Programmer's DEN

"Practical Knowledge > Theoretical Knowledge"

MEAN(MongoDB, Express, Angular, Node JS) Batch Contents :-

Module 1 :

- History of TypeScript/JavaScirpt Programming Language
- Features of TS/JS Programming Language
- Toolchain of TS/JS Programming Languate
- Installation of Node JS for TypeScript and JavaScript , VS CODE(Editor to Type Codes)

Module 2 : Programming in TypeScript/JavaScript

- DataTypes in TS/JS
- Variable Declaration in TS/JS
- Flow Control Statements (loops) in TS/JS
- Selection Statements(if else if ladder,Switch case) in TS/JS
- Functions in TS/JS
- Various Types of Parameters in TS/JS
- Constants in TS/JS
- Packages in TS/JS
- Import/Export in TS/JS
- I/O Operations in TS/JS
- Arrays in TS/JS
- Object Orientation Programming/Concepts in TS/JS
- String Class in TS/JS

- Inferred Typing in TS/JS

Module 3 : Frontend Web Devlopment using Angular Framework

- History of Angular Web Framework
- Installation of Angular Web Framework with the help of Node JS
- Angular Project Structure
- Creation and Execution Flow of Angular Project
- Components in Angular
- Modules in Angular
- Services in Angular
- Pipes in Angular
- Directives in Angular
- Various Types of Data Binding in Angular
- Intercomponent Communication in Angular
- Inline Template(HTML) and Inline Styles(CSS) in Angular
- HTTP & Observables, RxJS(Reactive Extensions for JavaScript) in Angular
- Routings in Angular
- Route Parameters in Angular
- Authentication Using Angular auth Guards
- Angular Forms(Reactive Form, Template-Drive Form)
- Lazy Loading Concept in Angular
- Use of Bootstrap in Angular Application For Styling Purpose of Frontend
- Use of Material Design in Angular Application For Styling Purpose of Frontend.
- Angular Life Cycle Hooks
- Testing of Angular Applications

Module 4 : Backend Web Devlopment using Node JS, Express and MongoDB(For Database).

- History of Node JS(JavaScript Runtime Environment)
- Installation of Node JS, Express and MongoDB
- Installation of MongoDB Compass(GUI To perform operation on Data present in MongoDB Database)
- Use of Node JS For Backend web development
- Use of Express(JavaScript Library) to create Servers to connect Angular with Node JS.
- Use of mongoose(JavaScript Library) to Connect Node JS with MongoDB
- CRUD Operations in MongoDB using Node JS and Then Sending Data To Angular(Frontend of Our MEAN Project)
- Use of JWT(Json Web Token in our MEAN Stack Project)

Module 5 : Deployment of MEAN Project on Live Servers Using various web Services

- Use of Various Web Services Provided By AWS(Amazon Web Services)
- Deployment of Our Frontend(Angular) of Our MEAN Project using Amazon's "S3 Bucket" Web Service.
- Deployment of Node JS and Express Server using Render Web Service
- Use of MongoDB Atlas For Live Database Connections
- Use of MongoDB Compass to connect with MongoDB Atlas Cloud to monitor database and to perform database operations easily

Note :

1. **During Lectures You Have to Do Parallel Coding With Teacher for Better Understanding of All Above Concepts**

2. At the End Part of this Batch We Are Going To Cover Two Projects Based on MEAN Stack and will deploy them on live servers to gain HandsOn Experience on Deployment of Projects using various web services

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