

## COMP 9783 Front-end Development

### Lab-1-1 - Node.js Lab. (4% of the course mark)

Name:

Student Number:

The first Node.js lab introduces learners to the fundamentals of server-side JavaScript development. Through hands-on exercises, participants gain an understanding of setting up a basic Node.js environment.

#### Lab objectives:

1. Understand the basics of server-side JavaScript development.
2. Set up a Node.js development environment on your local machine.

#### Node.js installation:

1. Navigate to: **<https://nodejs.org/en/download>**
2. **Download** and **install** the **Node.js** version based on your **Operating System**.
3. Test your **Node.js** installation by going to the **command line** and **typing: node --version**.  
would display the Node.js version installed.
4. Capture a screenshot of this and name it **NodeJsVersion.png**.

#### Create basic Node.js app:

1. On **VSCode**, **create a folder** named **First-Node-Js-App**.
2. Open the **terminal** and change the directory to **First-Node-Js-App**.
3. Initialize the app by performing the following tasks:
  - a. **Type npm init** and **press enter**.
  - b. **Press enter** to accept the default package name.
  - c. **Press enter** to accept the default version.

- d. Enter **First Node.js app** and **press enter** to set the description.
  - e. **Press enter** to accept the default entry point: (index.js).
  - f. **Press enter** to accept the default test command.
  - g. **Press enter** to accept the default git repository.
  - h. **Press enter** to accept the default keywords.
  - i. Enter your **first** and **last name** and **press enter** to set the author.
  - j. **Press enter** to accept the default license: (ISC).
  - k. Enter **yes** and **press enter** to accept the previously entered values.
4. Create a **file** named **index.js** and enter the following code:

```
console.log("Hello World!");
```

5. Save the changes.
6. On the **terminal** enter the command **node index.js** and **press enter**. This should display the text **Hello World**.
7. Capture a screenshot of this and name it **NodeJsHelloWorld.png**.
8. **Press ctrl-c** to terminate the app.
9. Make changes to the file **index.js** and write the following JS codes:
  - a. Create a constant JS object variable that will display the following:
    - i. First name
    - ii. Last name
    - iii. List of favorite artists and songs.
  - b. Display First and Last name from the constant variable created on the previous step.
  - c. Use any loop to display the list of favorite artists and songs.
10. Save the changes.
11. On the **terminal** enter the command **node index.js** and **press enter**.
12. Capture a screenshot of this and name it **CustomJSCode.png**.

13. Use the html template: **Lab-1-1.html** and **write HTML codes for each screenshot:**

- a. Write a title and short description.
- b. Display the screenshot.

**Submission:**

1. Use the html template: **index.html** and **write HTML codes for each screenshot:**

- a. Write a title and short description.
- b. Display the screenshot.

2. Create a **zip file** of all the **HTML, CSS** and **PNG** files.

3. Submit the **zip file** to **GBC - D2L**.