

# **Node Lectureflow**

## Module 12) Node - Javascript Fundamental

2

- JavaScript Introduction, Difference between JavaScript and Java, Client Server Model, Objects in JavaScript
- Arrow Function, Bind, Apply, Closure, Classes in JavaScript, JavaScript JSON
- Practicals

#### Module 13) Node - NodeJS - Introduction

5

- Node JS introduction, Chrome V8 engine, Core Modules, Local Modules, NPM Modules, module.exports, nodemon
- Command line arguments, Process object, Args parsing with Yargs, Storing data with JSON, Filter VS Find, Reading and Writing notes
- File Module example, Local Module example, Validator npm library example
- Create TODO app in node js using command line arguments

## Module 14) Node - Web Development with Node

8

- Asynchronous Node JS, Making HTTP request
- JSON Parsing, Geo-coding, Error Handling
- Callback function, Callback chaining, De-structure Object
- Create an app to fetch temperature of given city using geocoding and temperature API,
- Web Server with Express, Install express, Create server
- Serve data like HTML, JSON Object, JSON Array, Static Assets, Path Module
- Template Engine, Dynamic Page, Passing data to .hbs file, Handlebars Particles, Error 404 Pages
- Practical of Returning html response, Returning json object, Returning json array, Display image from static assets
- Use of CSS and JavaScript file from Assets folder, Create header, footer particles and use in different hbs files like index.hbs, about.hbs, help.hbs
- Accessing API from browser, Query String, Call Weather and Geo Code API from browser
- ES6: Default Function Parameter, Default Value with De-structuring, Browser HTTP request with fetch()
- Search Form with prevent form submission and fetch weather information for city input by user

#### **Module 15) Node - Node with Mongodb**

6

- Mongodb vs MySQL, Installing MongoDB, Robo 3t GUI viewer, Connecting to Mongodb, Object ID, ES6: Promises
- Inserting Document, Insert Bulk Documents, Read one Document, Read all Documents
- Count all Documents, Update One Document, Update Many Documents, Deleting Documents

•



- Create User Model with name (string) and age (int) field and save it. Create Task model with description (String) and completed (Boolean) fields and save it.
- User Age is more 18 Remove Space around name, Custom validator: age>0 Custom validator: email validation
- Add Password field to User with proper validation, Apply validation to Task model

#### **Module 16) Structuring REST API**

4

- Request, Response, Resource Creation End Points, HTTP status, Resource Reading End Points, Promise chaining
- ES6 Async/Await, Resource Updating End Points, Deleting End points, Separating Route files for user and task
- Create User & Create User &
- Create User & Dirt with success and error handling, Create User & Dirt with success and error handling, Create User & Dirt with success and error handling

## Module 17) - Node - [API Authentication & Security]

3

- Securely storing password, Comparing password when login, Mongoose Middleware, Unique email id in User model
- JSON Web Tokens, Verify Token and Set Expiry, Express Middleware, Logging out
- Login, Logout with token, Hiding private data, Encrypt password Read Task for login user only
- Api authentication with token
- Image uploading in api
- Payment with node
- socket programming, like chat app
- SMs and email sending, for OTP verification