# Node.js

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## Introduction to Node.js

- Open-source, cross-platform runtime environment
- Built on Chrome's V8 JavaScript engine
- Executes JavaScript server-side

## Why Node.js?

- Great for scalable and real-time applications like chat, collaborative tools, and online gaming.
- Event-driven architecture
- NPM (Node Package Manager)

## Installation and Setup

- Download from the official website
- Verify installation node -v and npm -v

# Writing Your First Node.js Script

- Create a file hello.js
- Write console.log("Hello, World!");
- Run node hello.js

#### Basic Web Server

```
const express = require('express');
const app = express();  // Binds the express module into 'app'
app.get('/', (req, res) \Rightarrow res.send(`Landing Page`));
app.listen(3000, "localhost", () \Rightarrow
console.log(`Local server listening on port 3000`));
```

## NPM and Packages

- Initializing a project npm init
- Installing packages npm install <package\_name>

## NPM Packages and Modules

- Module: Reusable code in a single file
- Package: Collection of modules
- Modules are building blocks of packages

## NVM - Node Version Manager

- NVM allows you to install and manage multiple versions of Node.js and npm,
- easier to work on different projects that may require specific versions.
- use **nvm list** and **nvm use** <**version**> to list and change versions

## Thank you