

Day 16 – Introduction to Node.js & Basics

Challenge 1: Node.js Fundamentals

User Story:

As a new developer, I want to understand what Node.js is and how it differs from browser-based JavaScript so that I can use it effectively for backend development.

Problem Statement:

Create a hello-node.js file that logs:

- Node.js version
- Current file name and directory
- A welcome message printed every 3 seconds (using setInterval).

Expected Outcome:

- Demonstrate basic Node execution using node hello-node.js.
- Console should show continuous messages every 3 seconds.

Bonus:

Add a stop timer logic after 10 seconds using clearInterval().

Self-Evaluation Metrics:

Metric	Target
Successfully run Node script from terminal	
Used global objects (__filename, __dirname)	
Used timers (setInterval, clearInterval) correctly	

Challenge 2: Understanding npm

User Story:

As a developer, I want to use npm to manage dependencies for my Node application efficiently.

Problem Statement:

Initialize a project using npm init -y.

Install chalk and figlet packages to display a colorful stylized message in the terminal.

Expected Outcome:

- The app prints a stylized “Welcome to Node.js” banner in color.
- Uses external modules from npm.

Bonus:

Add a script in package.json to run the app using npm start.

Self-Evaluation Metrics:

Metric	Target
Created package.json correctly	
Installed npm dependencies	
Used npm script (npm start)	

Challenge 3: Creating a Simple Node Application

User Story:

As a user, I want a small CLI application that takes my name as input and greets me with the current date and time.

Problem Statement:

Create a simple CLI Node app (greet.js) that:

- Accepts user input from command line (process.argv).
- Displays “Hello, [Name]! Today is [Date-Time]”.

Expected Outcome:

node greet.js John → “Hello, John! Today is Fri Nov 7 2025, 10:45 AM”.

Bonus:

Format date/time using the moment package.

Self-Evaluation Metrics:

Metric	Target
Used process.argv correctly	
Output matches expected format	
Used external npm package	
