

# **Assignment 1:**

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**Subject:** Node & ReactJS Development

**Semester:** 5<sup>TH</sup>

**Repo link:** <https://github.com/Dipanshudk46/node-js-assignment-1>

**Question 1: Steps for Downloading and Installing Node.js on Windows**

**Aim:**

To download and install Node.js on a Windows system.

**Steps:**

1. Open your web browser and go to <https://nodejs.org>.
2. You will see two versions:
  - **LTS (Long Term Support)** → Recommended for most users.
  - **Current** → Latest features but not always stable.  
Choose **LTS**.
3. Download the **Windows Installer (.msi)** file.
4. Run the installer:
  - Click **Next**.
  - Accept the license agreement.
  - Click **Next**.
  - Choose the installation folder (default: C:\Program Files\nodejs).
  - Keep all default options checked.
  - Click **Install**.
5. After installation, open **Command Prompt or VS Code Terminal**.
6. Type the following commands to check installation:

```
node -v  
npm -v
```

node -v shows the installed Node.js version.

npm -v shows the installed Node Package Manager version

**Conclusion:**

Node.js and npm are successfully installed on Windows and ready to use.

## Question 2: Create File with First Name and Student ID and Print Hello World

**Steps:**

1. Open VS Code.
2. Create a new file named:
3. Write the following code:

A screenshot of the Visual Studio Code interface. The top bar shows tabs for 'Welcome' and 'assignment 1.js'. The main area displays a code editor with a single line of JavaScript: 'console.log("Hello, World!");'. Below the editor is a terminal window with the following output:

```
PS D:\node js assignment> node "d:\node js assignment\assignment 1.js"
Hello, World!
PS D:\node js assignment>
```

The bottom status bar indicates the code is in 'JavaScript' mode, with 'Ln 1, Col 34' and other file details.

4. • Save the file.
5. • Run in terminal: node assignment 1.js

### Q3: Create a Basic HTTP Server and Perform File Read/Write

#### Steps:

1. Open VS Code.
2. Create a file named: server.js
3. Write the following code:

```
const http = require('http');
const fs = require('fs');

// Write data to a file
fs.writeFileSync('example.txt', 'This is a sample text file created by Node.js');

// Create HTTP server
const server = http.createServer((req, res) => {
  if (err) {
    res.writeHead(500, { 'Content-Type': 'text/plain' });
    res.end('Error reading file');
  } else {
    res.writeHead(200, { 'Content-Type': 'text/plain' });
    res.end(data);
  }
});

// Server listening on port 3000
server.listen(3000, () => {
  console.log("Server running at http://localhost:3000/");
});
```

4. Run in terminal: node server.js
5. Open your browser and go to: <http://localhost:3000/>

