Final Project PDF – Music Playlist App

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Front-End Web Development I

12/9/2025

1. Features and Functionality

The Music Playlist App is a multi-page interactive web application designed to demonstrate core JavaScript concepts. Those pages include:

- Home Page: Introduces the app with navigation links and a clean layout.

- About Page: Explains the purpose of the app and its features, with dynamic content.

- Playlist Page: Allows users to add songs, mark favorites, search/filter, and delete songs.

- Contact Page: Provides a form for user feedback with JavaScript-driven validation.

Key Features:

- Add songs with title, artist, and optional URL.

- Mark songs as favorites and toggle their visibility.

- Search and filter songs dynamically.

- Delete songs from the playlist.

- Validate contact form inputs in real time.

2. How does JavaScript Enhances the User Experience?

JavaScript is used throughout the app to make it dynamic and engaging:

- Event Handling: There are buttons, form submissions, and search inputs that respond instantly to user actions.

- DOM Manipulation: Playlist will update immediately when songs are added or removed.

- Conditional Logic: A favorites toggle on/off button, and form validation that checks for invalid fields.

- Loops and Functions: Arrays of songs are rendered using loops, and modular functions keep the code organized.

- Data Handling: Songs are stored in arrays of objects, making it easy to manage and update the playlist.

These features help ensure that the app feels responsive and interactive.

3. Challenges Faced and How They Were Overcome

- Playlist Rendering: Making sure songs displayed correctly after being added or deleted required careful use of loops. To fix this I added forEach loops and modular functions to handle rendering.

- Form Validation: I needed to prevent empty submissions and invalid emails. The solution was to add conditional checks and feedback messages in JavaScript.

4. Plans for Additional Features or Backend Integration

Future improvements could include:

- Saving playlists for local storage or database.

- Adding user login and personalized playlists.

- Integrating with a music API (Spotify or YouTube) for real tracks.