Lesson 03 Demo 06

Declaring and Initializing a HashMap

Objective: To demonstrate HashMap operations in JavaScript by declaring, initializing, and using key-value pairs to store and retrieve data efficiently for dynamic data access

Tools required: Visual Studio Code and Node.js

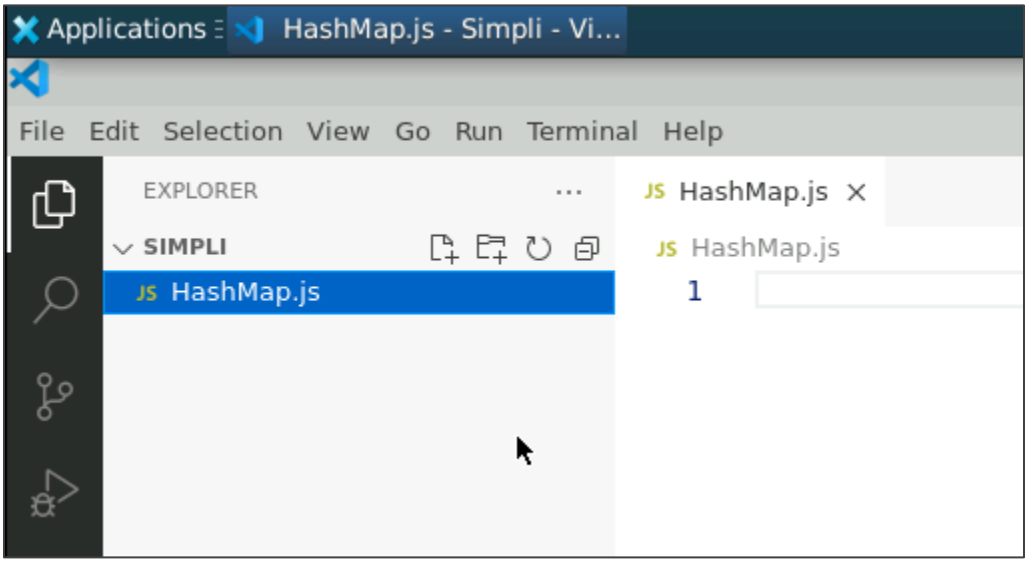
Prerequisites: A basic understanding of data structures and JavaScript

Steps to be followed:

1. Create a JavaScript file and execute it

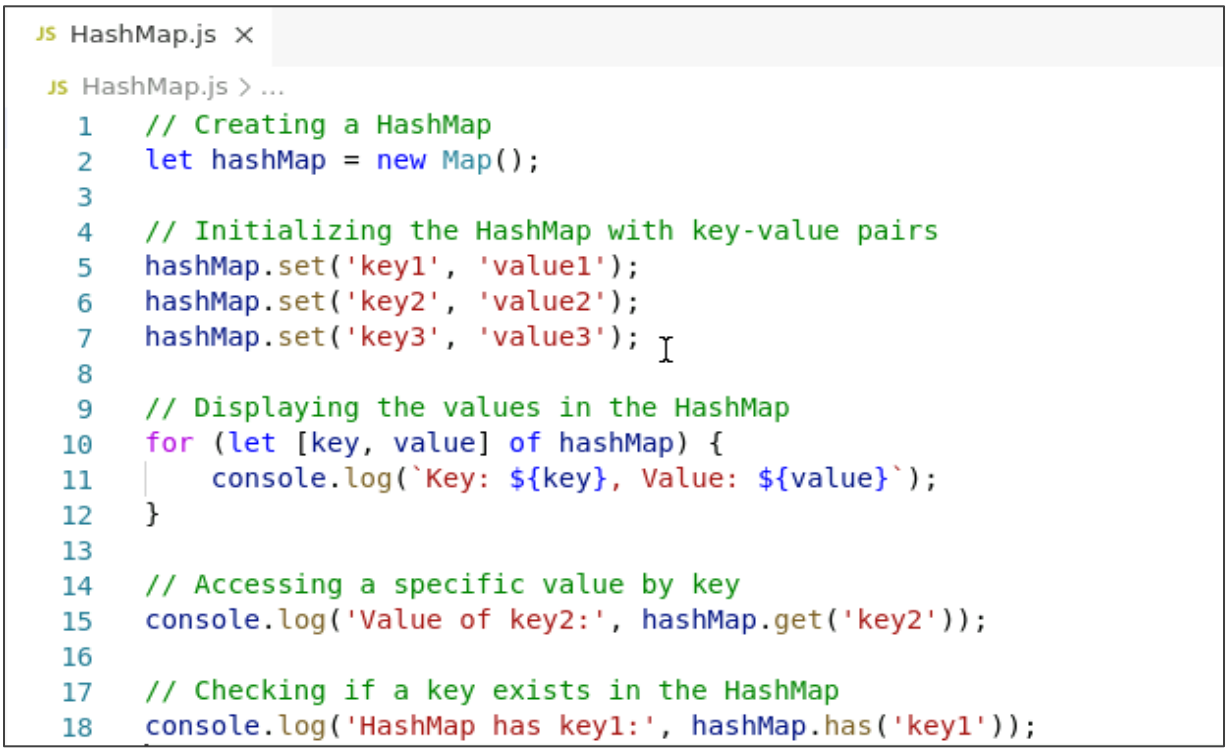
Step 1: Create a JavaScript file and execute it

1.1 Open the Visual Studio Code editor and create a JavaScript file named **HashMap.js**



1.2 Add the following code to the file:

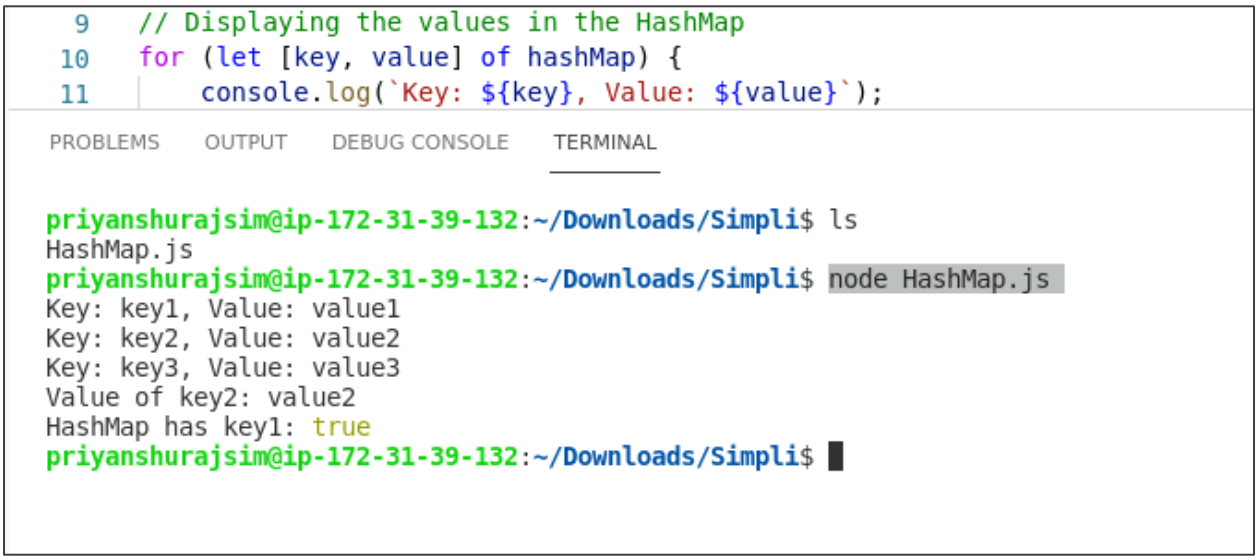
```
// Creating a HashMap
let hashMap = new Map();

// Initializing the HashMap with key-value pairs
hashMap.set('key1', 'value1');
hashMap.set('key2', 'value2');
hashMap.set('key3', 'value3');

// Displaying the values in the HashMap
for (let [key, value] of hashMap) {
   console.log(`Key: ${key}, Value: ${value}`);
}

// Accessing a specific value by key
console.log('Value of key2:', hashMap.get('key2'));

// Checking if a key exists in the HashMap
console.log('HashMap has key1:', hashMap.has('key1'));
```



1.3 Press **Ctrl** + **S** to save the file and execute it in the **TERMINAL** using the commands given below:

ls

node HashMap.js



By following these steps, you have effectively learned to create and manipulate a HashMap in JavaScript to store and retrieve data efficiently for dynamic data access, improving your ability to efficiently manage key-value pair data structures.