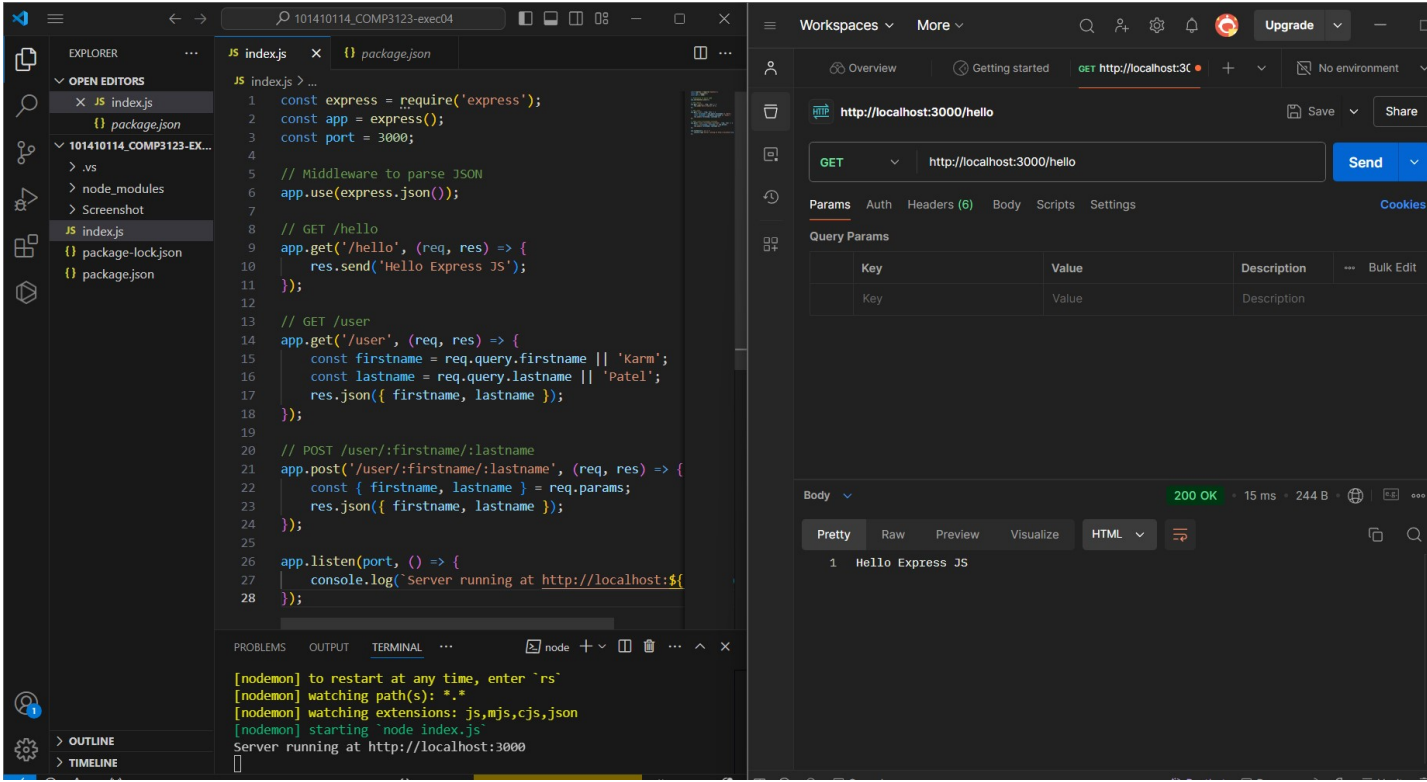


# Lab 4 ScreenShot



# Lab 4 ScreenShot

The screenshot displays the Visual Studio Code editor with a project named '101410114\_COMP3123-exec04'. The Explorer sidebar on the left shows the file structure with 'index.js' and 'package.json' open. The main editor window shows the following JavaScript code in 'index.js':

```
6 app.use(express.json());
7
8 // GET /hello
9 app.get('/hello', (req, res) => {
10   res.send('Hello Express JS');
11 });
12
13 // GET /user
14 app.get('/user', (req, res) => {
15   const firstname = req.query.firstname || 'Karm';
16   const lastname = req.query.lastname || 'Patel';
17   res.json({ firstname, lastname });
18 });
19
20 // POST /user/:firstname/:lastname
21 app.post('/user/:firstname/:lastname', (req, res) => {
22   const { firstname, lastname } = req.params;
23   res.json({ firstname, lastname });
24 });
25
26 app.listen(port, () => {
27   console.log(`Server running at http://localhost:${port}`);
28 });
```

The bottom of the editor shows the TERMINAL output:

```
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting node index.js
Server running at http://localhost:3000
```

On the right, the REST client is configured for a POST request to 'http://localhost:3000/user/Karm/Patel'. The 'Body' tab shows the JSON response:

```
{
  "firstname": "Karm",
  "lastname": "Patel"
}
```

# Lab 4 ScreenShot

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\karam> cd comp3123
PS C:\Users\karam\comp3123> mkdir 101410114_COMP3123-exec04

Directory: C:\Users\karam\comp3123

Mode                LastWriteTime         Length Name
----                -
d-----          26-09-2024         16:57          101410114_COMP3123-exec04

PS C:\Users\karam\comp3123> cd 101410114_COMP3123-exec04
PS C:\Users\karam\comp3123\101410114_COMP3123-exec04> npm init -y
Wrote to C:\Users\karam\comp3123\101410114_COMP3123-exec04\package.json:

{
  "name": "101410114_comp3123-exec04",
  "version": "1.0.0",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "description": ""
}

PS C:\Users\karam\comp3123\101410114_COMP3123-exec04> npm install express

added 65 packages, and audited 66 packages in 3s

13 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS C:\Users\karam\comp3123\101410114_COMP3123-exec04> npm install --save-dev nodemon

added 29 packages, and audited 95 packages in 3s

17 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS C:\Users\karam\comp3123\101410114_COMP3123-exec04>
```

# Lab 4 ScreenShot

The screenshot displays the Visual Studio Code (VS Code) interface with a project named '101410114\_COMP3123-exec04'. The Explorer sidebar on the left shows the file structure, including 'index.js' and 'package.json'. The main editor window displays the code in 'index.js', which is a Node.js application using Express.js. The code defines a server that listens on port 3000 and has two endpoints: a GET endpoint for '/hello' that returns 'Hello Express JS', and a GET endpoint for '/user' that returns a JSON object with 'firstname' and 'lastname' fields. The POST endpoint for '/user/:firstname/:lastname' is also defined but not shown in the snippet. The terminal at the bottom shows the server running successfully at 'http://localhost:3000'.

```
1 const express = require('express');
2 const app = express();
3 const port = 3000;
4
5 // Middleware to parse JSON
6 app.use(express.json());
7
8 // GET /hello
9 app.get('/hello', (req, res) => {
10   res.send('Hello Express JS');
11 });
12
13 // GET /user
14 app.get('/user', (req, res) => {
15   const firstname = req.query.firstname || 'Karm';
16   const lastname = req.query.lastname || 'Patel';
17   res.json({ firstname, lastname });
18 });
19
20 // POST /user/:firstname/:lastname
21 app.post('/user/:firstname/:lastname', (req, res) => {
22   const { firstname, lastname } = req.params;
23   res.json({ firstname, lastname });
24 });
25
26 app.listen(port, () => {
27   console.log('Server running at http://localhost:3000');
28 });
```

The REST client interface on the right shows a GET request to 'http://localhost:3000/user'. The response body is displayed in JSON format:

```
{
  "firstname": "Karm",
  "lastname": "Patel"
}
```

The terminal output shows the following messages:

```
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node index.js`
Server running at http://localhost:3000
```