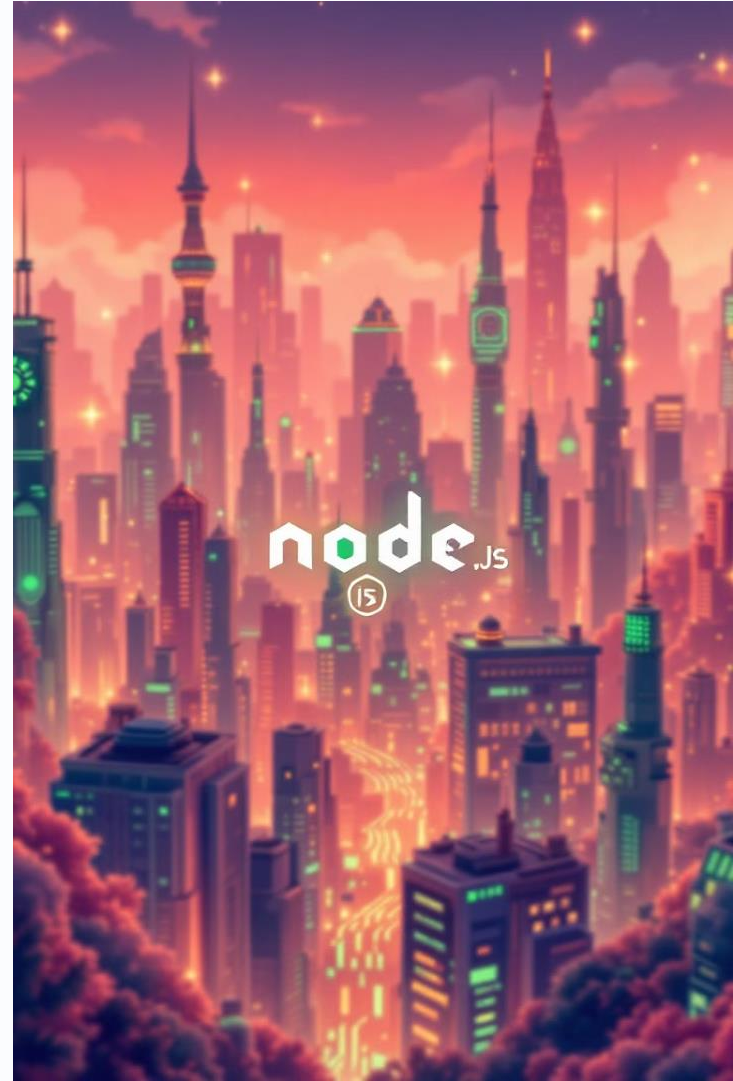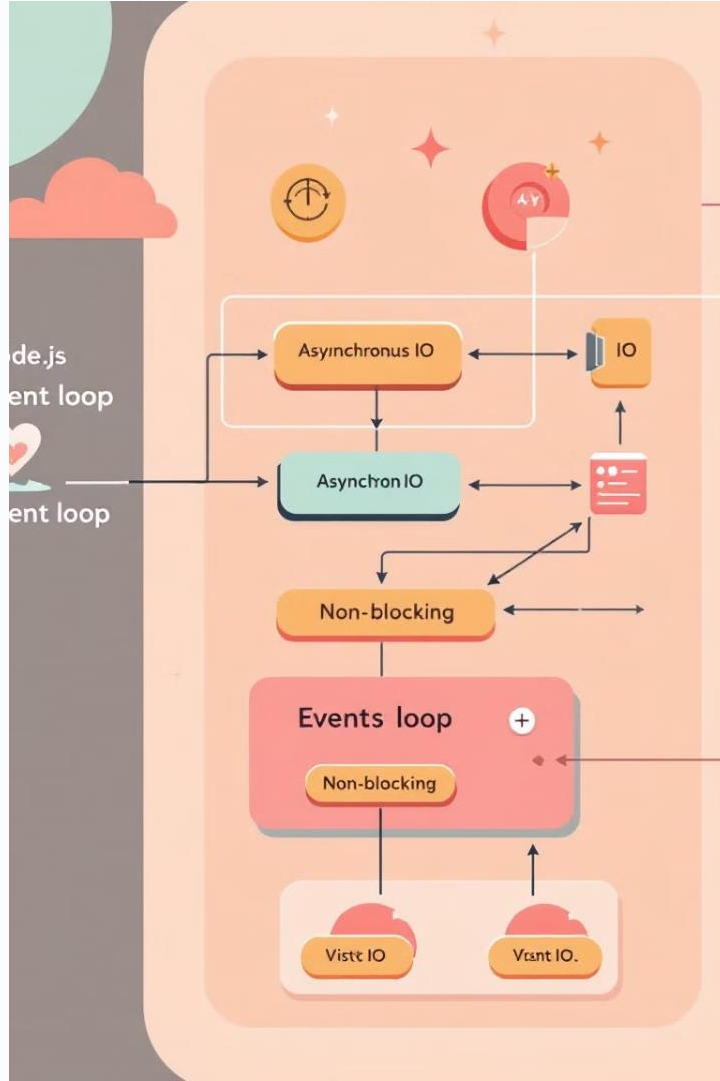# Introduction to Node.js

JavaScript runtime powering modern web development.

🟠경한 **작성자: 경한 김**

What is Node.js?

Open-Source Runtime

Cross-platform JavaScript environment for server-side applications.

V8 Engine

Built on Chrome's high-performance JavaScript engine.

Created in 2009

Developed by Ryan Dahl, revolutionizing server-side JavaScript.

Key Features

Event-Driven

Efficiently handles concurrent operations.

NPM

Vast ecosystem of reusable modules.

Scalable

Easily handles growing demands of applications.

Cross-Platform

Runs on various operating systems seamlessly.

Why Choose Node.js?

1	2	3	4

Fast Execution

V8 engine optimizes for high-speed performance.

JavaScript Everywhere

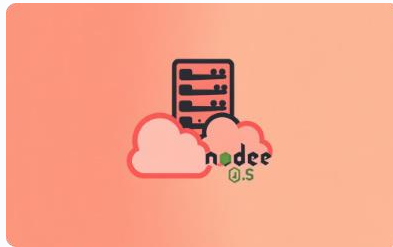Use same language for front-end and back-end.

Rich Ecosystem

NPM offers extensive libraries and tools.

Enterprise Ready

Scalable and reliable for large-scale applications.

Popular Use Cases

Web Servers

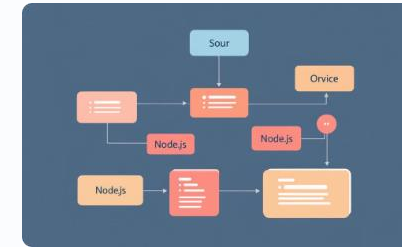Build robust and scalable we b applications.

Real-time Apps

Create responsive, real-time communication systems.

CLI Tools

Develop powerful command -line utilities efficiently.

Microservices

Build flexible, modular appli cation architectures.

Code Example

```javascript
const http = require('http');
const server = http.createServer((req, res) => {
  res.writeHead(200, {'Content-Type': 'text/plain'});
  res.end('Hello World!');
});
server.listen(3000, () => {
  console.log('Server running at http://localhost:3000/');
});
```

1 **Import HTTP Module**

Node.js core module for server creation.

2 **Create Server**

Define request handler and response.

3 **Listen on Port**

Start server on specified port.

Getting Started

1 **Download Node.js**

Visit nodejs.org and choose LTS version.

2 **Verify Installation**

Check node and npm versions in terminal.

3 **Create First App**

Initialize project, write code, run application.

4 **Explore NPM**

Install packages and manage dependencies.

Made with Gamma

Learning Resources

Official Documentation

Comprehensive guides at nodejs.org.

GitHub Repository

Explore source code and contribute.

Online Courses

- Udemy
- Coursera
- freeCodeCamp

Community Forums

Engage with experienced developers for support.

Workshops and Meetups

Attend local events to network and learn.