

Introduction to Software Systems

Project Phase 2: Javascript

Concerned TAs

Tanmay Goyal (tanmay.g@research.iiit.ac.in)

Vedant Parekh (vedant.p@research.iiit.ac.in)

Instructions

Maximum Marks: **100**

- For queries, reach out only to the concerned TAs via Moodle under the announcement thread of this project phase.
 - Submissions should be made only on the GitHub repository.
 - You are allowed to make reasonable assumptions wherever you feel necessary, but you must document your assumptions in a file named ASSUMPTIONS.md in your repository.
 - Since this is a team project, your repository's commit history will be checked during evaluation to make sure both members contributed equally. So make sure both members commit to the repository from their own accounts.
 - The use of any external JavaScript libraries is prohibited
 - Certain effects and animations can be achieved using CSS. However, you are required to use JS for such effects.
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Overview

The aim of the project is to enhance the capabilities of your **Internet Music Database** website using the power of JavaScript. Specifically, the website will now have the ability to retrieve accurate information from the iTunes API, and a search feature will be implemented. In addition, a dedicated page will be created to showcase your personal favourite artist, complete with a built-in review system for visitors to provide feedback.

Requirements

1. Navbar Effects (5 Marks)

Incorporate a hover effect into the navbar you designed in the previous phase. When users hover over the links leading to different pages (Home, artists, etc.), the color of the link/button text should change. Additionally, update the navbar to include links to the new *Search* and *Artist Spotlight* pages, which will be described in the requirements below.

2. Typing effect (5 marks)

The typing effect is a visual effect that creates the illusion of text being typed out one character at a time. You are required to add this effect to your website in at least one location of your choosing. This effect must be achieved using JS only.

3. Search Page (45 marks)

a. Make a new page with a search bar and a button to search. **(5 marks)**

b. **iTunes API (15 marks)**

Use the iTunes API to add functionality to your search bar. The search term entered by the user in the search bar must be queried through the iTunes API, and the first 10 results must be displayed on your webpage. Your website must be able to handle cases where no results or results fewer than 10 are returned. The following details for each result from the API must be displayed:

- Track Name

- Artist Name
- Album Poster (Artwork)

You are free to display any other attributes of your choosing.

Link to documentation:

<https://developer.apple.com/library/archive/documentation/AudioVideo/Conceptual/iTuneSearchAPI/index.html>

c. Preview Audio Snippet (10 marks)

Enable users to play audio clips for all the search results (returned in the above requirement) that contain a playable audio clip.



d. Filtering (15 marks)

Allow users to filter the search results on the following criteria:

1. Duration of the song (The maximum time in minutes must be specified by the user)
2. Explicitness (Users must be able to filter explicit results - explicit vs not explicit)

There should be an option to remove all filters. Additionally, the user should be able to use both filters together.

4. Artist Spotlight Page (45 Marks)

- a. Make a simple page displaying your favourite artist. Include a picture and a short description of the same. **(5 marks)**

b. Animation (10 marks)

Add a zoom-in/zoom-out animation to the artist's image.

c. Reviews (20 marks)

Users should be able to review the artists and rate them on a 5-star scale. The rating mechanism should involve the usage of radio buttons. Store the rating, review and the name of the user (who has reviewed) in the form of a dictionary. Display all of this information in the form of a table on the same web page. The above information (data about reviews, users, and ratings) need not be retained after the web page is refreshed.

d. Countdown Timer (10 marks)

Display a timer, counting down to the release of an upcoming album/song of the artist (the date should be no sooner than the end of May 2023). If no such release date is available, use the date "30th June 2023 00:00."