

# WEB DEVELOPMENT SUMMER INTERSHIP PROJECT 2025



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<https://samirjsarmah.me/Samify-MusicPlayer/>

# Purpose

Music streaming web application inspired by popular platforms like Spotify. The project structure includes multiple playlists stored in dedicated folders, each containing MP3 audio files and a playlists.json metadata file with contains all the meta data of the Playlists.

1. A landing page (index.html) for initial access.
2. A main player interface (main.html) displaying playlists, a library of songs, and playback controls.

# Users Can

- 1 **Browse playlists visually with album covers and artist information**
- 2 **Load and play songs from any selected playlist.**
- 3 **View track details, progress, and duration**
- 4 **Use play, pause, next, and previous controls**

# Technologies Used

- 1 **HTML** - for page structure.
- 2 **CSS** - for responsive design and styling
- 3 **JavaScript** -
  - Loading playlist data from JSON.
  - Handling audio playback and controls.
  - Dynamically updating the user interface



# Key Features

Multiple playlists with MP3 files.

Dynamic content loading using JSON(JavaScript Object Notation File) .  
Interactive audio controls (play, pause, next, previous).

Responsive and modern design.

Clear separation between landing page and player interface.

Responsive UI with hamburger navigation

# Project Structure (Directory Overview)

**index.html** ← Landing Page

**main.html**

- |
- |    └ <body>
- |      └ .main-wrapper
- |        └ .left
  - |          └ .logo ← Sidebar (hamburger menu) ← Website name / icon
  - |          └ .songList ← List of songs in selected playlist
  - |          └ <ul>...</ul>
- |
- |    └ .right ← Main area
- |      └ .topbar
- |        └ .hamburger ← Mobile menu toggle ← Sign up & Log in
- |      └ .buttons
- |
- |    └ .cardContainer ← Playlist cards (thumbnails)
- |      └ .card ← Individual playlist
- |      └ ...
- |
- |    └ .currentPlaying ← Now playing song info
- |      └ .songinfo
- |      └ .songtime
- |
- |    └ .seekbar ← Progress bar
- |
- |    └ .controls ← Play, Pause, Previous, Next, Volume
- |      └ #previous
- |      └ #play
- |      └ #next
- |      └ .volume
- |      └ <img> icon
- |      └ .range input

**css/**

- |    └ style.css ← Core styles for layout
- |    └ utility.css ← Reusable classes

**js/**

- |    └ script.js ← Loads playlists.json and controls playback

**img/**

- |    └ icon.png ← Site favicon
- |    └ play.svg, pause.svg ← Control icons
- |    └ volume.svg, mute.svg
- |    └ music.svg ← List icons

**playlists.json** ← All playlist info (title, cover, songs)

[

{

  "folder": "A\_zubeen\_mode",  
  "cover": "songs/A\_zubeen\_mode/cover.jpg",  
  "title": "Zubeen Mode",  
  "description": "Zubeen's Collections",  
  "songs":

- [
- "AAMI JEN JANTRA.mp3",  
  "Anuradha.mp3",  
  "MAYA MATHU.mp3",  
  "Mayabini Ratir Bukut.mp3"
- ]

},

{

  "folder": "K-Lofi",  
  "cover": "songs/K-Lofi/cover.jpg",  
  "title": "Lofi Music",  
  "description": "Relaxed Beats",  
  "songs": [

- [
- .....mp3
- ]

]

}

}

# The Frontend UI

## LAYOUT:

- left panel: Navigation & Library
- right panel: Header, playlists, and the playbar

## FEATURES:

- Hamburger menu (for mobile view)
- Dynamic playlist rendering
- Controls: Play, Pause, Next, Previous
- Volume slider
- Seekbar with live updates

# The Styling

## **STYLE.CSS (STYLING THE PLAYER)**

- Dark theme inspired by Spotify
- Responsive using media queries
- Styled cards for albums
- Playbar fixed at the bottom
- Hover effects on cards
- Current song highlighted with a green background (.playing class)

## **UTILITY.CSS (REUSABLE UTILITY CLASSES)**

Examples:

- .flex, .bg-black, .rounded
- Custom scrollbar styling

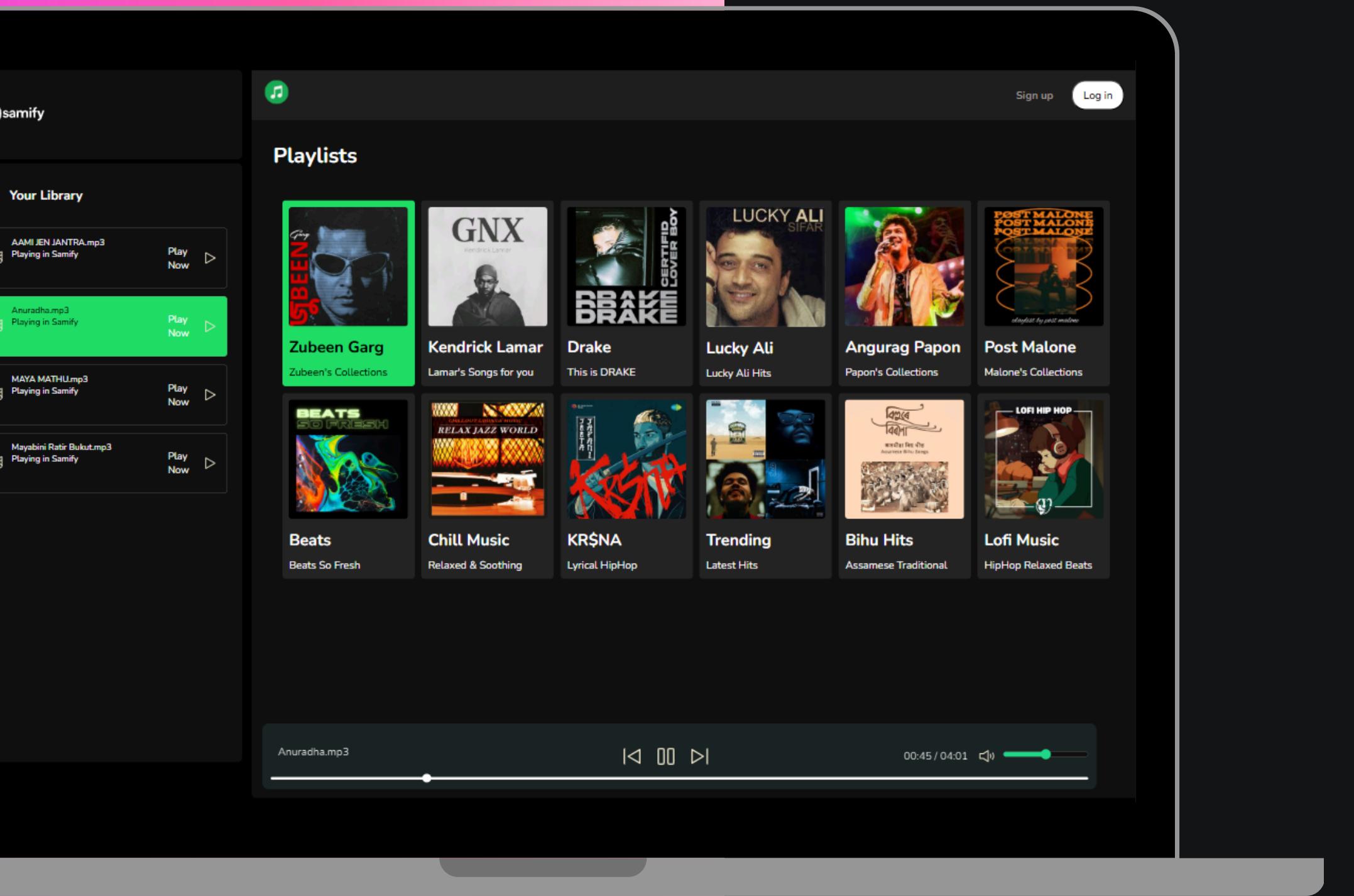
# JavaScript Logic

## SCRIPT.JS

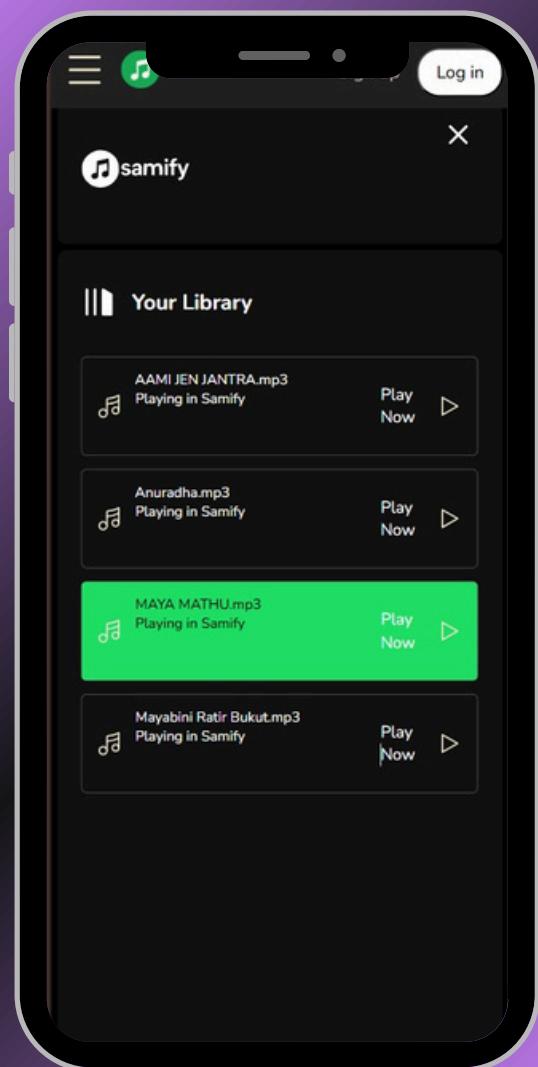
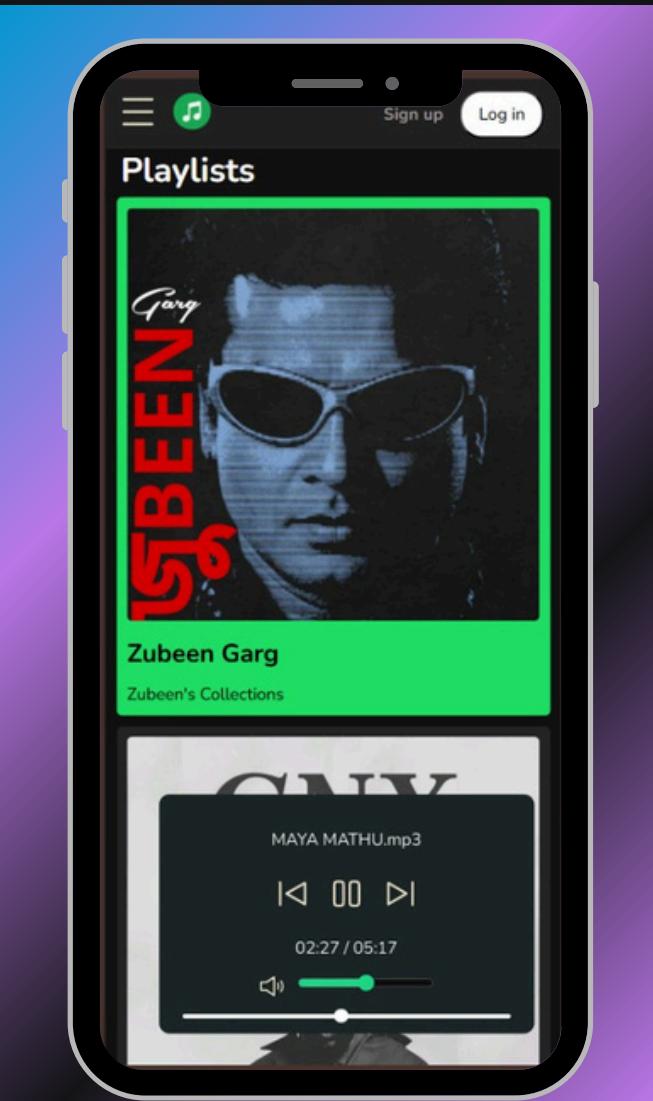
### Key Functions:

- *getSongs(folder)*  
Fetches MP3 files from meta file and lists them.
- *playMusic(track)*  
Loads and plays a specific track; highlights it.
- *displayAlbums()*  
Fetches all albums
- *main()*  
Initializes:
  - First song
  - Event listeners for play, pause, seek, volume
  - Album switching and UI controls

# The Desktop View



# The Mobile View



# Thank You

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