PL-Node JS Training

Introduction

Since it's a splendid server-side stage for growing ongoing applications, developers can utilize NodeJS servers to scale greatly. You can viably deal with a large number of continuous solicitations without equipment and extra facilitating administrations that cost galactic sums. Hub-based applications are additionally completely perfect with cloud benefits and can be included or erased consequently, along these lines forestalling application spikes in case of a traffic flood.

Node.js is focused on creating high-performing, highly-scalable websites,It’s very easy to get started. This training will give you basic experience with Node JS.

Day 1

Links to cover:

1 : https://platformjs.wordpress.com/2010/11/24/node-js-under-the-hood/

2: https://nodejs.org/en/docs/

Learn Basic Understanding of Javascript.

How does JavaScript and JavaScript engine work?

Why use Node and what it is and how it works.

How to install and start using Node

Global vs Local Installation

Package.json

History and Releases

Day 2

Links to cover:

1 : https://medium.com/edureka/learn-node-js-b3a9c6fb632c

Getting Started

Basics/Features of Node JS

History and Releases

Node JS Architecture

NPM (Node Package Manager)

Day 3

Links to cover:

1 : https://www.tutorialsteacher.com/nodejs/nodejs-tutorials

2: https://medium.com/edureka/learn-node-js-b3a9c6fb632c

Node Js Modules

Node JS Web Server

Node JS File System

Open file

Read file

Write file

File information

Delete file

Create & Delete directory

Debugging Node JS

Frameworks for Node JS

Day 4

Links to cover:

1 : https://www.youtube.com/watch?v=8aGhZQkoFbQ

2: https://blog.risingstack.com/node-hero-async-programming-in-node-js/

3: https://www.codementor.io/@simenli/demystifying-asynchronous-programming-part-1-node-js-event-loop-7r503aka

4: https://nodejs.org/en/docs/guides/blocking-vs-non-blocking/

Understanding some important concepts in Node JS

What the heck is the event loop anyway?

Understanding Async Programming in Node.js

Demystifying Asynchronous Programming

Overview of Blocking vs Non-Blocking

Day 5

Links to cover:

1 :https://www.w3schools.com/nodejs/

2: https://www.tutorialspoint.com/nodejs/

3: https://www.youtube.com/playlist?list=PL6gx4Cwl9DGBMdkKFn3HasZnnAqVjzHn\_

Once you get the best idea of asynchronous programming, let’s checkout few series of Node.JS tutorials

Node JS tutorial series

W3School

TutorialsPoint

Youtube (by thenewboston)

Day 6

Links to cover:

1 : https://www.youtube.com/playlist?list=PL4cUxeGkcC9jBcybHMTIia56aV21o2cZ8

2 : https://scotch.io/tutorials/creating-a-single-page-todo-app-with-node-and-angular

Roadmap for Express.js

Introduction / Setup / Routing / Methods

REST API Tutorials using Node, Express & Mongo (Youtube)

Creating a Single Page Todo App with Node

Day 7

Links to cover:

1 : https://www.guru99.com/node-js-mongodb.html

2: https://codeburst.io/writing-a-crud-app-with-node-js-and-mongodb-e0827cbbdafb

3: https://sequelize.org/master/manual/getting-started.html

4: https://hackernoon.com/using-redis-with-node-js-8d87a48c5dd7

5: https://www.compose.com/articles/api-caching-with-redis-and-nodejs/

Now we need to store our data in our node application. Although MongoDB is the first one which comes into our mind when learning NodeJS, there are no hard rules for that. You can use any database you think suitable for your project.

Database and caching

Node.js MongoDB Tutorial with Examples

Writing a CRUD app with Node.js and MongoDB

Getting started with Node.js and PostgreSQL using SequelizeJS

Using Redis with Node JS

API Caching with Redis and Node.js

Day 8

Links to cover:

1 : https://medium.com/@noufel.gouirhate/build-a-simple-chat-app-with-node-js-and-socket-io-ea716c093088

2: https://dzone.com/articles/creating-a-chat-application-in-node-js-with-expres

Why not we implement all the cool stuff we learned so far and build a realtime chat application

Coding Real time Applications.

Build a simple chat app with node.js and socket.io

Creating a Chat App in Node.js With Express, MongoDB, Mongoose, and Socket.io

Day 9

Links to cover:

1 : https://medium.com/codingthesmartway-com-blog/creating-a-graphql-server-with-node-js-and-express-f6dddc5320e1

2:https://www.freecodecamp.org/news/how-to-build-blazing-fast-rest-apis-with-node-js-mongodb-fastify-and-swagger-114e062db0c9/

3: https://scotch.io/@codediger/build-a-simple-graphql-api-server-with-express-and-nodejs

GraphQL is a query language for APIs that enables you to consume data from any client without defining any regular API.

Power up your APIs with GraphQL

Creating A GraphQL Server With Node.js And Express

How to set-up a powerful API with Nodejs, GraphQL, MongoDB, Hapi, and Swagger

Build a Simple GraphQL API Server With Express and NodeJS

Day 10

Links to cover:

1 :https://www.freecodecamp.org/news/securing-node-js-restful-apis-with-json-web-tokens-9f811a92bb52/

2: https://scotch.io/tutorials/building-and-securing-a-modern-backend-api

3: https://expressjs.com/en/advanced/best-practice-security.html

4: https://thejackalofjavascript.com/architecting-a-restful-node-js-app/

Writing insecure code is like building a boat which is not going to float rather sink. The last but not least topic we need to learn is writing a secure code.

Securing your Node JS API

Securing Node.js RESTful APIs with JSON Web Tokens

Building and Securing a Modern Backend API

Best Security Practices for production Express.JS

Architecting a Secure RESTful Node.js app

Day 11

Links to cover:

1 :https://devcenter.heroku.com/articles/deploying-nodejs

2: https://www.freecodecamp.org/news/how-to-deploy-a-node-js-application-to-amazon-web-services-using-docker-81c2a2d7225b/

3: https://scotch.io/tutorials/deploying-a-node-app-to-digital-ocean

Deploying Node Js Applications

Deploying Node.js Apps on Heroku

How to deploy a Node.js application to Amazon Web Services using Docker

Deploying a Node App to DigitalOcean

Things you must need to know at the end of this training

Good Understanding of javascript and technical concepts behind NodeJS

A basic idea of how NodeJS works under the hood

Understand the event loop

Difference between synchronous and asynchronous

Understand Buffers, Streams, and Pipes

Node modules and structure of a node application

Use NPM and manage node packages

Build a Web Server in Node and understand how it really works

Implementing real time features in Node.JS

Writing test cases & automate them

Build and deploy automation

Post Training Completion

Get yourself ready for a demo project