

IMY 220

Practical 6:

Node.js

Due: Friday 30 September @ 9:30

The submission instructions are available on ClickUP. Any deviation from these instructions will cause a 10% deduction from your mark.

Instructions

- The aim of this practical is to use Node.js to read the contents of a **JSON** file and print the data to an **HTML** file. Download the JSON file (*events.json*) from ClickUP.
- All of your code for this practical must be written inside your own JS files called *index.js* and *eventValidator.js*.
- You do not have to use NPM for this practical.

Section 1: Read from text file

Create a file called *index.js*. This file will contain the functionality for reading from the text file and printing the results to a webpage. This should work as follows:

- Create a server using Node that listens on port 8888.
- While the server is running, there must be an appropriate message that gets displayed in the command prompt.
- Read the data from the file (*events.json*) using Node fs (the built in Node library).
- Convert the data read from the file to a JS string and then parse it into a JS object using `JSON.parse`.

Section 2: eventValidator file

Create a new JS file called *eventValidator.js*. This file will export two different functions, each function checking for a specific part of the event. This should work as follows:

- This file should export a function called *checkDate()*. This function should take a date (string) as its only parameter and return true or false depending on whether the date falls between September 9th and September 21st. The second date of the range should be included, and the first date should not.
- The second function to be exported in this file is called *checkName()*. This function should take a name (string) as its only parameter and check if the name of the event contains any special characters (i.e., anything that is not a letter). You should make use of regular expressions (regex) for this part.

Section 3: Display results

With the server from Section 1, print a formatted table with table header elements as follows:

Event name	Event description	Event date	Event details
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You must then print out results for each event in the file. This must work as follows:

- Use a foreach-loop to print the array of JS objects into formatted table rows.
- The “Event details” column should give additional information about the event; this includes whether the title of the event contains special characters and whether the date falls in the correct date range (September 9th to September 21st). If not, it must show an appropriate error message instead. To accomplish this, you must include *eventValidator.js* in *index.js* and use the *checkDate()* and *checkName()* function that is exported by *eventValidator.js* inside *index.js*. (You may not duplicate the functionality of these functions inside *index.js*.)
- The result should look something like this:

Event name	Event description	Event date	Event details
Picnic	Picnic in the park	2022/09/11	Event is in the date range, This is a valid event title
Rock concert	Rock concert at the football stadium	2022/09/21	Event is in the date range, This is a valid event title
Golf day!	Picnic in the park	2022/09/09	Event not in the date range, This is not a valid title
Braai in the park	braai at the community swimming pool	2022/09/22	Event not in the date range, This is a valid event title
Festival	Summer music festival with a lot of artists performing	2022/09/14	Event is in the date range, This is a valid event title
Quiz night @ Bennies	Quiz night at Bennie's pub	2022/09/13	Event is in the date range, This is not a valid title
#Fundraiser fun marathon!	Raising money for a very good cause!	2022/09/24	Event not in the date range, This is not a valid title

Submit ONLY the following file(s) according to the submission instructions.

- *index.js*
- *eventValidator.js*