**WEEK-3 ASSIGNMENT (MEAN DEVELOPMENT)**

1. **Explain in detail about MEAN stack.**

1.MEAN stack is a software stack that is completely uses java script to build dynamic web applications.

2.MEAN is an acronym in which each letter stands for the name of technology in the stack :

M for mongoDB

E for expressJS

A for angularjs

N for Node.js

3.MEAN stack developer should have a good understanding of :

* Frontend and backend processes.
* HTML and CSS.
* Programming templates and architechure design guidelines.
* Web development and continuous integration and cloud technologies.
* Database architechure.
* The software database lifecycle(SDLC) and what its like developing in an agile environment.

4. Advantages of MEAN Stack:

* It uses one language.
* Decouples frontend and Backend.
* Uses JSON
* Strong community

5. Disadvantages of MEAN stack:

* Dynamically Typed
* Not suitable for small Apps
* Required good understanding of JS
* Problems in JS

EXPLAINATION ABOUT MONGODB, EXPRESS.JS, ANGULAR.JS, NODE.JS:

1. **MONGODB:** it is a nosql database program that uses JSON-like BSON(binary JSON) documents with schema.

The role of the database in the MEAN stack is very commonly filled by MONGODB because its use of JSON like documents for interacting with data as opposed to the row/column model allows it to integrate well with the other (java script based) component of the stack.

1. **EXPRESS.JS:** Express.js is also referred as Express is a modular web application framework package for Node.js. While express is capable of acting as an interfacing web server, even supporting SSL/TLS out of the box , it is often used in conjunction with a reverse proxy such as NGNIX or Apache for performance reasons.
2. **ANGULAR.JS:**  It is an open source java script framework , maintained by google that assist with running single-page applictations.

Its goal is to augment browser based applications with mode-view-controller (MVC) capability, in an effort to make both development and testing easier.

1. **NODE.JS:**  It is the application runtime that the MEAN stack runs on.

The use of Node.js which is said to represent the “javascript everywhere” paradigm , is integral to the mean stack which relies on that concept.

Set up component of MEAN stack:

1.INSTALLING NODE:

* <http://nodejs.org/en/> link and download the latest version of Node.js from there.
* After downloading the Node’s executable file , we will install the Node.js by simply running its executable file.

1. Install the Angular CLI in the following way:

* We will use the npm i.e. node package manager to install the CLI tool globally on our system.
* The NPM installed automatically when we install the Node.JS.
* We will run the following Code to install the CLI.

“ npm install -g@angular/cli.

After installing the angular CLI , we will create a new angular project with the CLI and then we will add MONGODB , Node, express to that project later. First we will navigate into that folder where we want to create that project using the ng new command in the following way :

**C:\Users\ajeet\Onedrive\desktop\Mean Stack\ng New First-app.**

When we run this command, it will ask us two question, i.e. “ **would you like add Angular routing?”** and **“which stylesheet format would you like to use?”.**If you want to include angular routing press, “y” and use CSS format in the project.

“Aftercreating the project successfully , we will navigate to the project folder and run the following command:”

**C:\Users\ajeet\Onedrive\desktop\Mean Stack\ New First-app>ng serve.**

**This command is used to bring up a development only server.**

**INSTALLING IDE: “http://code.visualstudio.com/”**