# NodeJS Training

**Duration: 2 days**

**COURSE CONTENT**

- Introduction
- Foundation
    - The Node.js framework
    - Installing Node.js
    - Using Node.js to execute scripts
- Node Projects
    - The Node Package Manager
    - Creating a project
    - The package.json configuration file
    - Global vs. local package installation
- Working with password vault manager

    (This console based application we will build to secure our social app credential)

- Working with shrink-wrap to lock the node modules versions
    - What is shrink-wrap
    - Working with npmvet
    - Working with outdated command
- Working with asynchronous programming
    - Asynchronous basics
    - Callback functions
    - Working with Promises
    - Advance promises
    - Using Request module to make api calls
- Working with real time weather app

    (mini application using asynchronous programming to get real time data from weather station)

- Building a HTTP Server with Node.JS using HTTP APIs
    - The HTTP protocol

- o Building an HTTP server
- o Rendering a response
- o Processing query strings
- o Processing posted data

- File System
  - o Synchronous vs. asynchronous I/O
  - o Path and directory operations
  - o __dirname and __filename
  - o Asynchronous file reads and writes

- Buffers, Streams, and Events
  - o Using buffers for binary data
  - o Flowing vs. non-flowing streams
  - o Streaming I/O from files and other sources
  - o Processing streams asynchronously

- Multi-Processing in NodeJS
  - o Working with Child Process API
  - o Working with Cluster API for multi-core servers

- Express
  - o Configuring Express
  - o Postman configration
  - o Using REST

- Testing
  - o Working with Chai
  - o Working with Mocha
  - o Working with simon

- Working with security
  - o JWT
  - o Auth-0 Introduction