

Installing and Exploring Node.js5 lectures

- Section Intro: Installing and Exploring Node.js
- Installing Node.js and Visual Studio Code
- What is Node.js?
- Why Should I Use Node.js?
- Your First Node.js Script

Node.js Module System (Notes App)6 lectures

- Section Intro: Node.js Module System
- Importing Node.js Core Modules
- Importing Your Own Files
- Importing npm Modules
- Printing in Color
- Global npm Modules and nodemon

File System and Command Line Args (Notes App)11 lectures

- Section Intro: File System and Command Line Args
- Getting Input from Users
- Argument Parsing with Yargs: Part I
- Argument Parsing with Yargs: Part II
- Storing Data with JSON
- Adding a Note
- Removing a Note
- ES6 Aside: Arrow Functions
- Refactoring to Use Arrow Functions
- Listing Notes
- Reading a Note

Debugging Node.js (Notes Apps)3 lectures

- Section Intro: Debugging Node.js
- Debugging Node.js
- Error Messages

Asynchronous Node.js (Weather App)14 lectures

- Section Intro: Asynchronous Node.js
- Asynchronous Basics
- Call Stack, Callback Queue, and Event Loop
- Making HTTP Requests
- Customizing HTTP Requests
- An HTTP Request Challenge
- Handling Errors
- The Callback Function

- Callback Abstraction
- Callback Abstraction Challenge
- Callback Chaining
- ES6 Aside: Object Property Shorthand and Destructuring
- Destructuring and Property Shorthand Challenge
- Bonus: HTTP Requests Without a Library

Web Servers (Weather App)11 lectures

- Section Intro: Web Servers
- Hello Express!
- Serving up HTML and JSON
- Serving up Static Assets
- Serving up CSS, JS, Images, and More
- Dynamic Pages with Templating
- Customizing the Views Directory
- Advanced Templating
- 404 Pages
- Styling the Application: Part I
- Styling the Application: Part II

Accessing API from Browser (Weather App)7 lectures

- Section Intro: Accessing API from Browser
- The Query String
- Building a JSON HTTP Endpoint
- ES6 Aside: Default Function Parameters
- Browser HTTP Requests with Fetch
- Creating a Search Form
- Wiring up the User Interface

Application Deployment (Weather App)10 lectures

- Section Intro: Application Deployment
- Joining Heroku and GitHub
- Version Control with Git
- Exploring Git
- Integrating Git
- Setting up SSH Keys
- Pushing Code to GitHub
- Deploying Node.js to Heroku
- New Feature Deployment Workflow
- Avoiding Global Modules

MongoDB and Promises (Task App)12 lectures

- Section Intro: Databases and Advanced Asynchronous Development
- MongoDB and NoSQL Databases
- Installing MongoDB on macOS and Linux

- Installing MongoDB on Windows
- Installing Database GUI Viewer
- Connecting and Inserting Documents
- Inserting Documents
- The ObjectID
- Querying Documents
- Promises
- Updating Documents
- Deleting Documents

REST APIs and Mongoose (Task App)20 lectures

- Section Intro: REST APIs and Mongoose
- Setting up Mongoose
- Creating a Mongoose Model
- Data Validation and Sanitization: Part I
- Data Validation and Sanitization: Part II
- Structuring a REST API
- Installing Postman
- Resource Creation Endpoints: Part I
- Resource Creation Endpoints: Part II
- Resource Reading Endpoints: Part I
- Resource Reading Endpoints: Part II
- Promise Chaining
- Promise Chaining Challenge
- Async/Await
- Async/Await: Part II
- Integrating Async/Await
- Resource Updating Endpoints: Part I
- Resource Updating Endpoints: Part II
- Resource Deleting Endpoints
- Separate Route Files

API Authentication and Security (Task App)15 lectures

- Section Intro: API Authentication and Security
- Securely Storing Passwords: Part I
- Securely Storing Passwords: Part II
- Logging in Users
- JSON Web Tokens
- Generating Authentication Tokens
- Express Middleware
- Accepting Authentication Tokens
- Advanced Postman
- Logging Out
- Hiding Private Data
- Authenticating User Endpoints
- The User/Task Relationship
- Authenticating Task Endpoints
- Cascade Delete Tasks

Sorting, Pagination, and Filtering (Task App)5 lectures

- Section Intro: Sorting, Pagination, and Filtering
- Working with Timestamps
- Filtering Data
- Paginating Data
- Sorting Data

File Uploads (Task App)8 lectures

- Section Intro: File Uploads
- Adding Support for File Uploads
- Validating File Uploads
- Validation Challenge
- Handling Express Errors
- Adding Images to User Profile
- Serving up Files
- Auto-Cropping and Image Formatting

Sending Emails (Task App)6 lectures

- Section Intro: Sending Emails
- Exploring SendGrid
- Sending Welcome and Cancelation Emails
- Environment Variables
- Creating a Production MongoDB Database
- Heroku Deployment

Testing Node.js (Task App)15 lectures

- Section Intro: Testing Node.js
- Jest Testing Framework
- Writing Tests and Assertions
- Writing Your Own Tests
- Testing Asynchronous Code
- Testing an Express Application: Part I
- Testing an Express Application: Part II
- Jest Setup and Teardown
- Testing with Authentication
- Advanced Assertions
- Mocking Libraries
- Wrapping up User Tests
- Setup Task Test Suite
- Testing with Task Data
- Bonus: Extra Test Ideas

Real-Time Web Applications with Socket.io (Chat App)24 lectures

- Section Intro: Real-Time Web Applications with Socket.io

- Creating the Chat App Project
- WebSockets
- Getting Started with Socket.io
- Socket.io Events
- Socket.io Events Challenge
- Broadcasting Events
- Sharing Your Location
- Event Acknowledgements
- Form and Button States
- Rendering Messages
- Rendering Location Messages
- Working with Time
- Timestamps for Location Messages
- Styling the Chat App
- Join Page
- Socket.io Rooms
- Storing Users: Part I
- Storing Users: Part II
- Tracking Users Joining and Leaving
- Sending Messages to Rooms
- Rendering User List
- Automatic Scrolling
- Deploying the Chat Application