Course Syllabus

Installation

- Installation of front end web development & node.js required softwares

Advanced JavaScript - Part 1

- Introduction to object oriented
- Terminology
- Functions
- Anonymous function
- Immediate function

Advanced JavaScript - Part 2

- Inner functions
- Closures

Advanced JavaScript - Part 3

- JavaScript object literal
- Creating object using constructor
- Private ; Privileged ;Public and static members
- JavaScript object property
- Accessing JavaScript property

Advanced JavaScript - Part 4

- Enumeration properties
- Prototype
- functions and prototype
- _ _proto_ _ property (object)
- Prototypal inheritance
- Multiple inheritance
- Parasitic inheritance
- Copy prototype of inheritance
- Deep copy

Project I

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own ideas for their projects

Project I cont...

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own ideas for their projects

Introduction to node.js, npm - Part 1

- Introduction to node.js
- JavaScript V8 engine
- node.js architechture
- Creating first node.js app
- NPM(Node Packaging Manager)
- Installing NPM module
- Important NPM command

Introduction to node.js, npm - Part 2

- Creating and locating modules
- Specifying dependencies with package.json

CPS, Event Loop

- Understanding cps (continuation passing style)
- Understanding the event loop
- Example of event loop

HTTP, mongodb - Part 1

- Creating a simple HTTP server
- Understanding and installing ExpressJS
- Express core component
- Installing ExpressJS
- Express middleware
- Express application - kinds of middleware
- Application & route level middleware
- Application & route level middleware

HTTP, mongodb - Part 2

- Understanding routing in ExpressJS
- The ExpressJS routing machanism
- Adding GET & POST route
- Using parameterized routes
- Rending view using ExpressJS

Session Handling

- Introduction to session handling
- Install dependencies
- How to install dependencies?
- Express session implementation

HTTP, mongodb - Part 3

- Understanding JSON
- Uses & characteristics of JSON
- JSON data types
- JSON exmaple
- MongoDB & mongoose
- Installing MongoDB
- Connecting to MongoDB
- Schema & model
- Creating the model

HTTP, mongodb - Part 4

- Creating a sample JSON API
- Directory structure
- Obtaining necessary dependencies
- Creating API for movie app
- Configuring the app
- BootStraping
- Testing the API

Socket.IO Simple

- Understanding Socket.IO
- Uses for socket.IO
- Create basic Socket.IO app

Socket.IO Chat

- Introduction
- Design a chat screen
- Integrate Socket.IO
- Emitting events

- Broadcasting

Streams

- Understanding streams
- Readable and writable streams
- Piping streams

Events

- Introduction to events
- Event emitter
- node.js high speed reason

Desktop App - Node WebKit

- What is node webkit?
- Setting up node webkit
- Create package.json
- Create index.HTML
- Run the app
- Control window size
- Adding native feature - menu bar
- A menu bar-in windows & mac

Unit testing

- Unit testing which framework?
- Why mocha?
- Setting up
- Code to be tested
- Test-synchronous-asynchronous
- Hooks
- Should DSL
- Running tests
- Mocha configurability

Project II

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own ideas for their projects

Project II cont...

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own

ideas for their projects

Project II cont...

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own ideas for their projects

Project II cont...

- Mentee can select project from predefined set of AcadGild projects or they can come up with their own ideas for their projects