

Lab-Assignment#2

Group-6 Harshpreet Kaur, Harshita Kashyap

Georgian@ilac

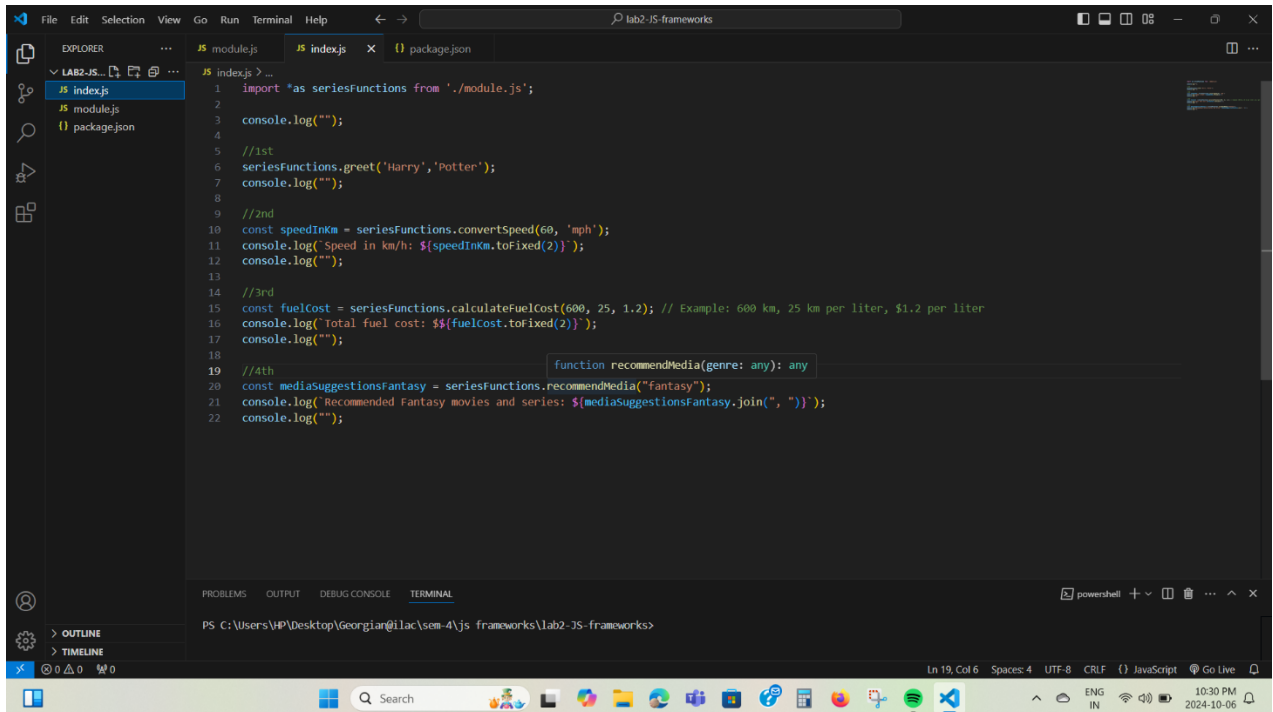
COMP2068 JavaScript Frameworks

Anmar Jarjees

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## 1. Index.js

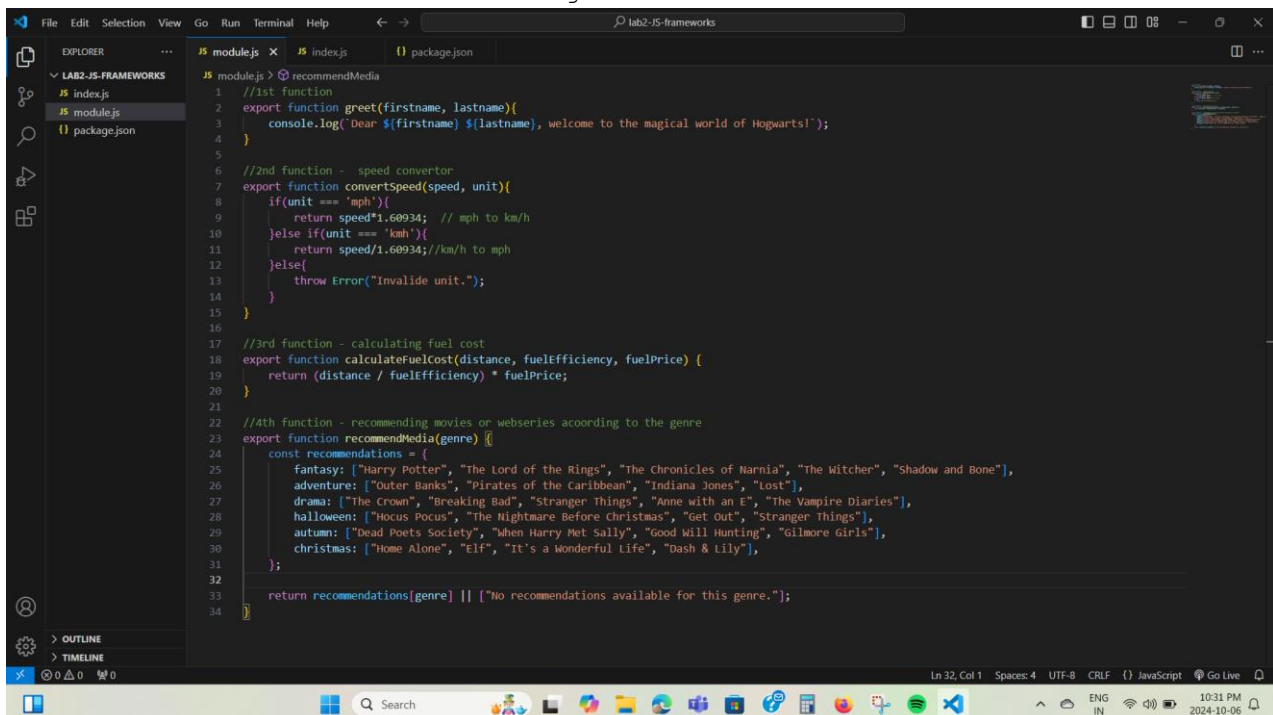
- Imports functions from module.js.
- Executes functions for greeting, speed conversion, fuel cost calculation, and media recommendations.
- Displays output in the console.

A screenshot of the Visual Studio Code editor. The Explorer sidebar on the left shows a project named 'LAB2-JS-...' with files 'index.js', 'module.js', and 'package.json'. The 'index.js' file is selected and its content is displayed in the main editor. The code imports 'seriesFunctions' from './module.js' and uses them to greet 'Harry Potter', convert 60 mph to km/h, calculate fuel cost for 600 km at 25 km/l and \$1.2/l, and recommend fantasy movies. A tooltip for 'function recommendMedia(genre: any): any' is visible over line 19. The bottom panel shows the 'TERMINAL' with the command prompt 'PS C:\Users\VP\Desktop\Georgian@ilac\sem-4\js-frameworks\lab2-js-frameworks>'.

```
1 import * as seriesFunctions from './module.js';
2
3 console.log("");
4
5 //1st
6 seriesFunctions.greet('Harry', 'Potter');
7 console.log("");
8
9 //2nd
10 const speedInKm = seriesFunctions.convertSpeed(60, 'mph');
11 console.log(`Speed in km/h: ${speedInKm.toFixed(2)}`);
12 console.log("");
13
14 //3rd
15 const fuelCost = seriesFunctions.calculateFuelCost(600, 25, 1.2); // Example: 600 km, 25 km per liter, $1.2 per liter
16 console.log(`Total fuel cost: ${fuelCost.toFixed(2)}`);
17 console.log("");
18
19 //4th
20 const mediaSuggestionsFantasy = seriesFunctions.recommendMedia("fantasy");
21 console.log(`Recommended Fantasy movies and series: ${mediaSuggestionsFantasy.join(", ")}`);
22 console.log("");
```

## 2. Module.js

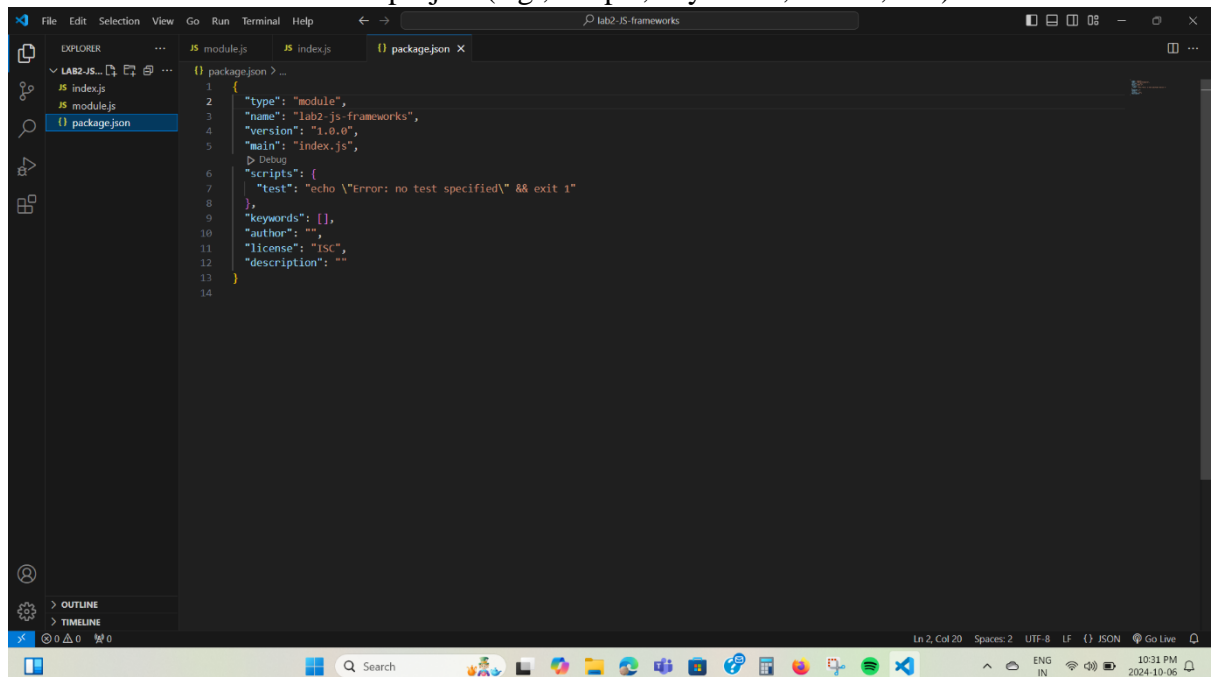
- Contains exported functions: greeting, speed conversion, fuel cost calculation, and media recommendations.
- Handles logic for various calculations and suggestions based on input.
- Returns results to be used in index.js

A screenshot of the Visual Studio Code editor. The Explorer sidebar on the left shows the same project with 'index.js', 'module.js', and 'package.json'. The 'module.js' file is selected and its content is displayed in the main editor. It exports four functions: 'greet' (takes first and last name), 'convertSpeed' (converts mph to km/h or vice versa), 'calculateFuelCost' (takes distance, efficiency, and price), and 'recommendMedia' (returns an array of media suggestions for a given genre).

```
1 //1st function
2 export function greet(firstname, lastname){
3   console.log(`Dear ${firstname} ${lastname}, welcome to the magical world of Hogwarts!`);
4 }
5
6 //2nd function - speed converter
7 export function convertSpeed(speed, unit){
8   if(unit === 'mph'){
9     return speed*1.60934; // mph to km/h
10   }else if(unit === 'kmh'){
11     return speed/1.60934;//km/h to mph
12   }else{
13     throw Error("Invalid unit.");
14   }
15 }
16
17 //3rd function - calculating fuel cost
18 export function calculateFuelCost(distance, fuelEfficiency, fuelPrice) {
19   return (distance / fuelEfficiency) * fuelPrice;
20 }
21
22 //4th function - recommending movies or webseries according to the genre
23 export function recommendMedia(genre) {
24   const recommendations = {
25     fantasy: ["Harry Potter", "The Lord of the Rings", "The Chronicles of Narnia", "The Witcher", "Shadow and Bone"],
26     adventure: ["Outer Banks", "Pirates of the Caribbean", "Indiana Jones", "Lost"],
27     drama: ["The Crown", "Breaking Bad", "Stranger Things", "Anne with an E", "The Vampire Diaries"],
28     halloween: ["Hocus Pocus", "The Nightmare Before Christmas", "Get Out", "Stranger Things"],
29     autumn: ["Dead Poets Society", "When Harry Met Sally", "Good Will Hunting", "Gilmore Girls"],
30     christmas: ["Home Alone", "Elf", "It's a Wonderful Life", "Dash & Lily"],
31   };
32
33   return recommendations[genre] || ["No recommendations available for this genre."];
34 }
```

### 3. package

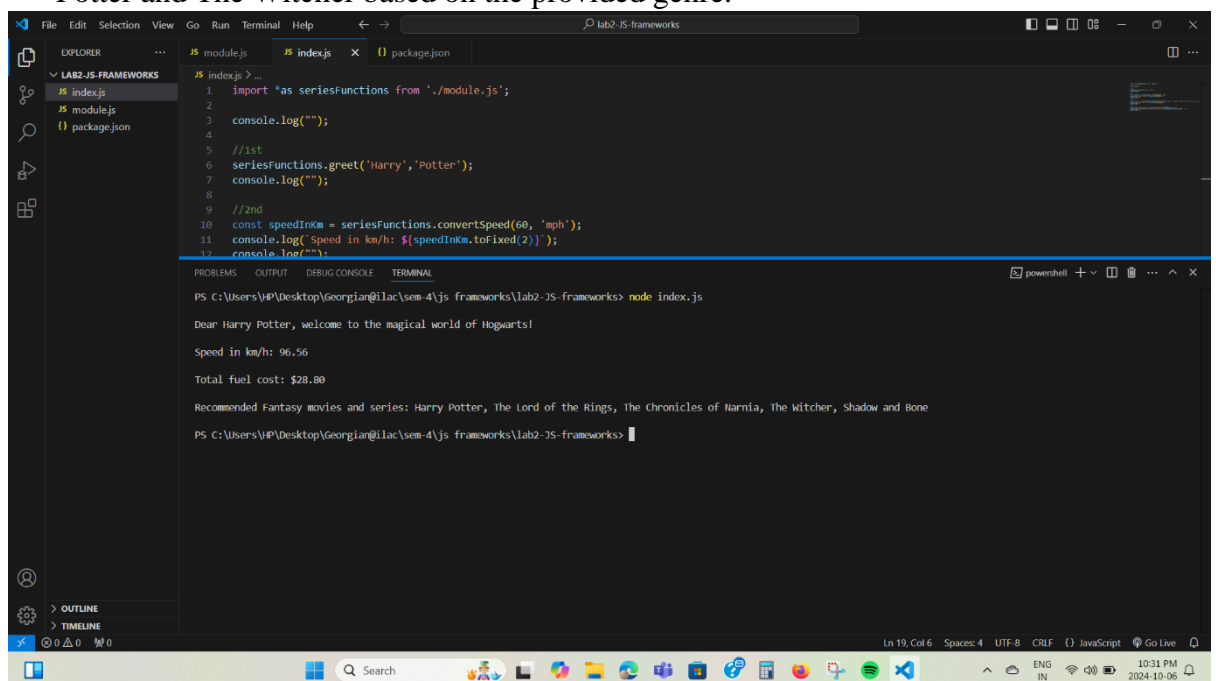
- Specifies project name, version, and entry file (`index.js`).
- Sets up the project type as a module.
- Includes metadata for the project (e.g., scripts, keywords, author, etc.)



```
1 {
2   "type": "module",
3   "name": "lab2-js-frameworks",
4   "version": "1.0.0",
5   "main": "index.js",
6   "scripts": {
7     "test": "echo \"Error: no test specified\" && exit 1"
8   },
9   "keywords": [],
10  "author": "",
11  "license": "ISC",
12  "description": ""
13 }
```

### 4. Output

- The greeting function prints a personalized message: Dear Harry Potter, welcome to the magical world of Hogwarts!
- Speed conversion outputs the value in km/h, while fuel cost calculation shows the total fuel cost for a trip.
- The media recommendation displays a list of fantasy movies and series like Harry Potter and The Witcher based on the provided genre.



```
1 import * as seriesFunctions from './module.js';
2 console.log("");
3
4 //1st
5 seriesFunctions.greet('Harry','Potter');
6 console.log("");
7
8 //2nd
9 const speedInKm = seriesFunctions.convertSpeed(60, 'mph');
10 console.log("Speed in km/h: ${speedInKm.toFixed(2)}");
11 console.log("");
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS C:\Users\VP\Desktop\Georgian@ilac\sem-4\js frameworks\lab2-js-frameworks> node index.js

Dear Harry Potter, welcome to the magical world of Hogwarts!

Speed in km/h: 96.56

Total fuel cost: $28.80

Recommended Fantasy movies and series: Harry Potter, The Lord of the Rings, The Chronicles of Narnia, The Witcher, Shadow and Bone

PS C:\Users\VP\Desktop\Georgian@ilac\sem-4\js frameworks\lab2-js-frameworks>
```