

# **Node JS Course Syllabus**

## **Chapter 1: INTRODUCTION TO NODE WORLD**

- Introduction to Javascript event driven programming
- Introduction to Node event-driven programming

## **Chapter 2: MAKING A WEB SERVER**

- Webserver basis
- Handling incoming request in Node JS
- Serving static files / pages
- Content caching
- Streaming and optimization
- Handling filesystem

## **Chapter 3: Rest API & HTTP OBJECT**

- Rest API benefits
- Introduction to HTTP Object
- Processing POST Data
- Handling File uploads
- Using Node as HTTP Client
- Implementing download Throttling

- Node JS way of calling another server

## **Chapter 4: WORKING WITH DATA SERIALIZATION**

- JSON to Object & Object to JSON
- XML to Object and Object to XML

## **Chapter 5: WORKING WITH DATABASES (Preferred MONGODB over MYSQL)**

- Writing to a CSV File in Database
- CRUD using MONGODB

## **Chapter 6: WEB DEVELOPMENT WITH EXPRESS**

- Express scaffolding
- Defining and applying environments
- Dynamic routing
- Templating IN Express
- CSS engines with Express
- How to use JWT benefit of using JWT over Sessions
- Demo of making an Express web application
- File System Security issues and measures

## **Chapter 7: ALL ABOUT SECURITY**

- Basic Authentication methods
- Password cryptography

- Setting up HTTPS
- How to safeguard your site from cross-site forgeries

## **Chapter 8: ADVANCED NODE CONCEPTS**

- Sending Emails
- Sending SMSs
- What is a web socket? Communication using sockets!
- Creating your own SMTP server
- Creating Command line app using Node
- Threads (or) worker in Node JS
- Making cron jobs in Node JS
- Node as proxy server

## **Chapter 9: WRITING CUSTOMIZED NODE MODULES**

- Writing a functional module
- Extending the module's API
- Deploying a module to npm

## **Chapter 10: GETTING IT TO PRODUCTION**

- How to set up production server environment
- How to set up auto crash recovery

