

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)
- | | | | `- .songList ← Website name / icon
- | | | | `- ...
- | | `- .right ← Main area
- | | | `- .topbar
- | | | | `- .hamburger ← Mobile menu toggle
- | | | | `- .buttons ← Sign up & Log in
- | | `- .cardContainer
- | | | `- .card ← Playlist cards (thumbnails)
- | | | `- ...
- | | `- .currentPlaying
- | | | `- .songinfo
- | | | `- .songtime
- | | `- .seekbar ← Progress bar
- | | `- .controls ← Play, Pause, Previous, Next, Volume
- | | | `- #previous
- | | | `- #play
- | | | `- #next
- | | | `- .volume
- | | | `- 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

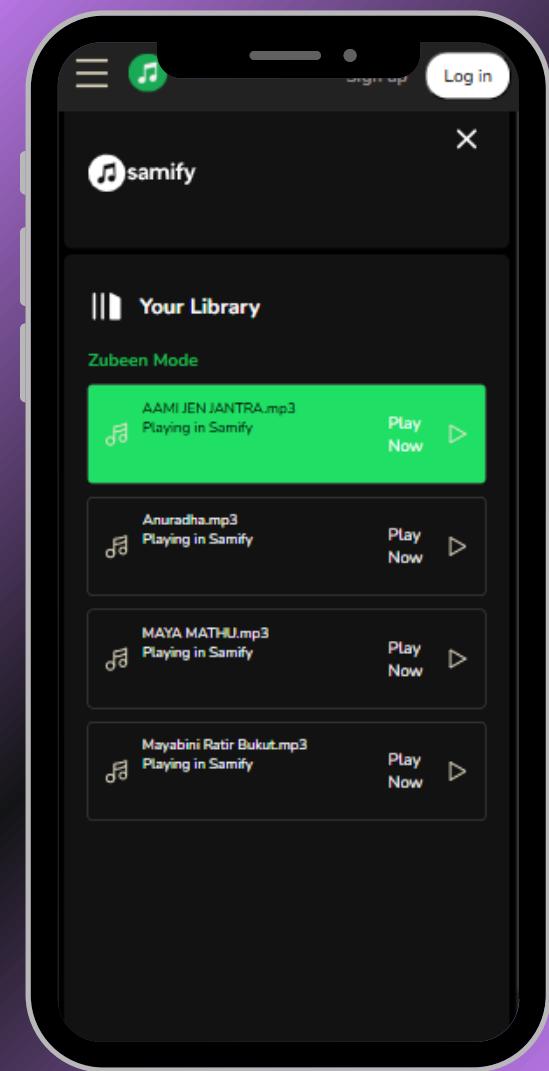
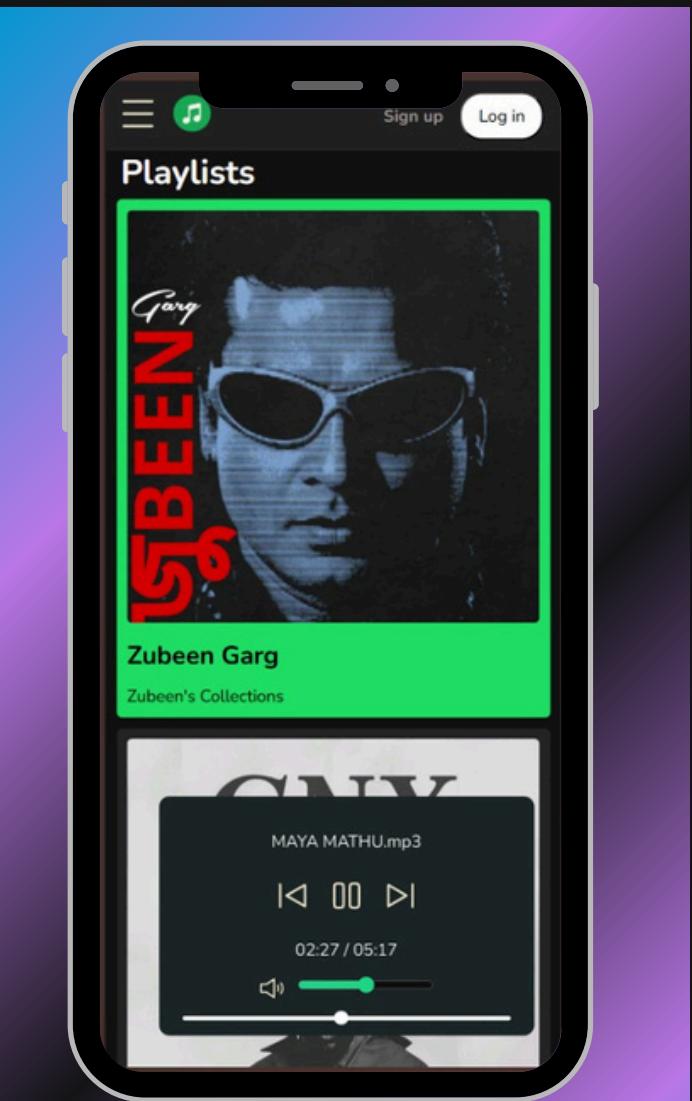
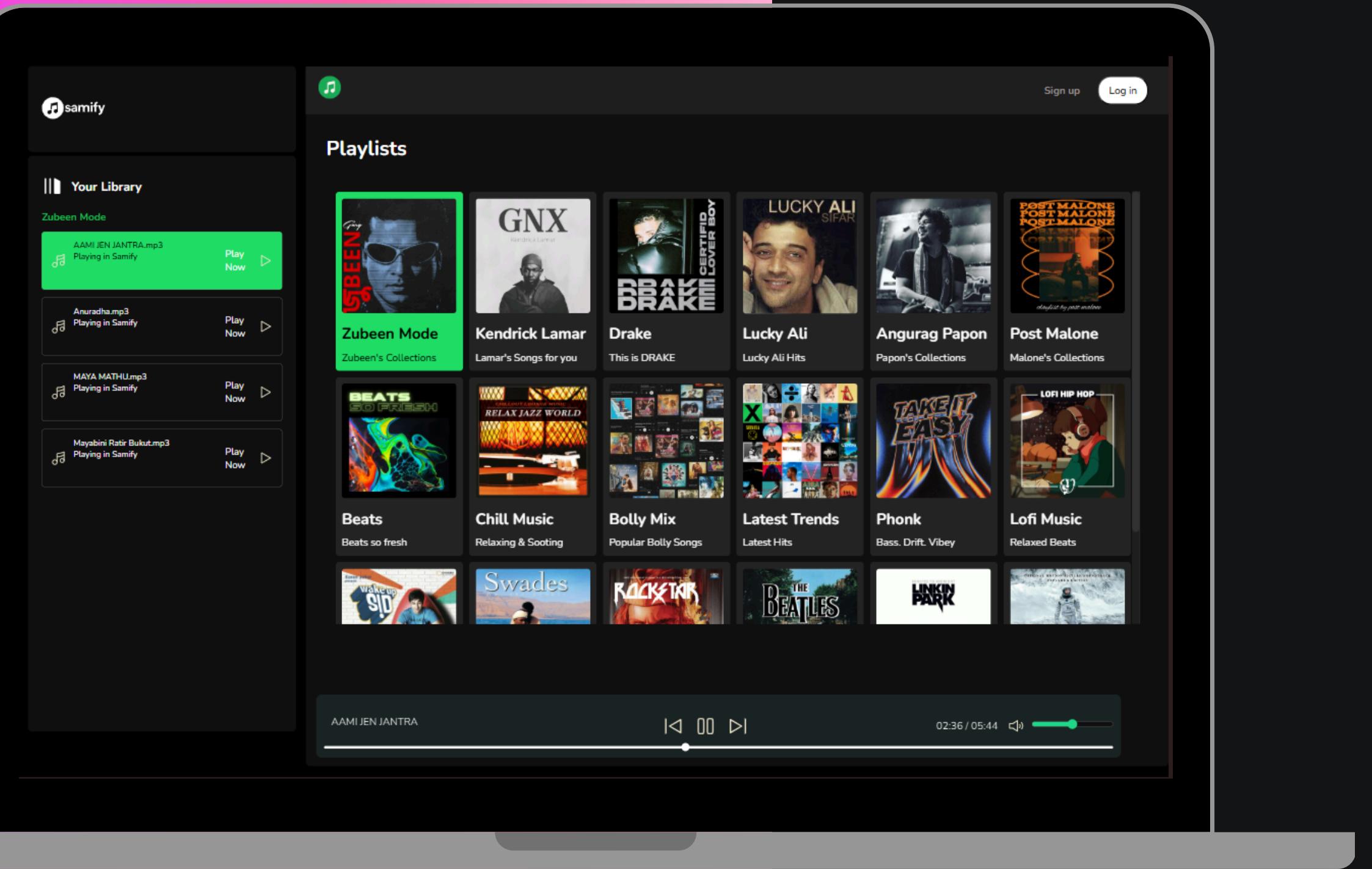
Key Functions:

- *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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