

# MEANSTACK

## COURSE SYLLABUS

### The Front End Frameworks- Big Picture

#### Intro to NodeJS Ecosystem – Essential for Angular 2

Intro to NodeJS and Ecosystem

Understanding NPM Packages

Understanding package.json

Essential NPM commands

### AngularJS 1 vs Angular 2 Vs Angular 4

#### Angular 2 Setup

Angular Cli

Creating a project

Project architecture Walkthrough

Typical Angular 2 App Architecture

Start the server, Understanding it

#### Quick Intro to TypeScript

What is TS?

Using Types

Classes

Modules, Import, Export

## Getting started with Components

What is a Component?

Breaking down into Component

Project Structure

Understanding app code

How does Angular 2 App Start?

Understanding AppModule (app.module.ts)

## Deep Dive into Components

Inner or Multiple Components

Generate inline templates

ng-content

## Data Binding

Intro

String Interpolation

Property Binding

Custom Property Binding

Event Binding

Two-way data Binding

Custom Event Binding

## Directives

Attribute Directives

Structural Directives

Custom Attribute Directive (Hands-on Coding Challenge : Colorizer )

Custom Attribute Directive with event (Hands-on Coding Challenge: EvtListener)

## Debugging

Chrome Inspector

Augury

## Services

What are Services?

Dependency Injection

## Angular 2 Life cycle hooks

## Angular 2 Router

Intro to Router

Setting up Router

Associating Links

Imperative Routing

Route Parameters

## Pipes

What are Pipes?

Pipes transform displayed values within a template

Pipes Docs

Creating Custom Pipes

## Forms

Template Driven Approach

Data Driven Approach

## HTTP

**Intro to Observables**

**Animations**

**Deployment**

**Unit Testing - Intro**

## Demo App with Angular 4 Front End on Last day

### Node JS

Node.js framework

Installing Node.js

Node.js to execute scripts

### Node Package

Node Package Manager

Package.json configuration file

Global vs. local package installation

### Shrink-wrap to lock the node modules versions

Learn NPM Vet

Outdated command

### Asynchronous programming

Callback functions

Promises

Using Request module to make api calls

### HTTP Server with Node.JS using HTTP APIs

Building an HTTP server

Rendering a response

Query strings

## File System

Synchronous vs asynchronous I/O

Dirname and Filename

## Buffers Streams and Events

Flowing vs non-flowing streams

Streaming I/O from files and other sources

## Multi Processing in NodeJS

Child Process API

Cluster API for multi-core servers

## ExpressJS

Defining Jade templates

Postman configuration

JSON Data

POST data

Adding middleware

## Express JS with MongoDB and Sqlite

RDBMS databases and NoSQL databases

Performing CRUD operations

## Socket.io, Front-end and Chat App

Adding Socket.io To Your App

Explore Front-end

Sending Live Data Back & Forth

Front-end UI

Timestamps

Chat application Project

## Intro to Task Managers with unit testing