



KIDS & TEENS FREELANCING TRAINING INSTITUTE

Node.js Training Course Outline

Module 1: What is Node.js?

- Introduction to Node.js as a JavaScript runtime for the server
 - Real-life example: Powering chat apps, APIs, and real-time games
 - Benefits: fast, non-blocking, and scalable
 - Installing Node.js and running your first script
 - Activity: Build and run your first “Hello from Node!” app
-

Module 2: Understanding Modules and File System

- Working with built-in Node.js modules (fs, path, os)
 - Real-life example: Reading and writing user files
 - Creating your own custom modules
 - Activity: Create a note-taking app that saves to a file
-

Module 3: Working with NPM (Node Package Manager)

- Installing and using third-party packages
 - Managing dependencies with `package.json`
 - Real-life example: Adding color to console logs or managing dates
 - Activity: Build an app using a helpful npm package (like chalk or moment)
-

Module 4: Creating a Simple Web Server

- Using the `http` module to create servers
- Sending basic HTML, JSON, and status codes
- Real-life example: Simulate a mini website backend
- Activity: Build a basic server that returns different responses

Module 5: Express.js – Web Framework for Node

- Introduction to Express for creating APIs and web apps
- Setting up routes, middleware, and request handling
- Real-life example: Creating an API for a to-do list
- Activity: Create a simple REST API with Express

Module 6: Connecting Node.js to Databases

- Using MongoDB or PostgreSQL with Node.js
- Real-life example: Saving user profiles or messages
- CRUD operations: Create, Read, Update, Delete
- Activity: Build a backend for a blog or notes app

Module 7: Asynchronous Programming & APIs

- Understanding callbacks, promises, and async/await
- Fetching data from external APIs (e.g., weather API)
- Real-life example: Building a weather dashboard
- Activity: Create an app that fetches and displays API data

Module 8: Deploying Node.js Apps

- Preparing your Node.js app for production
- Hosting using platforms like Render, Vercel, or Heroku
- Real-life example: Share your app live with users
- Activity: Deploy your Node.js project and test it online

Bonus Materials

- Node.js cheat sheet and common CLI commands
- Mini projects: Weather App, Blog Backend, Chat Server
- Free hosting and deployment guides
- Certificate of Completion for Node.js Development

