MEAN & MERN Stack Web Development

Module 1

- Introduction to Angular

- Introduction to TypeScript and ES6

- Components in Angular

Module 2

- Data and Event Binding

- Structural Directives

- Attribute Directives and Property Bindings

- Template/ Model Driven Forms

Module 3

- Pipes and Data Formatting

- Service and Dependency Injection

Module 4

- Introduction to Single Page Application

- Angular Component Router

- Modules

- Deploying an Angular App

Module 5

- More Topics

- Performance Tuning and best practices

Module 6

- Introduction to Node JS

- Creating first Node JS app

- Understanding NPM

- Creating and locating Modules

- Specifying dependencies with package. Json

- Understanding CPS (Continuation Passing Style)

- Understanding the Event Loop

- NPM AND CPS

- Understanding NPM

- Creating and locating Modules

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- Understanding the Event Loop

- Build app with Node and express with MVC architecture

- MONGODB

Module 7

- Express JS with Middleware

- Working with third party API's

- Events and Streams

- Socket IO

- Node JS Best Practices

NoSQL-DB

- Introduction to NOSQL DB

- Overview of DB

- Adv of NOSQL DB

- Type of NOSQL DB

Mongo-DB

- Introduction to MongoDB

- Installation and Configuration of MongoDB

- Start and Stop MongoDB

- Connection with Javascript and Node.js

- Static and Dynamic Schemas

- Data Modeling

- Create database

- Drop database

Mongo-DB Collection

- Introduction to Collection

- Collection Vs Tables

- Create Collection

- Drop Collection

- Operation on MongoDB

Mongo-DB Document

- Introduction to document

- Create document

- Insert Document

- Update Document

- Delete Document

Mongo-DB Operation

- MongoDB - Limit Records

- MongoDB - Sort Records

- MongoDB - Indexing

- MongoDB - Create Backup

JSON

- Introduction to JSON

- Uses of JSON

- JSON Datatype

- JSON Object

- JSON Schemas

Mongo-DB with JavaScript

- Creating and Dropping collection by javascript application

- Creating and Deleting document by javascript application

- Insert,Update,delete Operation with javascript

REST API

- Introduction to REST API

- REST Architecture

- HTTP methods

- HTTP response

- Creating REST

- Testing REST

- POSTMAN

- Creating Application based on REST API with Javascript and MongoDB

NODE.JS & EXPRESS.JS

- Node.js

- Introduction Node.js

- Why Node.js ?

- Feature of Node.js

- Node.js Installation & configuration

- Where to use Node ?

- Server-side JavaScript

- Asynchronous events vs. threads

- Performance

- Server utilisation

REPL Terminal

- REPL Introduction

- REPL Commands

- Operation In REPL

- Stopping REPL

NPM

- Introduction to NPM

- Installing module with npm

- Global Vs Local installation

- Package.json

- Updating a module

- Deleting a Module

Event Loop

- What is Event Loop?

- Event Driven Programming

- Event Emitter

- Call back function

Utility Module

- OS module

- Path module

- Net Module

- DNS Module

- Domain Module

Express.js Introduction

- What is framework ?

- Express.js Overview

- Installing Express.js

- Request & Response

- Request Object

- Response Object

- HTTP method with Node

- Serving statics file

- Cookies management

- REST with Node.js

Express.js

- Routing

- Configuration

- Views

- Middleware

Building an Express app

- Creating an Express app/project

- Organising/structuring the app

- Generating HTML views with Jade

- Navigating datasets

- Filtering data

- Request variables and routes

- Posting data

- Modifying data through PUT requests

- Handling GET requests returning JSON

- Modifying HTTP response headers

Node with REST API

- Introduction to REST API

- REST Architecture

- HTTP methods

- HTTP response

- Creating REST

- Testing REST

- POSTMAN

ANGULARJS

Angular JS

- Introduction to MVC

- What is AngularJS

- What is SPA

- Angular Directives

- Angular Expression

- Angular Controller

- Angular Model

- Angular Services

- Angular Module

- Angular Filter

- Angular Data Binding

- Angular Filters

- Angular DOM

- Angular Validations

- Angular Forms

- Dependencies Injection

Conclussion

- Hosting Node projects

- Node.js sites and resources

- Hosting MEAN-STACK application

React-Js

Introduction to React & JSX

- Origins of React

- React.js Syntax

- Overview of JSX and why you should use it

- Getting hold of everything you need to start coding

React Components

- React component Properties

- Setting Properties

- Component Lifecycle

- Updating Components

- Writing your first React.js component

- Mounting Components

JSX

- Expressions & Attributes

- JSX Basics

- Namespaced Components

- Rendering HTML

- Rendering React Components

Flux

- Views & Controller-Views

- Flux is not MVC!

- Data Flow

- Action, Dispatcher, Store & View

- Flux Application Architecture & Structure

Event Handling In React

- Key Events

- Event Pooling

- React.js Event Handlers

- Synthetic Event

Creating a Dynamic UI In React

- Keeping components stateless

- Event Delegation

- React Stateful Components

- Auto binding

Integration With Other Libraries

- Gulp & Browserify

- React with jQuery

- React & AJAX

React Server Integration & Deployment

- httpster

- npm