

Mea(r)n stack Assignment

This Assignment belongs to

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Enrollment No.

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Mea(r)n Stack Assignment-I

1. What is Web Development?

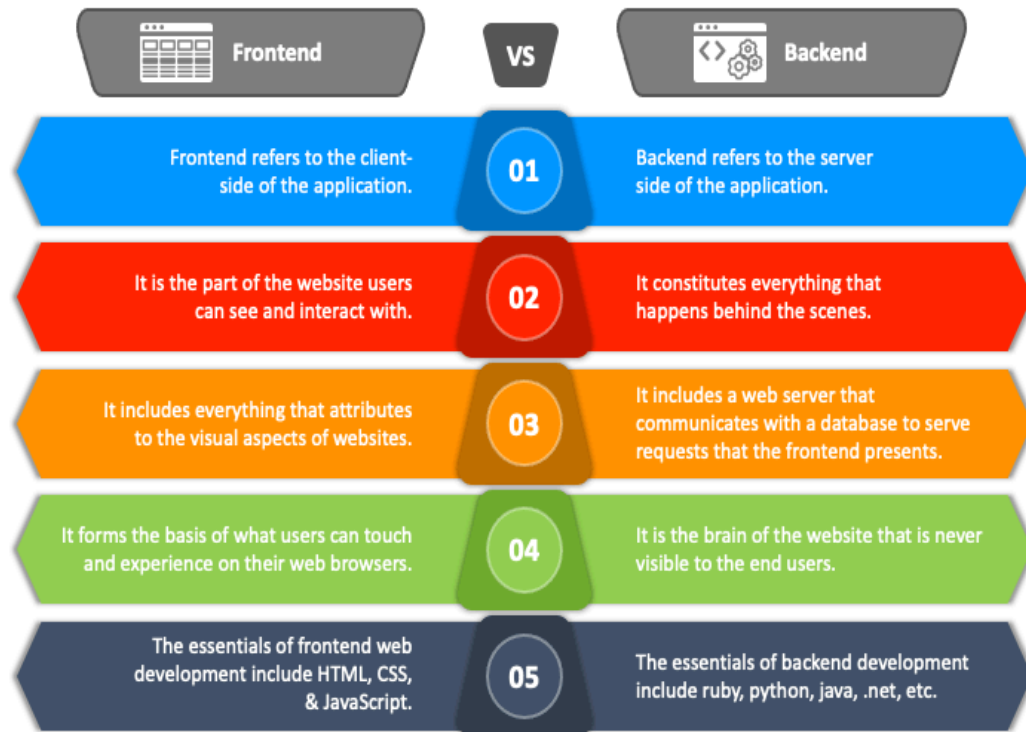
Web development refers to the process of creating, building, and maintaining websites and web applications that run on the internet. It involves designing the user interface, implementing business logic, managing databases, and ensuring proper communication between the client and server.

Web development is broadly classified into frontend development, backend development, and full-stack development.



2. Difference Between Frontend and Backend (with Examples)?

FRONTEND VS BACKEND



-Example:

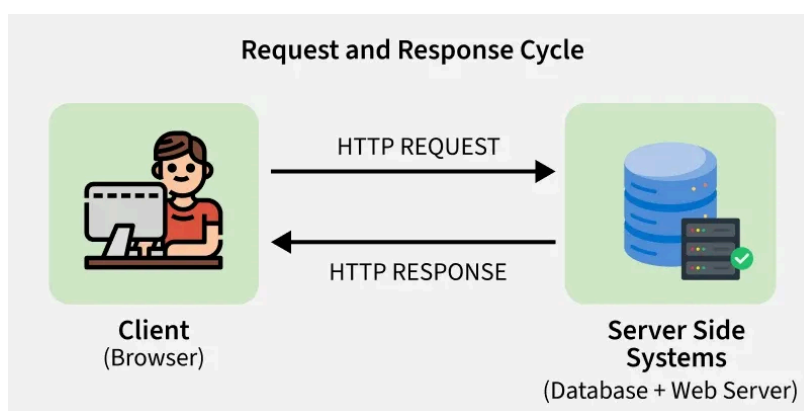
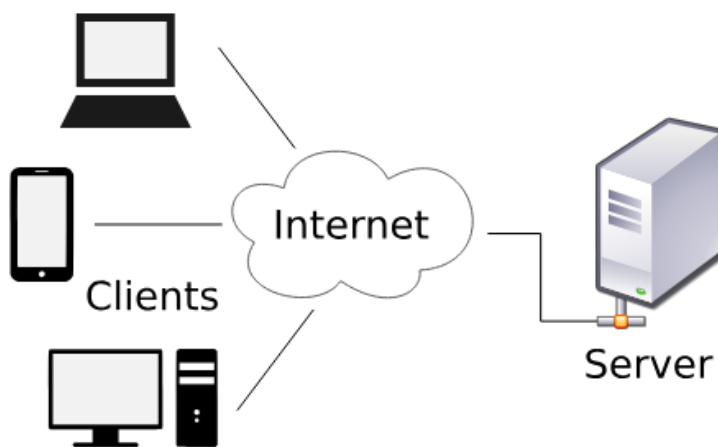
1. **Frontend:** A registration form created using Angular
2. **Backend:** A server API built with Node.js and Express that stores user data in a database.

3. Client–Server Communication

Client–server communication is a model where the client (browser or application) sends a request to the server, and the server processes the request and sends a response back.

Working:

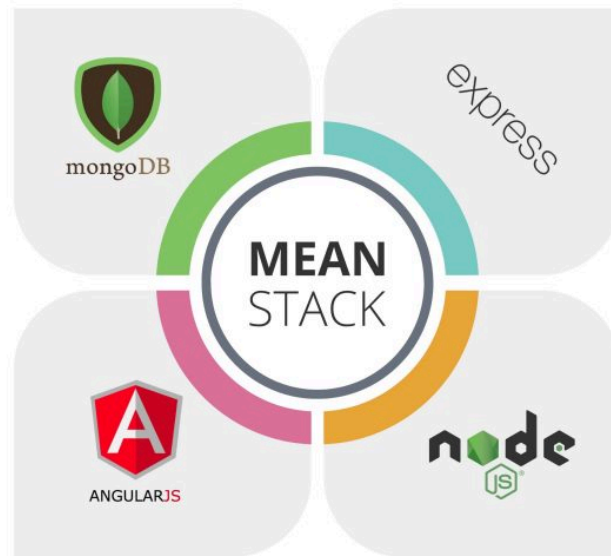
- Client sends an HTTP request (GET/POST)
- Server processes the request
- Server sends data or response back to the client



Example: When a user logs in, the client sends credentials to the server, the server validates them, and sends a success or failure response.

4. What is MEAN Stack?

The MEAN stack is a full-stack JavaScript framework used to build dynamic web applications. It uses a single programming language (JavaScript) across the entire application.



MEAN stands for:

- MongoDB – NoSQL database
- Express.js – Backend web framework
- Angular – Frontend framework
- Node.js – Server runtime environment

Advantages:

- Fast development
- High performance
- Same language for frontend and backend
- Scalable architecture

5. Install Angular CLI using `npm install -g @angular/cli`.

Angular CLI (Command Line Interface) is used to create and manage Angular projects.

command:

```
npm install -g @angular/cli
```

Explanation:

npm → Node Package Manager

install → installs the package

-g → installs globally

@angular/cli → Angular command-line tool

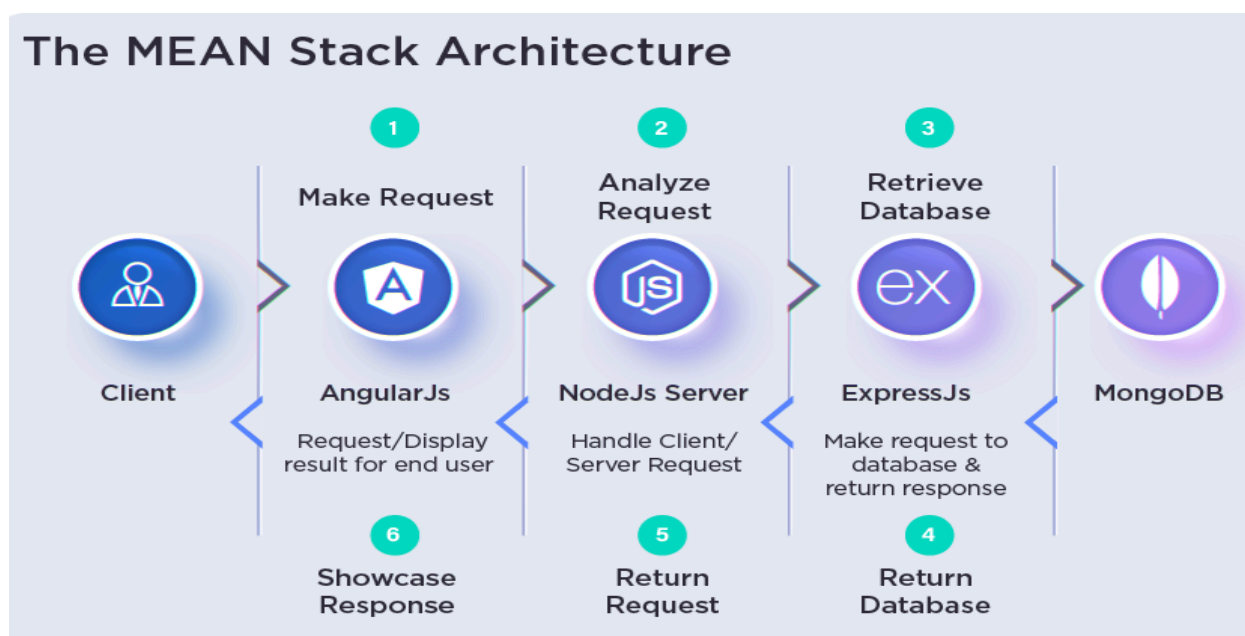
-After installation, check the version using:

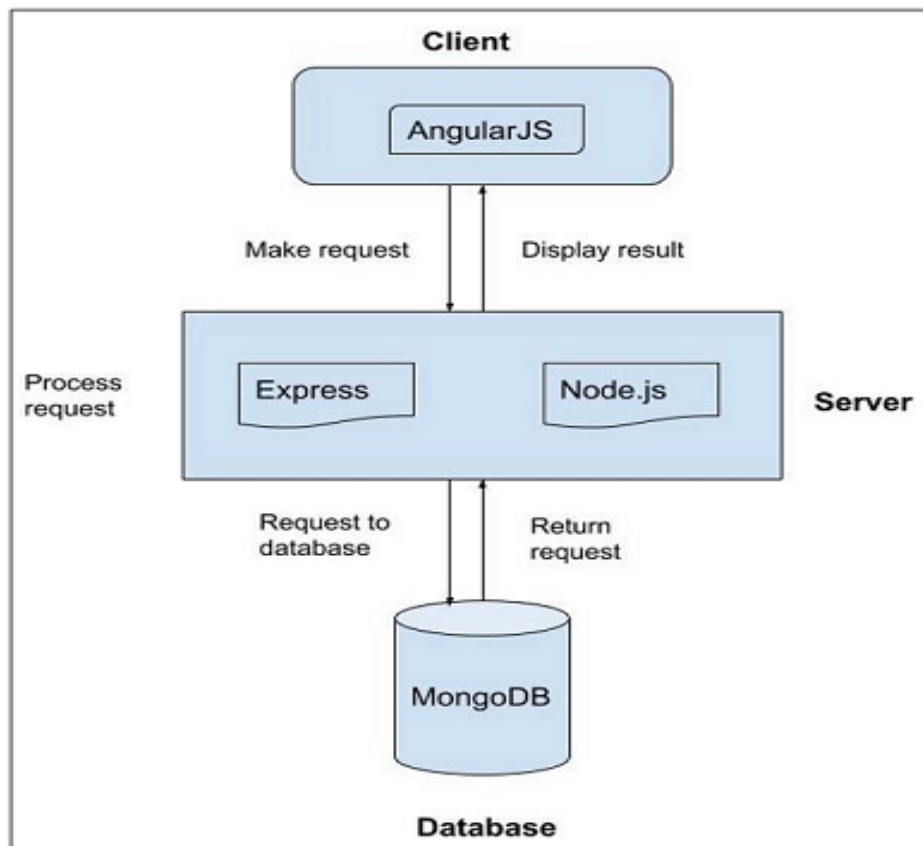
command:

```
ng version
```

6. Draw the MEAN architecture workflow?

-The MEAN architecture follows a layered approach:





-Workflow Explanation:

1. Client (Angular):

Handles user interface and sends HTTP requests.

2. Server (Express + Node.js):

Processes client requests, applies business logic, and communicates with the database.

3. Database (MongoDB):

Stores application data in a document-based format (JSON).

-Flow:

Client (Angular) → Server (Express + Node.js) → Database (MongoDB)