

MERN

↳ Pranner

1. Intro to Web dev

- Web dev → Process of building & developing Websites
- MERN Stack
 - Front end (Client Side) → UI and Visible Part
 - HTML, CSS, JavaScript, React Js
 - Backend (Server Side): Logic, Database authentication
 - Node.js, Express.js
 - Database: APP data Storage
 - MongoDB
- Full Stack developer: Frontend + Backend

2. Overview of the MERN Stack

M
Mongo DB



NoSQL
Database

Structure +
Unstructured
data

E

Express
Js



Framework
For Node Js
to Handle
Routing &
APIs

R

React
Js



Frontend Library
for Building
User Interface

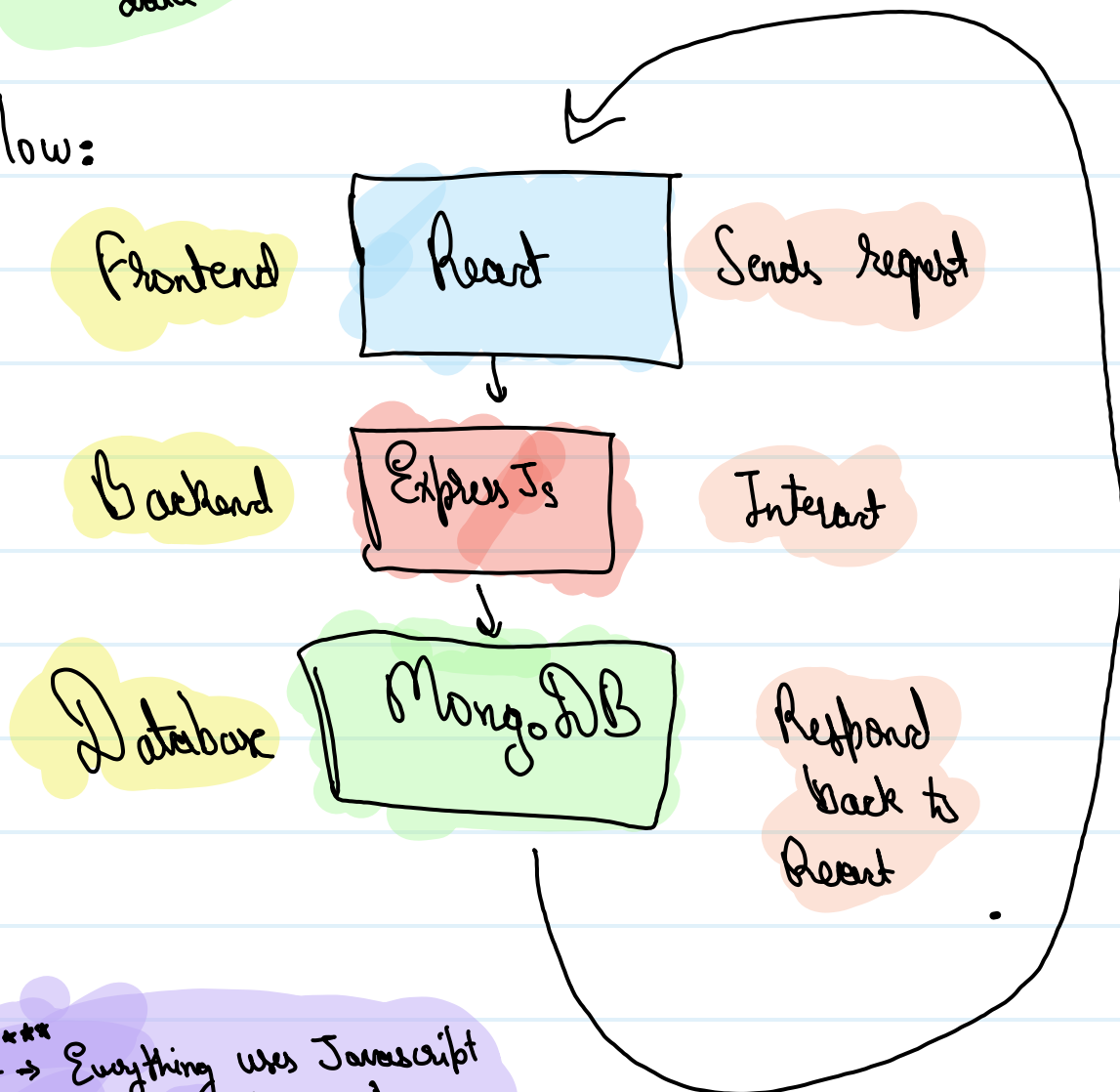
N

Node
Js



Javascript Runtime for
building Server Side Apps

Flow:



Note → Everything uses Javascript
(Easy to Manage)

3. Html Introduction

Hypertext Markup language

Std language for creating Web pages

Provide Structure of WebPage

Basic Html Structure

```
html
Copy Edit

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Page Title</title>
</head>
<body>
  <h1>Welcome to Web Development!</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

• $\langle H_1 \text{ to } H_6 \rangle \rightarrow$ Heading tags

• $\langle P \rangle \rightarrow$ Paragraph Tags

• $\langle a \rangle \rightarrow$ Anchor Tag

• $\langle \text{img} \rangle \rightarrow$ Insert image

• $\langle \text{div} \rangle \rightarrow$ Block Container

• $\langle \text{span} \rangle \rightarrow$ Inline Container

• $\langle \text{br} \rangle \langle \text{hr} \rangle \rightarrow$ line Break, horizontal Line

Important Tags

4. Advance HTML

(a) Forms → To collect user inputs

```
html                                                                    Copy Edit
<form action="/submit" method="POST">
  <label>Name:</label>
  <input type="text" name="username">
  <input type="submit" value="Submit">
</form>
```

Common Form Elements/Tags

- <input> → For Text, Email, Password etc.
- <text area> → for multi-line text
- <button> → for clickable button
- <Select>
 <option> → drop down lists

• For more Resources
Visit MDN Documentation

(B) Tables

↳ Used to display Tabular data

```
html Copy Edit  
  
<table border="1">  
  <tr>  
    <th>Name</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Alice</td>  
    <td>24</td>  
  </tr>  
</table>
```

- <Tr> → Table Row
- <Th> → Table Heading
- <Td> → Table description (Columns)

(C) Semantic Elements

These elements describe the Meaning of each Sections.

Tag	Purpose
<code><header></code>	Top section of a page
<code><footer></code>	Bottom section of a page
<code><nav></code> <i>→ TOC</i>	Navigation links
<code><section></code>	Defines sections in a page
<code><article></code>	Independent, self-contained content
<code><aside></code>	Content aside from the main content

Example

Example:

html

Copy

Edit

```

<header>
  <h1>My Website</h1>
</header>

<nav>
  <a href="#home">Home</a> |
  <a href="#about">About</a>
</nav>

<section>
  <h2>About Me</h2>
  <p>This is my story.</p>
</section>

<footer>
  <p>Copyright © 2025</p>
</footer>

```

→ ID of any element

↗

↘ <Section id = "home">

Redirect (Bookmark)

Extras

★ Formatting Tags → `<i>`, ``, ``,
``, ``,
`<insert>`, `<u>`

★ List tags → `` ``
 ↓
``

★ Media Element → `<video>` `<audio>`

↓
`<video controls>`
`<source src="Video.mp4" type="video">`
`</video>`

★ Same for audio tag

Quick Tip → HTML is still important
 Because React Components often
 generate HTML like code (JSX)