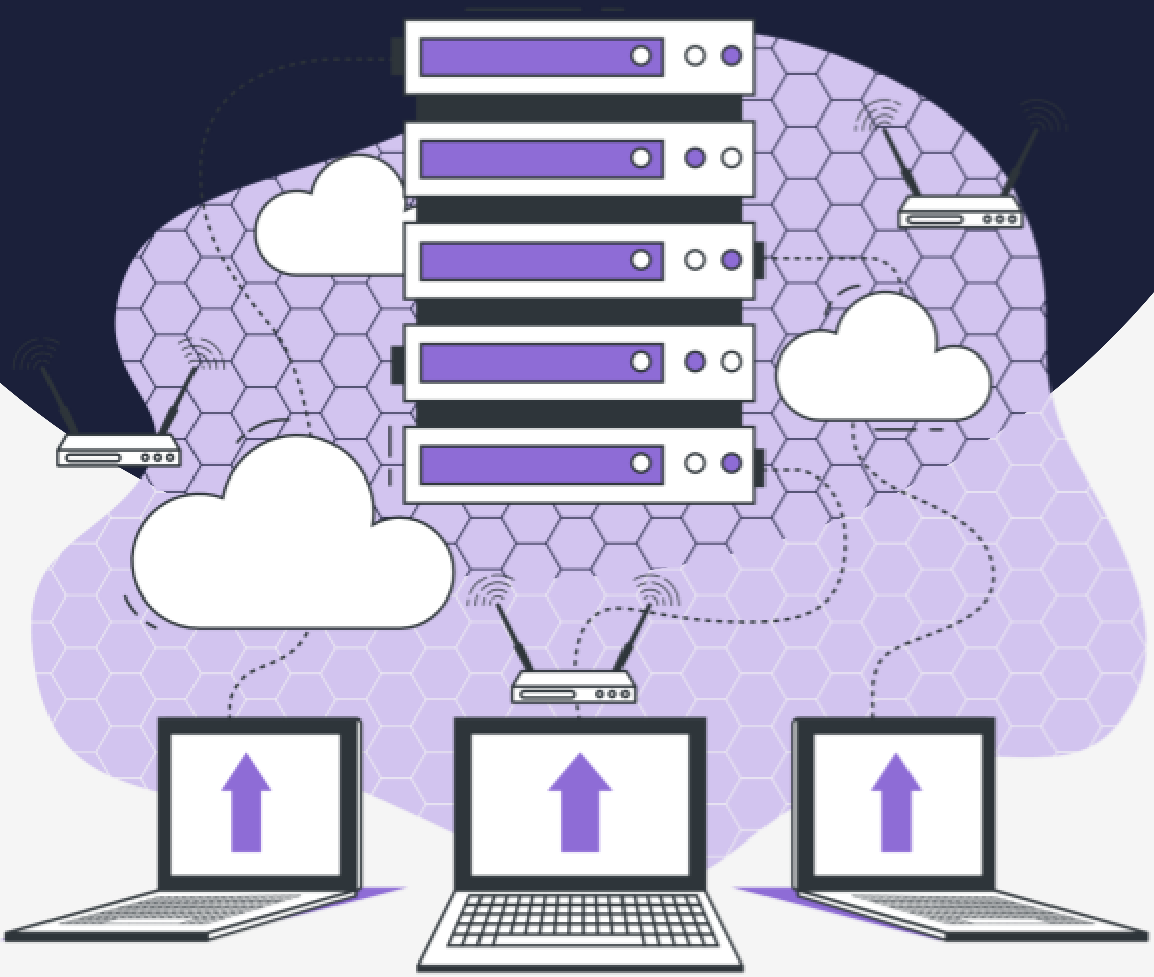
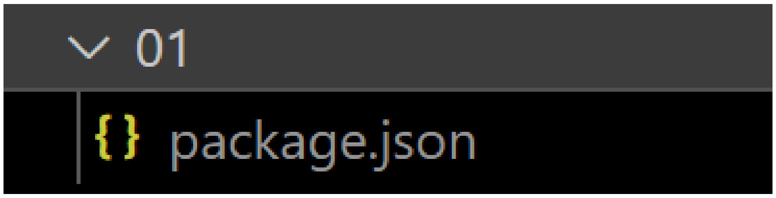
nodejs

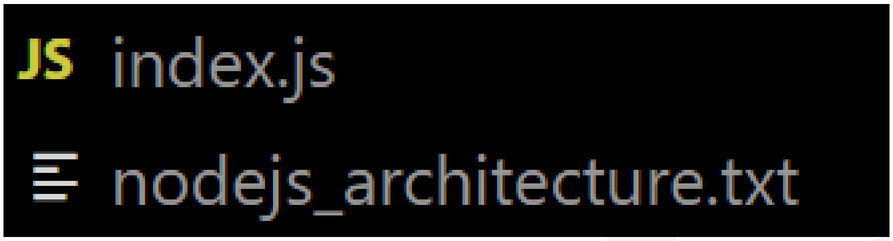
Assignment



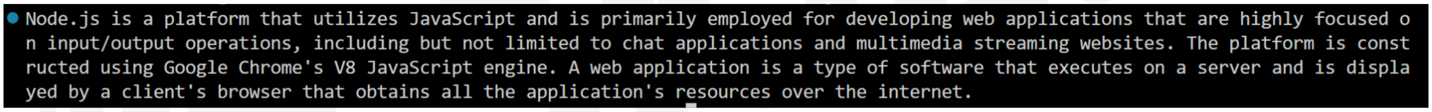
1. In this coding challenge, your task is to create a package.json file for your project using the npm init command. The package.json file is essential for managing dependencies, scripts, and other project-related details. Below is the expected folder structure.



2. In the same project directory created in the above assignment, your task is to create a new file index.js and using the fs module add information about Node.js architecture to a new file nodejs_architecture.txt. Below are the expected files in the project folder.



3. Continuing assignment 2. Here, let's create a new file named index.js and use the fs module to read the content of nodejs_architecture.txt and print the content to the console.



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Node.js is a platform that utilizes JavaScript and is primarily employed for developing web applications that are highly focused o
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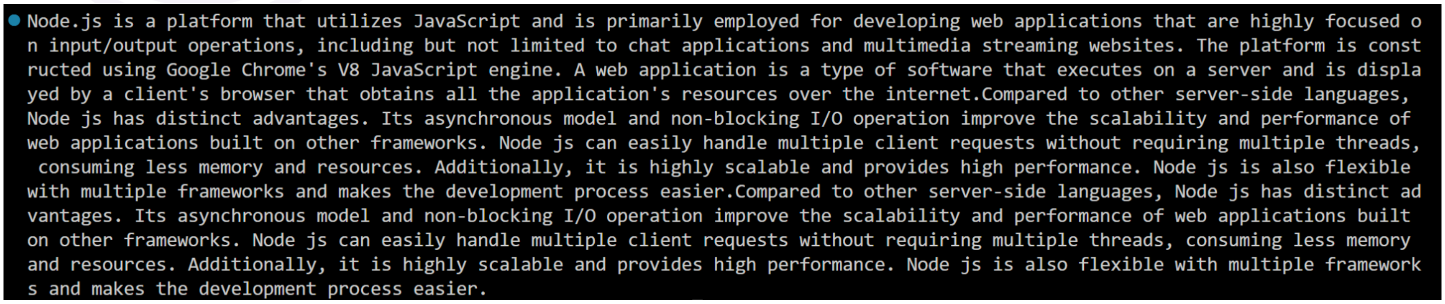
yed by a client's browser that obtains all the application's resources over the internet.
```

4. In this coding challenge, you will continue working with the file created in the previous assignments. Here your task is to access the existing nodejs_architecture.txt file and use the fs module to append additional data to it. Specifically, add some advantages of Node.js to the file and print the file content to the console.



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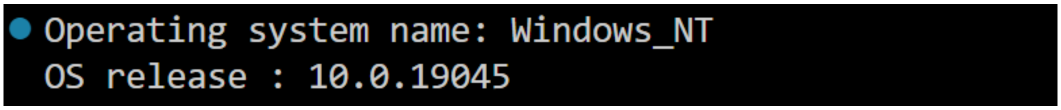
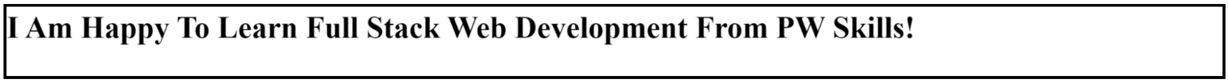
5. To wind up the fs module walk-through challenges, let's delete the nodejs_architecture.txt file. On deletion print "File Deleted SuccessFully" to the console.

6. Assume a situation where our server restricts access to its configuration via the user interface. The only way to obtain the OS and release information is through a programmatic approach. In this challenge, you are expected to use the os module and print the os name and the os-release version to the console.



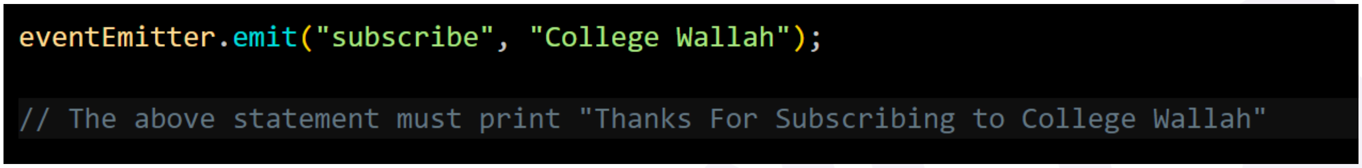
```
● Operating system name: Windows_NT
  OS release : 10.0.19045
```

7. In this challenge, you are required to use Node.js and the built-in HTTP module to create a server that displays the text "I Am Happy To Learn Full Stack Web Development From PW Skills!" on the browser screen. The goal is to utilize the HTTP module to create an HTTP server, set the port, appropriate content type, and send the message as a response to the client's request, allowing it to display on the browser.



I Am Happy To Learn Full Stack Web Development From PW Skills!

8. Let's simulate a subscription feature similar to YouTube. Using the events module, we'll create a custom event named "subscribe". When this event is triggered, it should display a message in the console indicating that the user has subscribed.

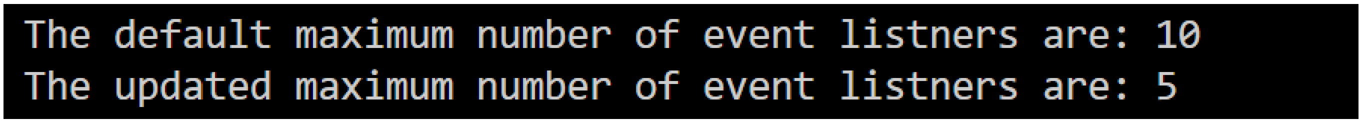


```
eventEmitter.emit("subscribe", "College Wallah");

// The above statement must print "Thanks For Subscribing to College Wallah"
```

9. While working with the events module, one interesting observation is that when an event is created and called, the associated event handler is triggered. However, what happens if we remove an event and then try to call it? In this coding challenge let's create an event handler and call it. Later let's remove the event handler and observe what happens when we call it.

10. In continuation of the 8th question, let's now explore the concept of the maximum number of listeners allowed for event handlers. For this coding challenge, your task is to determine the current maximum number of event listeners associated with an event and then set the maximum number of event listeners to 5. Note that the default maximum number of listeners might vary. Your task is to limit the number of listeners to 5.



```
The default maximum number of event listners are: 10
The updated maximum number of event listners are: 5
```