current song id);
         queue song id list.unshift(current song id);
       else{
         queue_song_id_list = [...playlists_obj[item_id].playlist_song_ids].map(song_id => Number(song_id));
     }
  }
  queue_current_song_index = queue_song_id_list.lastIndexOf(current_song_id);
  render_queue();
function render_queue(){
  floating_queue_overlay_content_wrapper.innerHTML = "";
  player_extended_queue_content_wrapper.innerHTML = "";
  for (let song_index in queue_song_id_list){
    // getting song object and info
    let song id = queue song id list[song index];
    let song obj = songs obj[song id];
```

```
let song_name = song_obj.song_name;
        let song_artist_names = song_obj.song_artist_names;
        let song_duration = song_obj.song_duration;
        // creating queue overlay item
        let queue overlay content item = document.createElement("div");
        queue overlay content item.classList.add("queue-overlay-content-item");
        queue_overlay_content_item.id = "queue-overlay-content-item-song-" + song_id;
        floating_queue_overlay_content_wrapper.appendChild(queue_overlay_content_item);
        // queue overlay item cover
        let queue_overlay_content_item_cover = document.createElement("div");
        queue overlay content item cover.classList.add("queue-content-item-cover-column");
        queue overlay content item.appendChild(queue overlay content item cover);
        let queue_overlay_content_item_cover_image = document.createElement("img");
        queue_overlay_content_item_cover_image.classList.add("queue-content-item-cover-image");
        queue_overlay_content_item_cover_image.src
                                                                                                                                        "./media/covers/"
songs_obj[song_id].song_file_name_root + ".jpg";
        queue_overlay_content_item_cover_image.alt = "queue_item_cover";
        queue\_overlay\_content\_item\_cover\_appendChild(queue\_overlay\_content\_item\_cover\_image);
        let queue overlay content item cover image overlay icon wrapper = document.createElement("div");
        queue overlay content item cover image overlay icon wrapper.classList.add("content-item-cover-
overlay-icon-wrapper");
queue_overlay_content_item_cover.appendChild(queue_overlay_content_item_cover_image_overlay_icon_wrap
        let queue_overlay_content_item_cover_image_overlay_icon = document.createElement("i");
        queue overlay content item cover image overlay icon.classList.add("fa-solid");
        queue_overlay_content_item_cover_image_overlay_icon.classList.add("fa-play");
        queue_overlay_content_item_cover_image_overlay_icon.classList.add("queue-content-item-cover-overlay-
icon");
queue_overlay_content_item_cover_image_overlay_icon_wrapper.appendChild(queue_overlay_content_item_co
ver_image_overlay_icon);
        // queue overlay item name and artists
        let queue_overlay_content_item_name_and_artists_column = document.createElement("div");
        queue_overlay_content_item_name_and_artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-content-item-name-and-artists_column.classList.add("queue-co
artists-column");
        queue overlay content item.appendChild(queue overlay content item name and artists column);
        let queue overlay content item name = document.createElement("p");
        queue overlay content item name.classList.add("queue-content-item-name-row");
```

```
queue_overlay_content_item_name.innerText = song_name;
    queue_overlay_content_item_name_and_artists_column.appendChild(queue_overlay_content_item_name);
    let queue_overlay_content_item_artists = document.createElement("p");
    queue overlay content item artists.classList.add("queue-content-item-artists-row");
    queue overlay content item artists.innerText = song artist names:
    queue overlay content item name and artists column.appendChild(queue overlay content item artists);
    // queue overlay item duration
    let queue_overlay_content_item_duration = document.createElement("p");
    queue_overlay_content_item_duration.classList.add("queue-content-item-duration-column");
    queue overlay content item duration.innerText = return duration string(song duration);
    queue_overlay_content_item.appendChild(queue_overlay_content_item_duration);
    // adding clone of queue overlay item to player extended overlay queue part
    let player_extended_queue_content_item = queue_overlay_content_item.cloneNode(true);
    player_extended_queue_content_item.id = "player-extended-queue-content-item-song_" + song_id;
    player_extended_queue_content_wrapper.appendChild(player_extended_queue_content_item);
    if (song_id == current_song_id){
       queue_overlay_content_item.scrollIntoView();
       player_extended_queue_content_item.scrollIntoView();
     }
    // add event listeners to play that song
    queue overlay content item.onclick = () => play song(song id);
    player_extended_queue_content_item.onclick = () => play_song(song_id);
  }
}
function render_lyrics(song_id){
  song id = Number(song id);
  floating_lyrics_overlay_content_wrapper.innerHTML = songs_obj[song_id].song_lyrics_markup;
  player_extended_lyrics_content_wrapper.innerHTML = songs_obj[song_id].song_lyrics_markup;
  floating lyrics overlay content wrapper.scrollTop = 0;
  player_extended_lyrics_content_wrapper.scrollTop = 0;
function profile_dropdown_open_close(open = true){
  if (profile_dropdown_overlay.classList.contains("invisible-element") && open){
    profile_dropdown_overlay.classList.remove("shrunk-element");
    profile_dropdown_overlay.classList.remove("invisible-element");
  else {
    profile dropdown overlay.classList.add("shrunk-element");
    profile_dropdown_overlay.classList.add("invisible-element");
```

```
}
function login_logout(){
  if (current_user_id) logout();
  else login popup open close();
function login_popup_open_close(open = true){
  login_popup.classList.toggle("invisible-element");
  switch_login_popup_tab();
function switch_login_popup_tab(tab = "login"){
  if (tab == "login"){
     login popup login tab button.classList.add("login-popup-tab-active-button");
    login_popup_signup_tab_button.classList.remove("login-popup-tab-active-button");
    login_popup_login_tab.classList.remove("invisible-element");
    login_popup_login_tab.classList.remove("shrunk-element");
    login_popup_signup_tab.classList.add("invisible-element");
    login_popup_signup_tab.classList.add("shrunk-element");
    setTimeout(() => {
       login_popup_login_tab.querySelector(".login-popup-username-input").focus();
     }, 200);
  } else {
    login popup login tab button.classList.remove("login-popup-tab-active-button");
    login popup signup tab button.classList.add("login-popup-tab-active-button");
    login_popup_signup_tab.classList.remove("invisible-element");
    login_popup_signup_tab.classList.remove("shrunk-element");
    login_popup_login_tab.classList.add("invisible-element");
    login_popup_login_tab.classList.add("shrunk-element");
    setTimeout(() => {
       login_popup_signup_tab.querySelector(".login-popup-username-input").focus();
     }, 200);
  login popup login tab.querySelector(".login-popup-username-caution-text").classList.add("display-none");
  login_popup_login_tab.querySelector(".login-popup-password-caution-text").classList.add("display-none");
  login_popup_signup_tab.querySelector(".login-popup-username-caution-text").classList.add("display-none");
  login\_popup\_signup\_tab.querySelector(".login-popup-password-caution-text"). classList.add("display-none");
  login_popup_signup_tab.querySelector(".login-popup-email-caution-text").classList.add("display-none");
  login_popup_signup_tab.querySelector(".login-popup-confirm-password-caution-text").classList.add("display-
none");
}
function login(){
  let username input = login popup login tab.querySelector(".login-popup-username-input");
  let username caution text = login popup login tab.querySelector(".login-popup-username-caution-text");
  let password input = login popup login tab.querySelector(".login-popup-password-input");
```

```
let password_caution_text = login_popup_login_tab.querySelector(".login-popup-password-caution-text");
  let username = username_input.value;
  let password = password_input.value;
  // checking if username and password are entered
  if (! username || ! password){
    username_input.focus();
    username_caution_text.classList.add("display-none");
    password_caution_text.classList.remove("display-none");
    password_caution_text.innerText = "Please enter all the details";
    return;
  } else {
    username caution text.classList.add("display-none");
    password_caution_text.classList.add("display-none");
  // checking if username exists
  let user_id = Object.keys(users_obj).filter(id => users_obj[id].username == username)[0];
  let user_obj = users_obj[user_id];
  if (! user_obj){
    username_input.focus();
    username caution text.classList.remove("display-none");
    username caution text.innerText = "Username does not exist. Please try again or sign up";
  // checking if password is correct
  if (user_obj.password != password){
    password_input.focus();
    password_caution_text.classList.remove("display-none");
    password_caution_text.innerText = "Incorrect password. Please try again";
    return;
  // if everything is correct then login i.e. set current_user_id and update user content
  current_user_id = user_id;
  username input.value = "";
  password_input.value = "";
  update_user_content(true);
  login_popup_open_close(false);
  make_floating_notification("login");
function signup(){
  let username_input = login_popup_signup_tab.querySelector(".login-popup-username-input");
```

```
let username_caution_text = login_popup_signup_tab.querySelector(".login-popup-username-caution-text");
  let email_input = login_popup_signup_tab.querySelector(".login-popup-email-input");
  let email_caution_text = login_popup_signup_tab.querySelector(".login-popup-email-caution-text");
  let password_input = login_popup_signup_tab.querySelector(".login-popup-password-input");
  let password caution text = login popup signup tab.querySelector(".login-popup-password-caution-text");
  let confirm_password_input = login_popup_signup_tab.querySelector(".login-popup-confirm-password-
input"):
                                               login_popup_signup_tab.querySelector(".login-popup-confirm-
  let
        confirm_password_caution_text =
password-caution-text");
  let username = username_input.value;
  let email = email input.value;
  let password = password_input.value;
  let confirm password = confirm password input.value;
  if (! username || ! email || ! password || ! confirm_password){
     username input.focus();
    confirm_password_caution_text.classList.remove("display-none");
    confirm_password_caution_text.innerText = "Please enter all the details";
    return;
  } else {
    username_caution_text.classList.add("display-none");
    email caution text.classList.add("display-none");
    password caution text.classList.add("display-none");
  if (Object.keys(users obj).filter(id => users obj[id].username == username).length > 0){
    username input.focus();
    username caution text.classList.remove("display-none");
    username_caution_text.innerText = "Username taken. Please try again";
    return;
  } else {
    email caution text.classList.add("display-none");
    password_caution_text.classList.add("display-none");
    confirm_password_caution_text.classList.add("display-none");
  if (email_regex.test(email) == false){
    email_input.focus();
    email_caution_text.classList.remove("display-none");
    email_caution_text.innerText = "Please enter a valid email";
    return;
  } else {
    email_caution_text.classList.add("display-none");
    password_caution_text.classList.add("display-none");
    confirm password caution text.classList.add("display-none");
  if (password != confirm password){
    password input.focus();
```

```
confirm_password_caution_text.classList.remove("display-none");
    confirm_password_caution_text.innerText = "Passwords do not match. Please try again";
    return;
  } else {
    confirm password caution text.classList.add("display-none");
  let new_user = {
     "username": username,
     "email": email,
     "password": password,
     "created_at": new Date(),
     "liked_song_ids_list": [],
     "saved playlist ids list": [],
     "recently_played_song_ids_list": [],
     "recently_played_playlist_ids_list": []
  }
  username_input.value = "";
  email_input.value = "";
  password_input.value = "";
  confirm_password_input.value = "";
  current user id = Object.keys(users obj).length + 1;
  sessionStorage.setItem("current user id", current user id);
  users obj[current user id] = new user;
  localStorage.setItem("users_obj", JSON.stringify(users_obj));
  update_user_content(true);
  login_popup_open_close(false);
  make_floating_notification("signup");
function logout(){
  current_user_id = null;
  update_user_content();
  make_floating_notification("logout");
function update_user_obj(){
  let user_obj = users_obj[current_user_id];
  user obj.liked song ids list = liked song ids list;
  user_obj.saved_playlist_ids_list = saved_playlist_ids_list;
  user_obj.recently_played_song_ids_list = recently_played_song_ids_list;
  user_obj.recently_played_playlist_ids_list = recently_played_playlist_ids_list;
```

```
users_obj[current_user_id] = user_obj;
  localStorage.setItem("users_obj", JSON.stringify(users_obj));
}
function update_user_content(just_logged_in = false){
  users_obj = localStorage.getItem("users_obj") ? JSON.parse(localStorage.getItem("users_obj")) : {};
  if (current_user_id) {
    let user_obj = users_obj[current_user_id];
    if (just logged in){
       profile_dropdown_overlay_login_status.innerText
                                                                        "Logged
                                                                                        into
users_obj[current_user_id].username;
       profile_dropdown_overlay_login_logout_button.innerText = "Logout";
       sessionStorage.setItem("current_user_id", JSON.stringify(current_user_id));
       liked_song_ids_list = user_obj.liked_song_ids_list;
       saved playlist ids list = user obj.saved playlist ids list;
       recently played song ids list = user obj.recently played song ids list;
       recently_played_playlist_ids_list = user_obj.recently_played_playlist_ids_list;
     }
    update_user_obj();
  } else {
    profile_dropdown_overlay_login_status.innerText = "Not logged in";
    profile_dropdown_overlay_login_logout_button.innerText = "Login / Sign Up";
    liked_song_ids_list = [];
    saved_playlist_ids_list = [];
    recently_played_song_ids_list = [];
    recently_played_playlist_ids_list = [];
    sessionStorage.setItem("current_user_id", JSON.stringify(current_user_id));
  if (current_content_window_content_type == "tab"){
    render_content_window(current_content_window_content_tag_id, true);
  // else render playlist(current content window content tag id);
function like_unlike_song(song_id){
```

```
if (!current_user_id){
    make_floating_notification("not_logged_in", false);
    return;
  song id = Number(song id);
  let playlist_liked_unliked_item_like_icon_id = "#playlist-content-item-like-button-icon-song-" + song_id;
  let
                                 playlist_current_playing_item_like_icon_element
content_window.querySelector(playlist_liked_unliked_item_like_icon_id);
  // Adding or removing song id from liked_song_ids_list
  if (liked_song_ids_list.includes(song_id)){
    liked song ids list = liked song ids list.filter(id => id! = song id);
     make_floating_notification("unlike_song");
    if (song_id == current_song_id){
       player like button icon.classList.remove("fa-solid");
       player_like_button_icon.classList.add("fa-regular");
    if (playlist_current_playing_item_like_icon_element){
       playlist_current_playing_item_like_icon_element.classList.remove("fa-solid");
       playlist_current_playing_item_like_icon_element.classList.add("fa-regular");
  } else {
    liked song ids list.unshift(song id);
    make floating notification("like song");
    if (song_id == current_song_id){
       player_like_button_icon.classList.remove("fa-regular");
       player_like_button_icon.classList.add("fa-solid");
    if (playlist_current_playing_item_like_icon_element){
       playlist_current_playing_item_like_icon_element.classList.add("fa-solid");
       playlist_current_playing_item_like_icon_element.classList.remove("fa-regular");
     }
  update_user_content();
function shuffle_on_off(){
  shuffle = !shuffle;
  sessionStorage.setItem("shuffle", shuffle);
  if (shuffle){
    player_shuffle_button_icon.classList.remove("inactive-button");
    player_shuffle_button_icon.classList.add("inactive-button");
```

```
function play_previous_song(){
  // if current time is greater than 5 seconds, then play the current song from the beginning
  if (player_audio_controls.currentTime > 5){
    player audio controls.currentTime = 0;
    return:
  if (shuffle){
    let queue_previous_song_index = queue_played_song_indexes_list.pop();
    if (! queue_previous_song_index) return;
    let previous_song_id = queue_song_id_list[queue_previous_song_index];
    play_song(previous_song_id);
  } else {
    // if shuffle off, current time is less than 5 seconds, and queue not at beginning then play the previous song
    if (queue_current_song_index > 0){
       queue_current_song_index--;
       let previous_song_id = queue_song_id_list[queue_current_song_index];
       play_song(previous_song_id);
     }
  // if shuffle off, current time is less than 5 seconds, and queue at beginning then do nothing
function toggle play pause icon(play){
  if (play){
    player play pause button icon.classList.remove("fa-circle-play");
    player_play_pause_button_icon.classList.add("fa-circle-pause");
  else{
    player_play_pause_button_icon.classList.remove("fa-circle-pause");
    player_play_pause_button_icon.classList.add("fa-circle-play");
}
function play pause(play = false){
  if (player_play_pause_button_icon.classList.contains("fa-circle-play") || play){
    player_audio_controls.play();
    player_play_pause_button_container.title = "Pause";
  else{
    player_audio_controls.pause();
    player_play_pause_button_container.title = "Play";
  }
}
function play_song(song_id, playlist_id = null, append_queue = false, shuffle_current_queue = false){
  song id = Number(song id);
```

```
if (first_play){
    nav.classList.remove("full-height");
    right_window.classList.remove("full-height");
    player.classList.remove("inactive-player");
  recently played song ids list = recently played song ids list.filter(id => id != song id);
  recently_played_song_ids_list.unshift(song_id);
  if (playlist id){
    playlist_id = Number(playlist_id);
    recently_played_playlist_ids_list = recently_played_playlist_ids_list.filter(id => id != song_id);
    recently_played_playlist_ids_list.unshift(song_id);
  // if the song is already playing, do nothing
  if (song id == current song id){
    return;
  }
  // updating queue current song id for current queue index to use when rendering new songs from tabs
  let last_song_id = current_song_id;
  current_song_id = song_id;
  let song obj = songs obj[song id];
  // update player song info
  let img src = "./media/covers/" + songs obj[song id].song file name root + ".jpg";
  player_song_cover_image.src = img_src;
  player_extended_cover_image.src = img_src;
  player_extended_cover_image.alt = "song_cover_image";
  player_song_name.innerText = song_obj.song_name;
  player_song_artist.innerText = song_obj.song_artist_names;
  player_audio_total_duration_label.innerText = return_duration_string(song_obj.song_duration);
  render_lyrics(song_id);
  if (liked_song_ids_list.includes(song_id)){
    player_like_button_icon.classList.add("fa-solid");
    player_like_button_icon.classList.remove("fa-regular");
  else{
    player_like_button_icon.classList.remove("fa-solid");
    player_like_button_icon.classList.add("fa-regular");
  player_audio_controls.innerHTML = `<source src="./media/audios/${song_obj.song_file_name_root}.mp3"
type="audio/mpeg">`;
  player audio controls.load();
```

```
play_pause(true);
  if (playlist_id != null){
    update_queue(playlist_id, false, append_queue, shuffle_current_queue);
  else{
    update queue(song id, true);
  highlight_playing_item(last_song_id, current_song_id);
  first_play = false;
  update_user_content();
function play next song(){
  // if repeat == 2 i.e. repeat one, play the same song again
  if (repeat == 2)
    player_audio_controls.currentTime = 0;
    play_pause(true);
    return;
  // if repeat == 1 or 0 i.e. repeat all or no repeat
  queue played song indexes list.push(queue current song index);
  queue current song index++;
  // if repeat == 1 i.e. repeat all, move to first song in queue if last song is playing
  if (repeat == 1)
    if (shuffle){
       // repeat == 1 and shuffle on so moving to random old song in queue if last song is playing
       if (queue_played_song_indexes_list.length == queue_song_id_list.length){
         queue_played_song_indexes_list = [];
       queue_current_song_index = Math.floor(Math.random() * queue_song_id_list.length);
       while (queue_played_song_indexes_list.includes(queue_current_song_index)){
         queue_current_song_index = Math.floor(Math.random() * queue_song_id_list.length);
       }
     }
    else{
       // repeat == 1 and shuffle off so moving to first song in queue if last song is playing
       if (queue_current_song_index == queue_song_id_list.length){
         queue_current_song_index = 0;
    let next_song_id = queue_song_id_list[queue_current_song_index];
    play song(next song id);
    return;
  // if repeat == 0 i.e. no repeat
```

```
if (shuffle){
    // repeat == 0 and shuffle on so appending next random playlist to queue if last song is playing
    if (queue_played_song_indexes_list.length == queue_song_id_list.length){
       let current_playlist_id = songs_obj[current_song_id].song_playlist_ids[0];
       let next random playlist id = Math.floor(Math.random() * Object.keys(playlists obj).length);
       while (next random playlist id == current playlist id){
         next random playlist id = Math.floor(Math.random() * Object.keys(playlists obj).length);
       let next_random_playlist_song_ids = playlists_obj[next_random_playlist_id].playlist_song_ids;
       let next_random_song_index = Math.floor(Math.random() * next_random_playlist_song_ids.length);
       let next_song_id = next_random_playlist_song_ids[next_random_song_index];
       play_song(next_song_id, next_random_playlist_id, true);
       return;
     queue current song index = Math.floor(Math.random() * queue song id list.length);
     while (queue_played_song_indexes_list.includes(queue_current_song_index)){
       queue current song index = Math.floor(Math.random() * queue song id list.length);
    let next_song_id = queue_song_id_list[queue_current_song_index];
    play_song(next_song_id);
    return;
  // if repeat == 0 and no shuffle, append next playlist in queue if last song is playing
  if (queue current song index == queue song id list.length){
    let current playlist id = songs obi[current song id].song playlist ids[0];
    let next playlist id = (current playlist id + 1) \% Object.keys(playlists obj).length;
    let next_song_id = playlists_obj[next_playlist_id].playlist_song_ids[0];
    play_song(next_song_id, next_playlist_id, true);
    return;
  let next_song_id = queue_song_id_list[queue_current_song_index];
  play_song(next_song_id);
function repeat toggle(){
  repeat = ++repeat % 3;
  sessionStorage.setItem("repeat", repeat);
  if (repeat == 0)
    player_repeat_button_icon.classList.add("inactive-button");
    player_repeat_button_icon.classList.remove("small-button");
    player_repeat_button_icon_one.classList.add("shrunk-element");
  else if (repeat == 1){
    player repeat button icon.classList.remove("inactive-button");
  else{
    player repeat button icon.classList.remove("inactive-button");
```

```
player_repeat_button_icon.classList.add("small-button");
    player_repeat_button_icon_one.classList.remove("shrunk-element");
  }
}
function options dialog open close(){
  // open or close options dialog
function queue_overlay_open_close(open = true){
  if (player_queue_button_icon.classList.contains("inactive-button") && open){
     player_queue_button_icon.classList.remove("inactive-button");
    floating_queue_overlay.classList.remove("shrunk-element");
    player floating part.style.height = player floating part full height;
  else{
    player_queue_button_icon.classList.add("inactive-button");
    floating_queue_overlay.classList.add("shrunk-element");
    if (floating_lyrics_overlay.classList.contains("shrunk-element")){
       player_floating_part.style.height = 0;
     }
  }
}
function lyrics overlay open close(open = true){
  if (player lyrics button icon.classList.contains("fa-regular") && open){
    floating lyrics overlay.classList.remove("shrunk-element");
    player_floating_part.style.height = player_floating_part_full_height;
    player_lyrics_button_icon.classList.remove("inactive-button");
    player_lyrics_button_icon.classList.add("fa-solid");
    player_lyrics_button_icon.classList.remove("fa-regular");
  else{
    floating_lyrics_overlay.classList.add("shrunk-element");
    if (floating queue overlay.classList.contains("shrunk-element")){
       player_floating_part.style.height = 0;
    player_lyrics_button_icon.classList.add("inactive-button");
    player_lyrics_button_icon.classList.remove("fa-solid");
    player_lyrics_button_icon.classList.add("fa-regular");
  }
}
function update volume icon(){
  player_volume_button_icon.classList = "fa-solid";
  if (player audio controls.volume == 0 || player audio controls.muted){
    player volume button icon.classList.add("fa-volume-xmark");
```

```
else{
    player_volume_button_icon.classList.add("fa-volume-high");
  }
}
function mute unmute(){
  if (player audio controls.muted){
    player_audio_controls.muted = false;
    player_volume_button_container.title = "Mute";
  else{
    player_audio_controls.muted = true;
    player volume button container.title = "Unmute";
  update_volume_icon();
function update_volume(){
  player_audio_controls.volume = player_volume_seek_bar.value / 100;
  update_volume_icon();
function highlight playing item(last song id, next song id){
  last song id = Number(last song id);
  next song id = Number(next_song_id);
  let playlist last playing item = "#playlist-content-item-song-" + last song id;
  let queue_overlay_last_playing_item = "#queue-overlay-content-item-song-" + last_song_id;
  let player_extended_queue_last_playing_item = "#player-extended-queue-content-item-song-" + last_song_id;
  let playlist_last_playing_item_element = content_window.querySelector(playlist_last_playing_item);
                                   queue_overlay_last_playing_item_element
floating_queue_overlay_content_wrapper.querySelector(queue_overlay_last_playing_item);
                               player_extended_queue_last_playing_item_element
player_extended_queue_content_wrapper.querySelector(player_extended_queue_last_playing_item);
                  last_playing_item_elements
                                                                        [playlist_last_playing_item_element,
queue_overlay_last_playing_item_element, player_extended_queue_last_playing_item_element];
  last_playing_item_elements.forEach((element) => {
    if (element){
       element.classList.remove("active-item");
       let playing_item_overlay_icon_wrapper = element.querySelector(".content-item-cover-overlay-icon-
wrapper");
       let playing item overlay icon = element.getElementsByTagName("i")[0];
       playing item overlay icon wrapper.classList.remove("opacity-1");
       playing item overlay icon.classList.remove("fa-volume-high");
       playing item overlay icon.classList.add("fa-play");
```

```
}
  });
  let playlist_current_playing_item = "#playlist-content-item-song-" + next_song_id;
  let queue overlay current playing item = "#queue-overlay-content-item-song-" + next song id;
      player extended queue current playing item = "#player-extended-queue-content-item-song-"
next song id;
  let playlist_current_playing_item_element = content_window.querySelector(playlist_current_playing_item);
                                 queue_overlay_current_playing_item_element
floating_queue_overlay_content_wrapper.querySelector(queue_overlay_current_playing_item);
                             player_extended_queue_current_playing_item_element
player_extended_queue_content_wrapper.querySelector(player_extended_queue_current_playing_item);
                current playing item elements
                                                                     [playlist current playing item element,
queue_overlay_current_playing_item_element, player_extended_queue_current_playing_item_element];
  current playing item elements.forEach((element) => {
    if (element){
       element.classList.add("active-item");
       let playing_item_overlay_icon_wrapper = element.querySelector(".content-item-cover-overlay-icon-
wrapper");
       let playing_item_overlay_icon = element.getElementsByTagName("i")[0];
       playing item overlay icon wrapper.classList.add("opacity-1");
       playing item overlay icon.classList.add("fa-volume-high");
       playing item overlay icon.classList.remove("fa-play");
     }
  });
}
function toggle_extended_player(extend = true){
  if (player_extended_overlay.classList.contains("shrunk-element") && extend){
    player extended overlay.classList.remove("shrunk-element");
    content_window.classList.add("invisible-element");
    queue_overlay_open_close(false);
    lyrics overlay open close(false);
    player queue button container.classList.add("shrunk-element");
    player_queue_button_container.classList.add("invisible-element");
    player_lyrics_button_container.classList.add("shrunk-element");
    player_lyrics_button_container.classList.add("invisible-element");
    player_extend_button_icon.classList.add("rotate-180");
    shrink_unshrink_nav_bar(true);
  } else {
    player_extended_overlay.classList.add("shrunk-element");
    content window.classList.remove("invisible-element");
    player queue button container.classList.remove("shrunk-element");
    player queue button container.classList.remove("invisible-element");
    player lyrics button container.classList.remove("shrunk-element");
```

```
player_lyrics_button_container.classList.remove("invisible-element");
    player_extend_button_icon.classList.remove("rotate-180");
    shrink_unshrink_nav_bar(false);
  }
}
function shrink unshrink nav bar(shrink = true){
  if (!nav_shrinking_items[0].classList.contains("shrunk-element") && shrink){
    nav_shrinking_items.forEach((nav_shrinking_item) => {
       nav_shrinking_item.classList.add("shrunk-element");
       nav\_shrinking\_item.classList.add("invisible-element");
    nav_button_containers.forEach(nav_button_container => nav_button_container.classList.add("nav-button-
container-shrunk"));
    root.style.setProperty('--nav-width', '4.5rem');
    root.style.setProperty('--nav-min-width', 'unset');
    root.style.setProperty('--nav-max-width', 'unset');
  else {
    nav_shrinking_items.forEach(nav_shrinking_item => {
       nav_shrinking_item.classList.remove("shrunk-element");
       nav_shrinking_item.classList.remove("invisible-element");
     });
    nav button containers.forEach(nav button container =>
                                                                  nav button container.classList.remove("nav-
button-container-shrunk"));
    root.style.setProperty('--nav-width', nav original width);
    root.style.setProperty('--nav-min-width', nav_original_min_width);
    root.style.setProperty('--nav-max-width', nav_original_max_width);
}
function make_floating_notification(type, show_icon = true){
  let message = "";
  if (type == "welcome"){
    message = "Welcome to Re □ Ound!";
  else if (type == "not_logged_in"){
    message = "You must be logged in to do that!";
  else if (type == "login"){
    message = "Logged into @" + users obj[current user id].username;
  } else if (type == "logout"){
    message = "Logged out!";
  } else if (type == "signup"){
```

```
message = "Signed up with @" + users_obj[current_user_id].username + "!";
else if (type == "like_song"){
  message = "Added to Liked Songs";
} else if (type == "unlike song"){
  message = "Removed from Liked Songs";
else if (type == "add_playlist_to_library"){
  message = "Added Playlist to Library";
} else if (type == "remove_playlist_from_library"){
  message = "Removed Playlist from Library";
} else if (type == "add playlist to queue"){
  message = "Added Playlist to Queue";
else if (type == "shuffle_on"){
  message = "Shuffle On";
} else if (type == "shuffle_off"){
  message = "Shuffle Off";
} else if (type == "repeat_none"){
  message = "Repeat Off";
} else if (type == "repeat all"){
  message = "Repeat All";
} else if (type == "repeat one"){
  message = "Repeat One";
else if (type == "add_song_to_queue"){
  message = "Added Song to Queue";
let floating_notification = document.createElement("div");
floating_notification.classList.add("floating-notification");
body.appendChild(floating_notification);
if (show_icon){
  let floating_notification_icon = document.createElement("i");
  floating_notification_icon.classList.add("fa-solid");
  floating_notification_icon.classList.add("fa-square-check");
  floating_notification_icon.classList.add("floating-notification-icon");
  floating_notification.appendChild(floating_notification_icon);
let floating notification text = document.createElement("p");
floating notification text.classList.add("floating-notification-text");
```

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floating_notification_text.innerHTML = message;
  floating_notification.appendChild(floating_notification_text);
  setTimeout(() => {
    floating notification.classList.add("invisible-element");
    setTimeout(() => {
       floating notification.remove();
     }, 500);
  }, 3000);
// Event Listeners
nav.onmouseenter = () => shrink unshrink nav bar(false);
nav.onmouseleave = () => \{
  if (! player_extended_overlay.classList.contains("shrunk-element"))
     shrink_unshrink_nav_bar(true);
}
nav_home_button_container.onclick = () => render_content_window("home");
nav_explore_button_container.onclick = () => render_content_window("explore");
nav library button container.onclick = () => render content window("library");
search bar.onfocus = show hide search suggestions;
search_bar.onkeyup = update_search_suggestions;
search_bar.onkeydown = (event) => {
  if (event.key === "Enter"){
    event.preventDefault();
    search_suggestions_wrapper.classList.add("shrunk-element");
    search bar.blur();
    render_content_window("search");
  }
profile_button_container.onclick = (event) => {
  event.stopPropagation();
  profile_dropdown_open_close();
}
profile_dropdown_overlay_login_logout_button.onclick = login_logout;
login popup login tab button.onclick = () => switch login popup tab();
login_popup_signup_tab_button.onclick = () => switch_login_popup_tab("signup");
login_popup_close_button.onclick = login_popup_open_close;
login_popup_submit_login_button.onclick = login;
```

```
login_popup_submit_signup_button.onclick = signup;
player_like_button_container.onclick = () => like_unlike_song(current_song_id);
player shuffle button container.onclick = shuffle on off;
player previous song button container.onclick = play previous song;
player_play_pause_button_container.onclick = () => play_pause();
player_extended_cover_image.onclick = () => play_pause();
player_next_song_button_container.onclick = play_next_song;
player_repeat_button_container.onclick = repeat_toggle;
player_options_button_container.onclick = options_dialog_open_close;
player_queue_button_container.onclick = queue_overlay_open_close;
player_lyrics_button_container.onclick = lyrics_overlay_open_close;
player_volume_button_container.onclick = mute_unmute;
player volume seek bar.oninput = () => update volume();
player extend button container.onclick = toggle extended player;
document.onkeydown = (event) => {
  if (! login_popup.classList.contains("invisible-element")) {
    if (event.key == "Escape"){
       event.preventDefault();
       login_popup_open_close(false);
    if (event.key == "Enter"){
       event.preventDefault();
       if (login_popup_login_tab_button.classList.contains("login-popup-tab-active-button")){
         login();
       else signup();
     }
    return;
  if (event.key == "Escape"){
    if (document.activeElement.tagName == "INPUT" && document.activeElement.type == "text"){
       event.preventDefault();
       event.target.blur();
     }
```

```
else {
       event.preventDefault();
       toggle_extended_player();
     }
  if (document.activeElement.tagName == "INPUT" && (document.activeElement.type == "text" ||
document.activeElement.type == "password" || document.activeElement.type == "email")){
  if (event.key == " "){
    event.preventDefault();
    play_pause();
  if (event.key == "ArrowLeft"){
    event.preventDefault();
    player_audio_controls.currentTime -= 5;
  if (event.key == "ArrowRight"){
    event.preventDefault();
    player_audio_controls.currentTime += 5;
  if (event.key == "ArrowUp"){
    event.preventDefault();
    player volume seek bar.value = Number(player volume seek bar.value) + 5;
    update_volume();
  if (event.key == "ArrowDown"){
    event.preventDefault();
    player_volume_seek_bar.value = Number(player_volume_seek_bar.value) - 5;
    update_volume();
  if (event.key.toUpperCase() == "S"){
    event.preventDefault();
    shuffle_on_off();
  if (event.key.toUpperCase() == "R"){
    event.preventDefault();
    repeat_toggle();
  if (event.key.toUpperCase() == "M"){
    event.preventDefault();
    mute_unmute();
  if (event.key.toUpperCase() == "Q" && player_extended_overlay.classList.contains("shrunk-element")){
    event.preventDefault();
    queue_overlay_open_close();
```

```
if (event.key.toUpperCase() == "L" && player_extended_overlay.classList.contains("shrunk-element")){
    event.preventDefault();
    lyrics_overlay_open_close();
  if (event.shiftKey && event.key.toUpperCase() == "P"){
    event.preventDefault();
    play_previous_song();
  if (event.shiftKey && event.key.toUpperCase() == "N"){
    event.preventDefault();
    play_next_song();
  if (event.ctrlKey && event.key.toUpperCase() == "F"){
    event.preventDefault();
    search_bar.focus();
document.onclick = (event) => {
  if (document.activeElement.id != "search-bar"){
    show_hide_search_suggestions(false);
  if (event.target != profile_dropdown_overlay_login_status && event.target != profile_dropdown_overlay){
    profile_dropdown_open_close(false);
}
player_audio_controls.onplay = () => toggle_play_pause_icon(true);
player_audio_controls.onpause = () => toggle_play_pause_icon(false);
player_audio_controls.onloadedmetadata = () => player_audio_controls.currentTime = 0;
player_audio_controls.onended = play_next_song;
player_audio_controls.ontimeupdate = update_audio_seek_bar_and_time_stamp;
player_audio_seek_bar.oninput = () => player_audio_controls.currentTime = player_audio_seek_bar.value;
// Function Calls
render_content_window("home");
render_nav_library_content();
update_user_content(true);
```