

CSI3023

Advanced Server -Side Programming

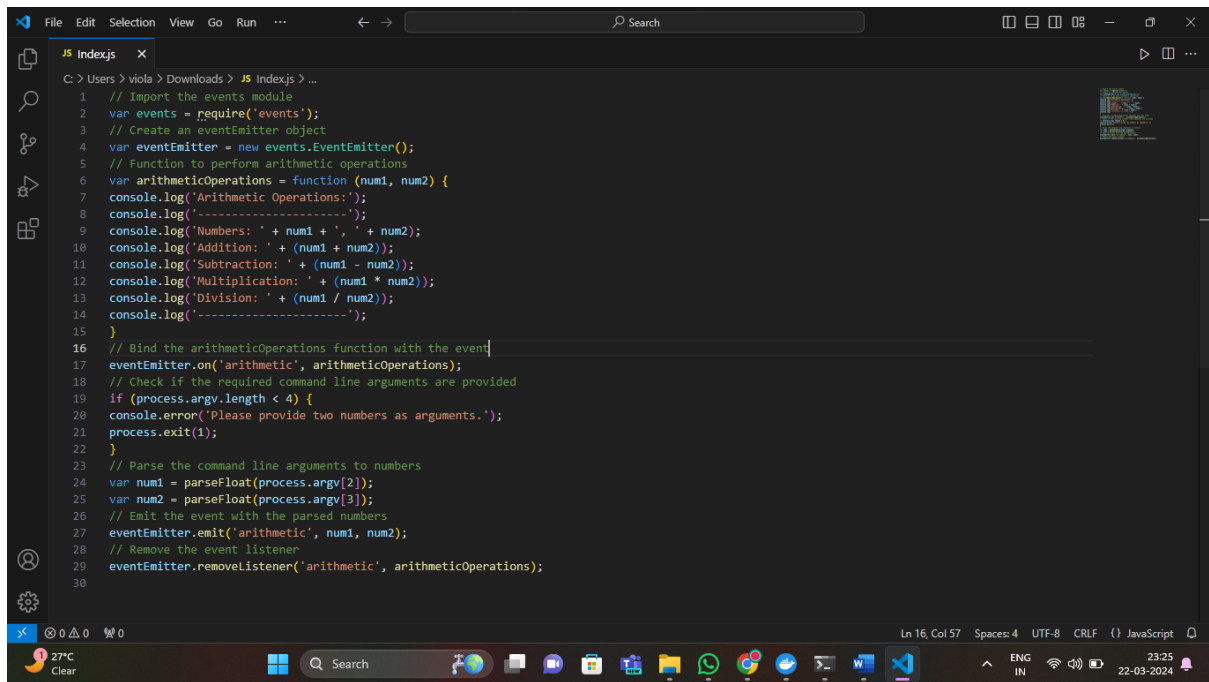
Winter Semester 2023 – '24

Digital Assignment - 6

SARAGA S
20MIC0081

CODE:

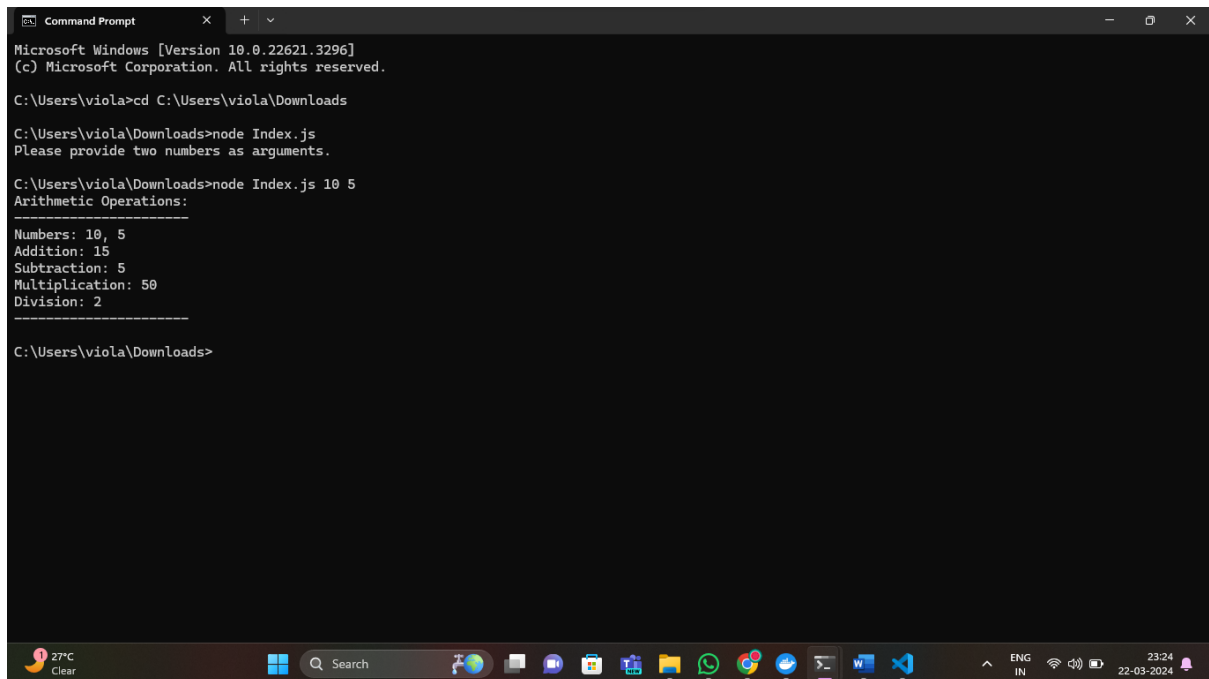
```
// Import the events module
var events = require('events');
// Create an EventEmitter object
var EventEmitter = new events.EventEmitter();
// Function to perform arithmetic operations
var arithmeticOperations = function (num1, num2) {
  console.log('Arithmetic Operations:');
  console.log('-----');
  console.log('Numbers: ' + num1 + ', ' + num2);
  console.log('Addition: ' + (num1 + num2));
  console.log('Subtraction: ' + (num1 - num2));
  console.log('Multiplication: ' + (num1 * num2));
  console.log('Division: ' + (num1 / num2));
  console.log('-----');
}
// Bind the arithmeticOperations function with the event
EventEmitter.on('arithmetic', arithmeticOperations);
// Check if the required command line arguments are provided
if (process.argv.length < 4) {
  console.error('Please provide two numbers as arguments.');
  process.exit(1);
}
// Parse the command line arguments to numbers
var num1 = parseFloat(process.argv[2]);
var num2 = parseFloat(process.argv[3]);
// Emit the event with the parsed numbers
EventEmitter.emit('arithmetic', num1, num2);
// Remove the event listener
EventEmitter.removeListener('arithmetic', arithmeticOperations);
```



The screenshot shows the Visual Studio Code editor with a file named `Index.js` open. The file is located at `C:\Users\viola\Downloads\Index.js`. The code is a JavaScript file that uses the `events` module to create an event emitter and bind a function to it. The function performs arithmetic operations on two numbers provided as command-line arguments. The code is as follows:

```
1 // Import the events module
2 var events = require('events');
3 // Create an EventEmitter object
4 var EventEmitter = new events.EventEmitter();
5 // Function to perform arithmetic operations
6 var arithmeticOperations = function (num1, num2) {
7   console.log('Arithmetic Operations:');
8   console.log('-----');
9   console.log('Numbers: ' + num1 + ', ' + num2);
10  console.log('Addition: ' + (num1 + num2));
11  console.log('Subtraction: ' + (num1 - num2));
12  console.log('Multiplication: ' + (num1 * num2));
13  console.log('Division: ' + (num1 / num2));
14  console.log('-----');
15 }
16 // Bind the arithmeticOperations function with the event
17 EventEmitter.on('arithmetic', arithmeticOperations);
18 // Check if the required command line arguments are provided
19 if (process.argv.length < 4) {
20   console.error('Please provide two numbers as arguments.');
```

Output:



The screenshot shows a Windows Command Prompt window with the following output:

```
Microsoft Windows [Version 10.0.22621.3296]
(c) Microsoft Corporation. All rights reserved.

C:\Users\viola>cd C:\Users\viola\Downloads

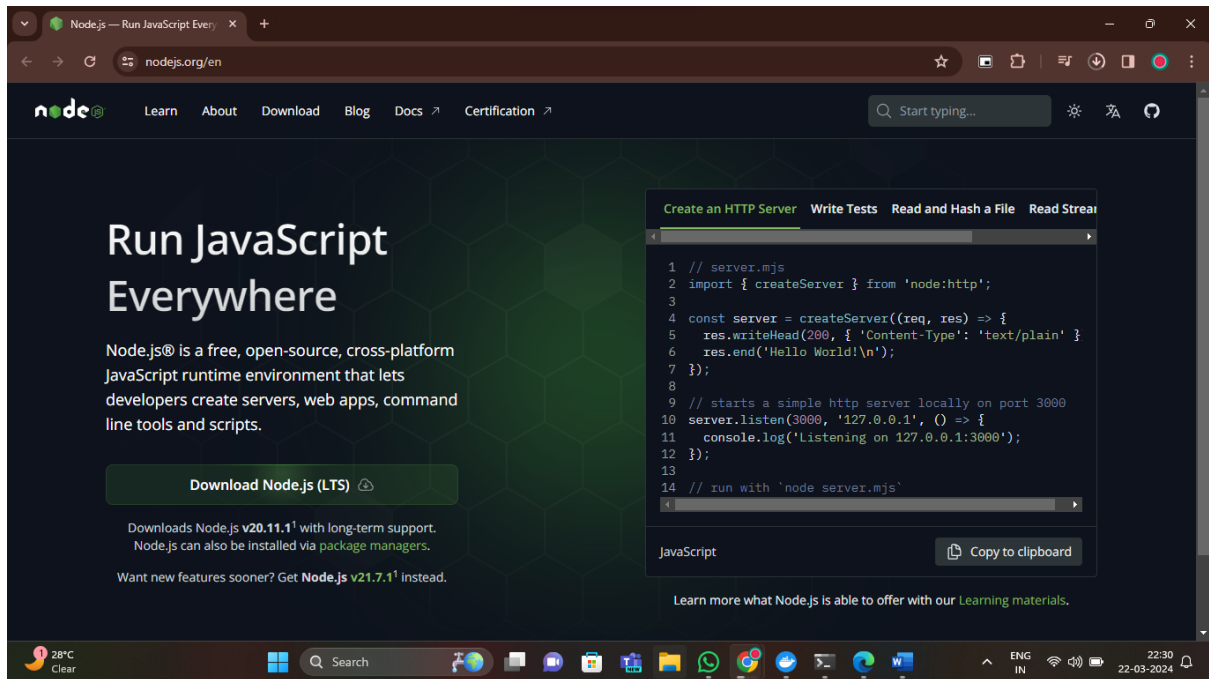
C:\Users\viola\Downloads>node Index.js
Please provide two numbers as arguments.

C:\Users\viola\Downloads>node Index.js 10 5
Arithmetic Operations:
-----
Numbers: 10, 5
Addition: 15
Subtraction: 5
Multiplication: 50
Division: 2
-----

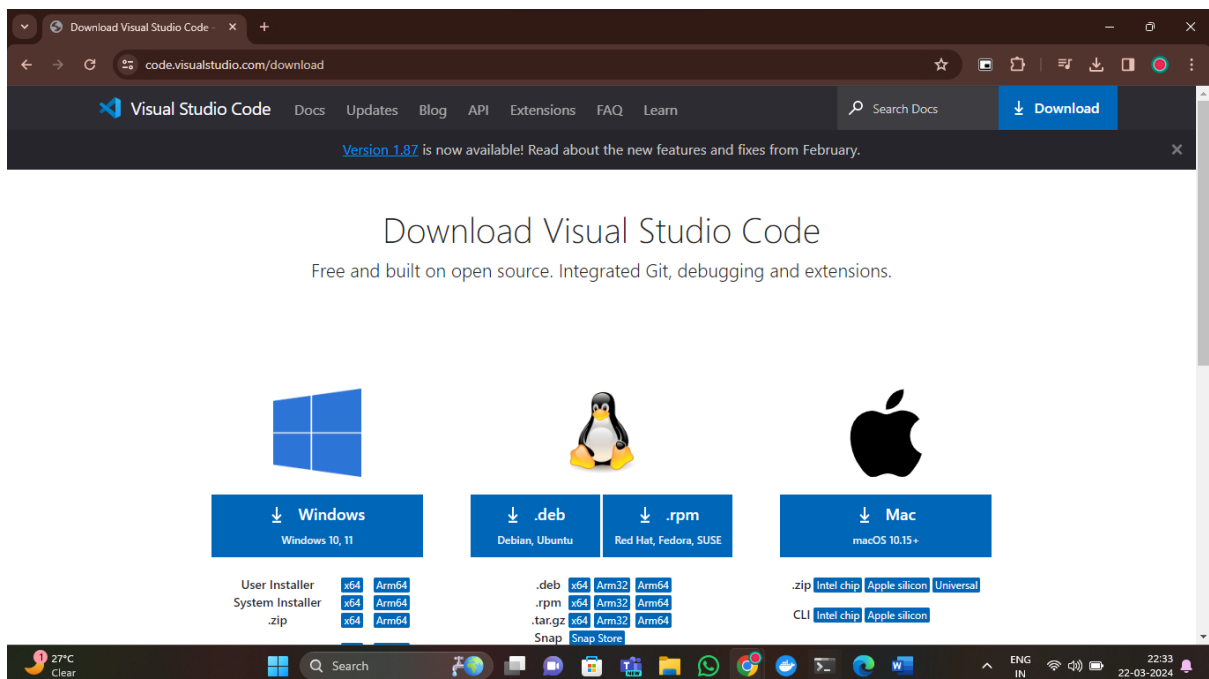
C:\Users\viola\Downloads>
```

Create and Deploy a Web application on Azure platform.

Step – 1: Install Node.js from <https://nodejs.org/en>



Step – 2: Install visual studio code from <https://code.visualstudio.com/download>



Step – 3: Install Azure from <https://learn.microsoft.com/en-us/cli/azure/install-azure-cli-windows?tabs=azure-cli#install-or-update>



Code:

```
mkdir mywebapp
cd mywebapp
npm init -y
npm install express
const express = require('express');
const app = express();

app.get('/', (req, res) => {
  res.send('Hello, Azure! This is my web application deployed on Azure App Service.');
```



```
});

const port = process.env.PORT || 3000;
app.listen(port, () => {
  console.log(`Server running on port ${port}`);
```

```
});
```

```
Command Prompt
Microsoft Windows [Version 10.0.22621.3296]
(c) Microsoft Corporation. All rights reserved.

C:\Users\viola>mkdir mywebapp

C:\Users\viola>cd mywebapp

C:\Users\viola\mywebapp>npm init -y
Wrote to C:\Users\viola\mywebapp\package.json:

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

C:\Users\viola\mywebapp>npm install express

added 64 packages, and audited 65 packages in 13s

12 packages are looking for funding
  run 'npm fund' for details

found 0 vulnerabilities
npm notice
npm notice New minor version of npm available! 10.2.4 -> 10.5.0
```

```
Command Prompt

run 'npm fund' for details

found 0 vulnerabilities
npm notice
npm notice New minor version of npm available! 10.2.4 -> 10.5.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.5.0
npm notice Run npm install -g npm@10.5.0 to update!
npm notice

C:\Users\viola\mywebapp>echo. > app.js

C:\Users\viola\mywebapp>echo const express = require('express'); >> app.js

C:\Users\viola\mywebapp>echo const app = express(); >> app.js

C:\Users\viola\mywebapp>echo. >> app.js

C:\Users\viola\mywebapp>echo app.get('/', (req, res) => { >> app.js

C:\Users\viola\mywebapp>echo   res.send('Hello, Azure! This is my web application deployed on Azure App Service.'); >> app.js

C:\Users\viola\mywebapp>echo }); >> app.js

C:\Users\viola\mywebapp>echo. >> app.js

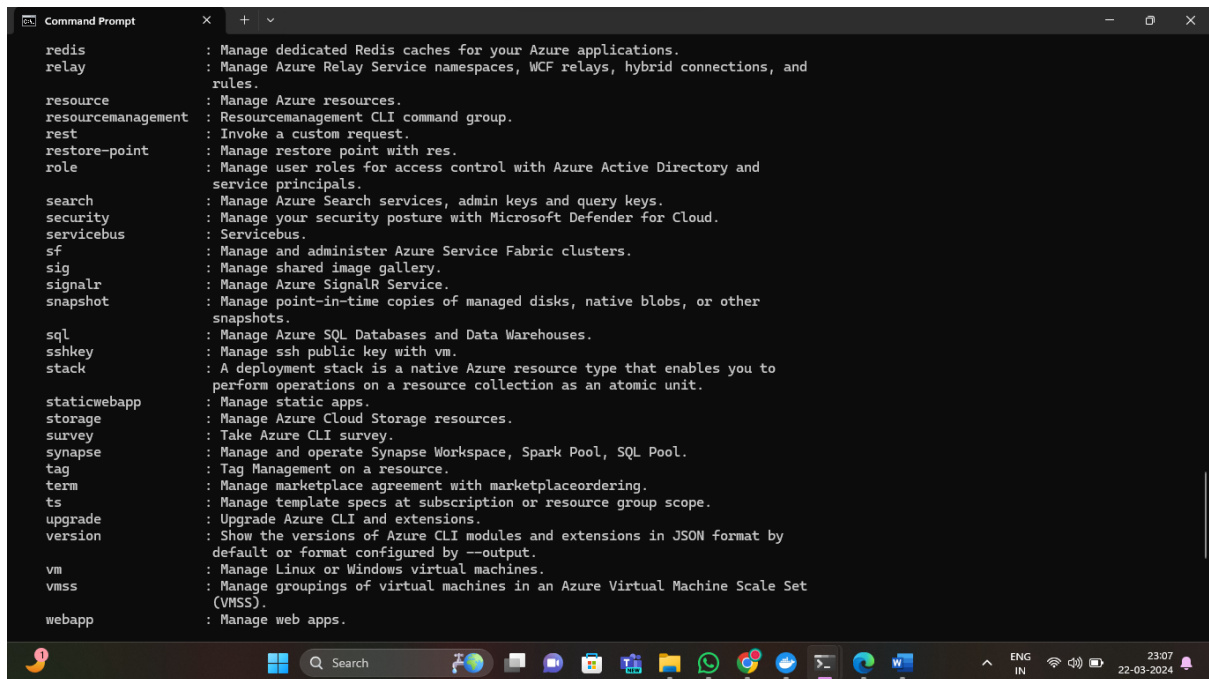
C:\Users\viola\mywebapp>echo const port = process.env.PORT || 3000; >> app.js
const port = process.env.PORT

C:\Users\viola\mywebapp>echo app.listen(port, () => { >> app.js

C:\Users\viola\mywebapp>echo   console.log('Server running on port ${port}'); >> app.js

C:\Users\viola\mywebapp>echo }); >> app.js

C:\Users\viola\mywebapp>az
```

##Azure is Paid subscription so can't proceed anymore.

