Node JS

Duration: 4 Days

Day 1:

ECMA Script 2015 features

- Closures
- Callbacks
- High order functions
- Arrow functions/Lambdas
- Filter,find,Reduce,Sort etc.
- Chain promise
- Immutability
- Lazy instantiation
- Classes & Modules

Node Introduction

- Environment Set up
- NPM
- Blocking Vs. Non- blocking
- REPL
- Callback Concepts
- Events
- Event Emitter
- Event Loop
- Timers

Day 2:

Buffer

- Methods
- Character Encoding
- Typed Array
- Buffer class

Streams

- Types of Streams
- Object Mode / Buffering
- Writable Streams
- Readable Streams
- Duplex & Transform Streams
- Back pressuring in streams

Web Module

HTTP

Day 3:

Multiprocessing in Node JS

- Child processes
  - o Synchronous
  - o Asynchronous
- Cluster
  - o How it works
  - o Worker
  - o Evens
  - o Methods

V8 Engine Internals

- Overview
- Internal Parts
- How to write optimized code

V8 Module

Day 4:

C++ AddOns

- V8 Library
- Libuv
- Node:: ObjectWrap class

- OpenSSL

- Example

- Building

- Linking to Node.js' own dependencies

- Loading Addons using require()

NAN/N-API

- Introduction

Security

- Tips / Best Practices

- Node JS Security Platform CLI

- Crypto Module – Node JS