Final Project Proposal

CS546 Web Programming I

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Introduction

Our proposal is a web app using a music provider's (Spotify, YouTube, etc.) API in combination with OpenWeatherMap's API to make a playlist of music based on the current weather in your area. The user would just have to enter their location and our app would automatically create a playlist from their selection.

Project Features

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1. Core Implementation:
    a. Feature 1: User authentication
        i. Login with username/password
    b. Feature 2: Display Weather
        i. Use the data from OpenWeatherMap to show the weather in the area specified
    c. Feature 3: Generate Playlists
        i. Make a playlist that matches the weather.
        ii. Display playlist with each song's Artist, Song title, Album cover
    d. Feature 4: Store music/premade playlists in our database (Server-Side)
        i. Depending on how well the process of using the Music API we can just take the music's information from their side and display it. If that doesn't work out we can store the information locally and display that.
    e. Feature 5: Store song/playlist likes/dislikes in our database (Client-Side)

i. We can store information about user profiles such as playlists they saved, songs they liked/disliked (and based on that show them that song more often or not at all).

f. Feature 6: User profile page
   i. Using the information stored in the database users will see their saved playlists.
   ii. The user will generate the playlist on this page.

** if we cannot get an API and decide to store locally (From feature 4)**

g. Feature 7 - Share/Comment on different users playlist
   i. Users can see other user's profiles and comment on their pages under saved playlists
   ii. Users can share saved playlists with one another

2. Extra Implementation:
   a. Feature 1: Play music from playlists
      i. Implement a player on the website that can play the playlist
   b. Feature 2: Transition playlist based on weather change
      i. If the weather changes we can change automatically generate a new playlist for the user
   c. Feature 3: User can choose the genre or we generate multiple genres
      i. We generating the playlist the user can select the genre
      ii. Or we generate different playlists with different genres
   d. Feature 4: Share similar playlists with other users
      i. If a user has a saved playlist then we can recommend them other saved playlists that are similar