Music Library

Project Outline

This project covers the idea of understanding and implementing jquery framework with ajax. The objective of the project is to use ajax to get iTunes Search API, get the json data and use it to design the single page application.

Objectives

- Improve Knowledge of API consumption
- Improve knowledge of Jquery library
- Improve knowledge of AJAX
- Improve knowledge in JSON
- Understanding when to use JSONP
- Understand the difference between JSON and JSONP

Project requirements

The project requested by the company can be divided into two parts, one is the part of the search engine, and the other of the results:

- The web must be dynamic and the actions will be carried out without reloading the page.
- The search engine must implement the following options:
  - Search songs by name
  - Search artists by name
  - Search albums by name
  - Search music videos by nameT

- In addition the following parameters must be applicable to each search:
  - Filter by country
  - Filter by explicit content
  - Filter by result limit

In addition the result obtained through the search engine are to be stored in classes. So, in this project there are 4 broad classes. These classes are for:

1. Songs
2. Albums
3. Music video
4. Artists
5. Search engine

Scope of the Project

The scope of the project is to understand the use of jquery extensively and use the knowledge to make an efficient and clean readable code for the SPA. In addition it is also to further the knowledge of jquery using classes. The project is not limited to just expanding knowledge of jquery and classes but also to improve the understanding in AJAX api calls.

Tools

The following tools were used for the execution of the project. These tools where necessary and required for the project implementation:

- GIT workflow, for smooth control and development of the project
- NPM, to install various modules required for the project
- WEBPACK dependency manager, to manage and work as a one stop gap for all the dependencies required for the project
- AJAX
- Jquery
- Bootstrap
- SCss

Points to keep in mind

The following aspects are necessary to keep in mind while executing the project
- Implementing good practices with GIT, it is important that you pay attention to the number of commits as well as their content.
- Make use of the AJAX library to make requests to the Image API
- Bundles manager could be used to further improve our knowledge in handling various packages and also develop codes in more professional manner
- Create a clear and orderly directory structure
- Use jQuery for the entire project development
- Implement all functionalities on the same screen dynamically
- Make use of third-party API's to solve the project
- Additional search parameters will be optional when performed, may or may not be applied individually (visual example in the wireframe)
- The web will have to be responsive and compatible with the main browsers in the market
- The search must be carried out each time the input changes, that is, each time a character is entered, the page will show the content found.
- Any item found by a search can be added to favorites and will be displayed in the favorites section (example in the wireframe)

- Items previously found may be deleted from favorites
- Favorite items should be stored in localStorage
- All code included comments need to be write in English
- Use a code style like camelCase
- In the case of using HTML never use inline styles
- In the case of using different programming language always define the implementation in separate terms
- It is recommended to divide the tasks into several subtasks so that you can associate each particular step of the construction with a specific commitment.
- For the project documentation a PDF version is required within the repository
- You should try as much as possible that the commits and planned tasks are the same
- Delete unused files

Project Calendar

This section describes the project calendar or the estimated delivery times needed for the project;

Deliverable	Estimated Time	Date
NPM install	05 mins	13/12/2019
Webpack dependencies	2-5 mins for each dependency	13-20/12/2019
Create classes	30 mins	15/12/2019
AJAX country codes	1-2 hrs	15/12/2019
AJAX itunes api	5-8 hrs	15-17/12/2019
Bootstrap	1-2 hrs	17/12/2019
Dynamic element jquery	8-12 hrs	16-20/12/2019
Sass	1-2 hrs	15-20/12/2019
Documentation	30mins-1hr	22/12/2019

Risk Management

Following are the risks associated with the execution of the project:

Risk	Risk level
Implementation of classes	Low
AJAX get songs, country	High
Classes	Medium to High
Webpack and es6	Medium
Putting together the whole project	Medium

After the risks have been pointed out, it is important to show the following calendar which will guide the project all through out. The following shows the list of the tasks to be performed with the details of the tasks to be performed including difficulty and priority level. Difficulty level is explained on a scale of 1 to 5 (5 being the most difficult). Priority is explained on the level of 1 to 5 (again 5 the highest parameter being the most prioritized work).

Tasks	Priority	Difficulty
Get songs from api	5	2
Install necessary dependencies	4	2
Use es6	4	1
Use classes in jquery	4	3
Dynamic jquery elements	3	4