

## **TASK**

# **Capstone Project I**

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## Introduction

#### **WELCOME TO THE CAPSTONE PROJECT!**

This Capstone Project allows you an opportunity to showcase the skills you have learnt. This project could be a valuable addition to your online portfolio.

#### THE TASK AT HAND

For this Capstone Project, you are tasked with creating a full-stack web application using React and Express. You will also need to deploy your app to Heroku or another similar platform. To be able to successfully do this, you will need to consolidate all the concepts you have learned about Express, Restful APIs, the Fetch API, React, and JavaScript.

Create a full-stack web application that interfaces with the iTunes Search API: <a href="https://developer.apple.com/library/archive/documentation/AudioVideo/Conceptual/iTuneSearchAPI/index.html#//apple\_ref/doc/uid/TP40017632-CH3-SW1">https://developer.apple.com/library/archive/documentation/AudioVideo/Conceptual/iTuneSearchAPI/index.html#//apple\_ref/doc/uid/TP40017632-CH3-SW1</a>.

The application should allow users to search for content within the iTunes Store and Apple Books Store. The user should be able to create a list of 'favourites'.

Your web application should meet the following criteria:

- 1. It should be a full-stack web application created using React and Express.
- 2. Your code for interfacing with the third-party API (iTunes Search API) should be handled by the back-end of your application.
- 3. The front-end of your application should provide an attractive user interface that allows users to enter search criteria. The user should be able to enter a search term and also select the type of media they want to search for (e.g. movie, podcast, music, audiobook, short film, TV show, software, ebook, or all). The results of the search should be attractively displayed.
- 4. A user should be able to create a list of their favourite content. The user should be able to remove an item from their list of favourites. The list of the user's favourite content should also be attractively displayed. The list of favourite content need not be remembered when the user navigates away from or leaves your web application.
- 5. The UI should be attractive, easy to use and intuitive.
- 6. You should ensure that your application has been appropriately tested. You should include at least one snapshot test and appropriate unit tests for both the front-end and back-end of the application.

- 7. Use **Helmet** to help you secure your Express app.
- 8. A code reviewer should be able to launch your app by typing 'npm start' from the command line interface.
- 9. The file structure of the project should be well-organised and easy to understand and use.
- 10. Your code should be well documented with appropriate comments. The code should also be easy to read, adhering to **Google's style guide** about indentation, meaningful variables and component names etc.
- 11. The project should include a file called "readme.md" which includes:
  - a. An explanation of how to use the app.
  - b. Clear instructions that an end-user will be able to follow to install, test, and run your app on their local machine.
  - c. A description of the measures you have taken to ensure the security of this app, including a description of how API keys have been dealt with.
  - d. A link to the deployed app.

#### Project limitations:

- 1. You do not have to authenticate users at this stage.
- 2. You do not have to create a database for this application. You will learn to work with databases in the upcoming tasks.
- 3. No information about the users of your application or their previous interaction with your application will be stored or 'remembered' by your application after the user leaves the app.

## **Instructions**

- This project involves creating apps that need some modules to run. These modules are located in a folder called 'node\_modules', which is created when you run the following command from your command line or terminal: 'npx create-react-app my-app-name' or similar. Please note that this folder typically contains hundreds of files which, if you're working directly from Dropbox, has the potential to *slow down Dropbox sync and possibly your computer*. As a result, please follow this process when creating/running such apps:
  - Create the app on your local machine (outside of Dropbox) by following the instructions in the compulsory task.
  - When you're ready to have a reviewer review the app, please *delete* the node modules folder.
  - Compress the folder and upload it to Dropbox. Your reviewer will, in turn, decompress the folder, install the necessary modules and run the app from their local machine.
- Additional reading:

https://affiliate.itunes.apple.com/resources/documentation/itunes-store -web-service-search-api/

## **Compulsory Task 1**

Follow these steps:

• Create a full-stack web application that interfaces with the iTunes Search API:

https://affiliate.itunes.apple.com/resources/documentation/itunes-store -web-service-search-api/

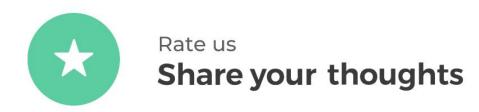
The application should allow the user to search for content within the iTunes Store and Apple Books Store. The user should be able to create a list of 'favourites'

- Ensure that the application adheres to ALL the criteria listed previously for this Capstone Project.
- Once this project is complete, push it to GitHub.
- Deploy your app. Add the link to your deployed application to the **readme.md** file of your project.

# Completed the task(s)?

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