

Node.js Training

Day 1 - 25th Sept. 2018

What is Node.JS

Open source, cross platform runtime environment for developing server-side applications.

Built on Google Chrome V8 Javascript Engine, Good Garbage collection

Event-Driven, Non Blocking I/O Model

Simply JavaScript on Server-Side

Application built on Node should be Data/Network intensive, CPU intensive apps are not for Node like video-encoding/image-manipulation services

Technologies To Be Used

1. Node.js REPL(Read evaluate print line)
Writing functions and saving REPL session using .save
2. Node.js & NPM
3. Express Framework
4. Passport User Authentication
5. Multer File Upload
6. Databases: MongoDB(Mongoose ORM), MySQL
7. Socket.io

Installation Required

1. Node.JS & NPM
2. Editor VS-Code
3. MongoDB

Node.js Programming Fundamentals

- Javascript - 1995
- ECMA Script (ES6)
European Computer Manufacturers Association Script
- Variable declaration => const, let(block scope) vs var(function Scope)
- Fat Arrow Functions(ES6)
- Super Dots
- Classes
- Events
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- Node Module system
- Path module, path.parse
- OS module, os.totalMemory, os.freeMemory
- Asynchronous Programming
- Callbacks
- Promise
- Events
- HTTP
- jshint

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Day 2 - 6th Sept. 2018

Project-1: Simple Contact Submission Website

- Install node.js and npm
- Use Visual Studio Code, editor
- Create new project expressWebsite, Do > npm init
- Install Express module. > npm install express
- Understand package.json and package-lock.json
- Install body-parser(req data parser), nodemailer(transporter), jade(template Engine)
- Add jade templates and showcase use of res.render('index', {title: 'Some text'})
- Add Contact Form and demonstrate Send Email Functionality
- MongoDB, intro with Contact form saving Functionality
- Use of express.Router

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Day 3 - 7th Sept. 2018

Project-2: Registration Site

- MongoDB
- Express Generator.
- Use Model using Mongoose
- Register User
- Encrypt Password

