

WEB DEVELOPMENT SUMMER INTERSHIP PROJECT 2025



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

Purpose

This project is a web-based music streaming application inspired by popular platforms like Spotify. It features a user-friendly interface and organized playlist structure to enhance the music experience.

The application's project structure includes multiple playlists, each stored in its own dedicated folder. Every playlist folder contains:

- MP3 audio files: The actual songs to be played.
- playlists.json metadata file: Contains metadata for each playlist, including details such as:
 - Playlist name
 - Description

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

```
├── <body>
│   └── .main-wrapper
│       ├── .left
│       │   ├── .logo      ← Sidebar (hamburger menu)
│       │   ├── .songList   ← Website name / icon
│       │   └── <ul>...</ul>
│
│       └── .right      ← Main area
│           ├── .topbar
│           │   ├── .hamburger    ← Mobile menu toggle
│           │   └── <img>      ← Icon <p> Feel THE Music </p>
│
│           ├── .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": "Folder_Name", "cover": "songs/Folder_Name/cover.jpg", "title": "Playlist Title", "description": "Playlist Description", "songs": [.....mp3]}]
```

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": "Folder_Name", "cover": "songs/Folder_Name/cover.jpg", "title": "Playlist Title", "description": "Playlist Description", "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

A screenshot of the Samify desktop interface. At the top, it says "Feel The Music". Below that is a "Playlists" section with cards for "Zubeen Mode", "Kendrick Lamar", "Drake", "LUCKY ALI", "Angurag Papon", and "Post Malone". Underneath are sections for "Beats", "Chill Music", "Bolly Mix", "Latest Trends", "Phonk", and "Lofi Music". A large green button at the bottom left says "AAMI JEN JANTRA Playing in Samify". At the bottom right is a media control bar with a play/pause button, a progress bar showing "00:30 / 05:44", and a volume slider.

A screenshot of the Samify mobile application on an iPhone. It shows the same "Playlists" screen as the desktop version. Below it is a large image of a person wearing sunglasses. At the bottom is a playback interface with a song title "AAMI JEN JANTRA", a play/pause button, a progress bar showing "01:15 / 05:44", and a volume slider.

A screenshot of the Samify mobile application on an iPhone. It shows the "Your Library" section with cards for "AAMI JEN JANTRA", "Anuradha", "MAYA MATHU", and "Mayabini Ratir Bukut", each with a "Play Now" button. At the bottom is a playback interface with a song title "AAMI JEN JANTRA", a play/pause button, a progress bar showing "01:15 / 05:44", and a volume slider.

Thank You

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