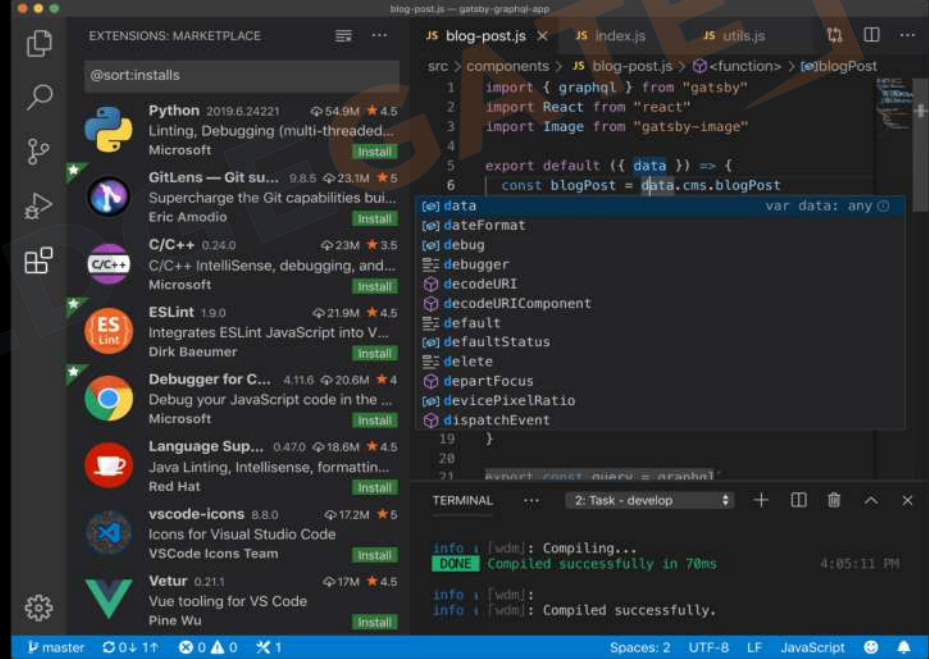


IDE Setup

1. IDE OR Code Editor




1.1 What is IDE

1. IDE stands for Integrated Development Environment.
2. Software suite that consolidates basic tools required for software development.
3. Central hub for coding, finding problems, and testing.
4. Designed to improve developer efficiency.



1.2 Need of IDE

1. Streamlines development.
2. Increases productivity.
3. Simplifies complex tasks.
4. Offers a unified workspace.
5. IDE Features
 1. Code Autocomplete
 2. Syntax Highlighting
 3. Version Control
 4. Error Checking



```
MainActivity.kt ×  
  
@Composable  
fun MessageCard(msg: Message) {  
    Row(modifier = Modifier.padding(all = 8.dp)) {  
        Image(  
            painter = painterResource(R.drawable.android_studio_logo),  
            contentDescription = "Profile Picture",  
            modifier = Modifier  
                .size(45.dp)  
        )  
  
        Spacer(modifier = Modifier.width(8.dp))  
        Column(modifier =  
            .background(color = Color.White)) {  
            Text(text = msg.author, color = Color.Black)  
            Spacer(modifier = Modifier.height(1.dp))  
            Text(text = msg.body, color = Color.Black)  
        }  
    }  
}
```



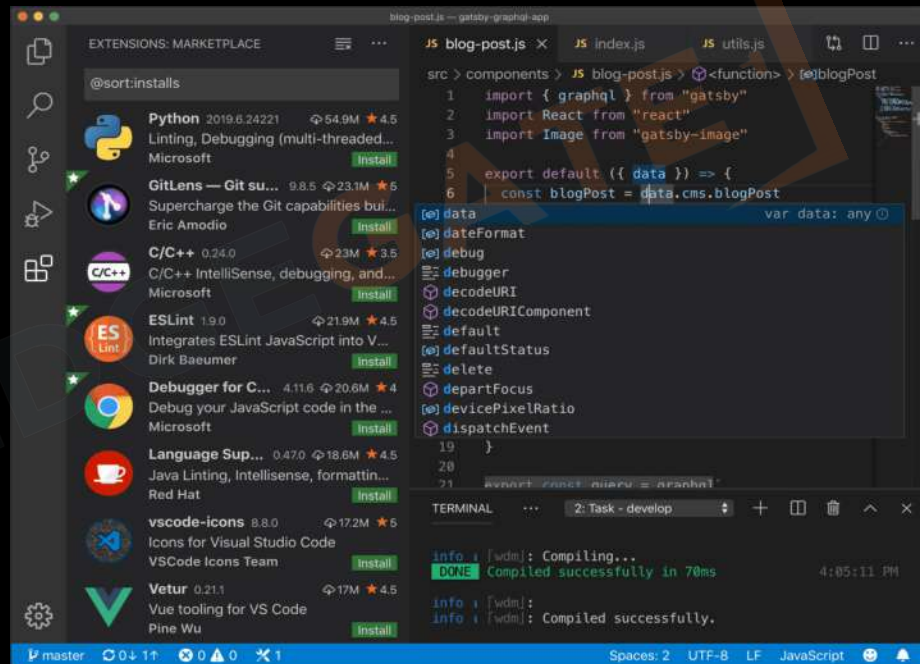
1.3 IDE Selection

1. Sublime Text

2. Atom

3. VS Code

4. Github CodeSpaces





1.4 Installation & Setup

1. Search VS Code
2. Keep Your **Software** up to date



1.5 VsCode Extensions

1. Live Server / Live Preview
2. Prettier (Format on Save)
3. Line Wrap
4. Tab Size from 4 to 2



1.6 Client Side vs Server Side

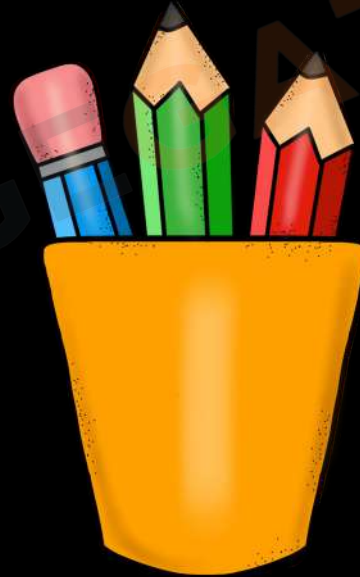
	Client Side	Server Side
Execution Location	Executes on user's device.	Executes on a remote machine.
Languages	Primarily JavaScript, HTML, CSS.	PHP, Python, Java, Node.js, etc.
Main Job	Makes clicks and scrolls work	Manages saved information
Access Level	Can't access server data directly	Can read/write files, interact with databases.
Speed	Quicker for UI changes	Slower due to network latency.

Revision

Setup

1. IDE or Code Editor

1. What is IDE
2. Need of IDE
3. IDE Selection
4. Installation and Setup
5. VsCode Extensions
6. Client Side vs Server Side



Level 1

HTML Basics



1. Starting Up

1.1 First file using Text Editor

1. Create a folder with name **First Project** on your Desktop.
2. Open **Notepad**.
3. Create a file and save it as **index.html**
4. Copy Sample code
5. Open **Browser** and Check.



1.2 File Extension

HTML

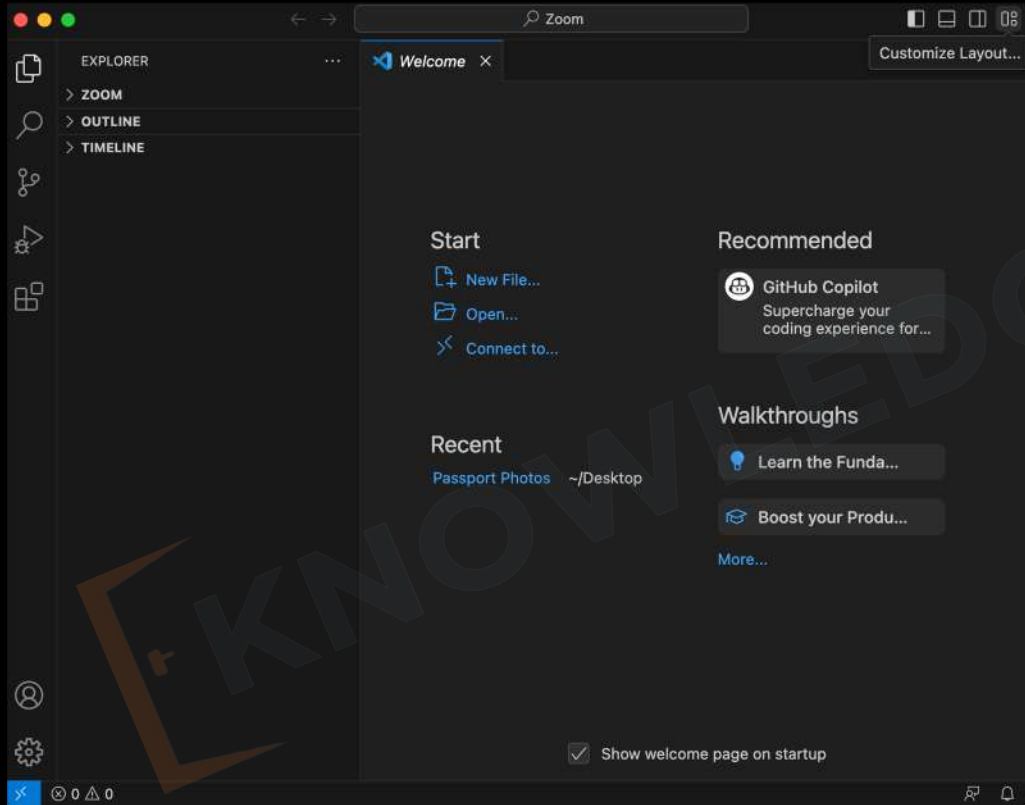
1. Most commonly used.
2. Works across all browsers.
3. Widely recognized and supported.
4. Typically saved as .html.



HTM

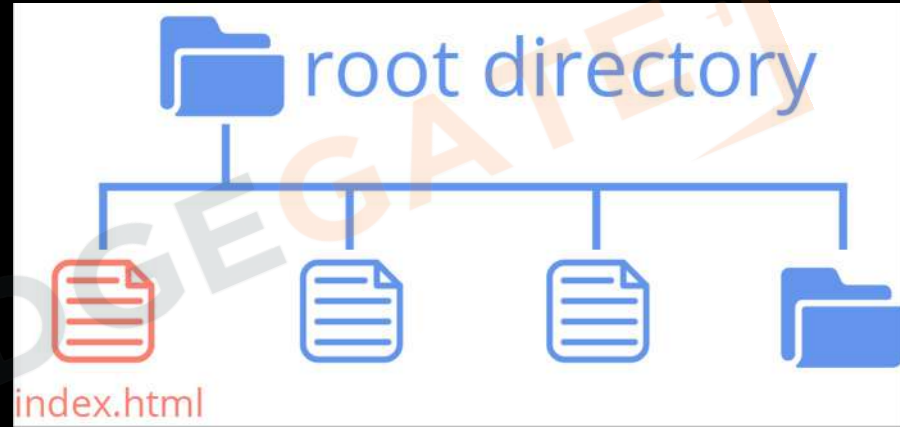
1. Less commonly used.
2. Originated for compatibility with older systems.
3. Works same as .html.
4. Typically saved as .htm.

1.3 Opening project in VsCode



1.4 Importance of `index.html`

1. **Default name** of a website's homepage.
2. **First page** users see when visiting a website
3. Important for **SEO** (Search Engine Optimization)
4. Provides uniform **starting point** across servers
5. Serves as **fallback** when no file is specified in URL



Level 1

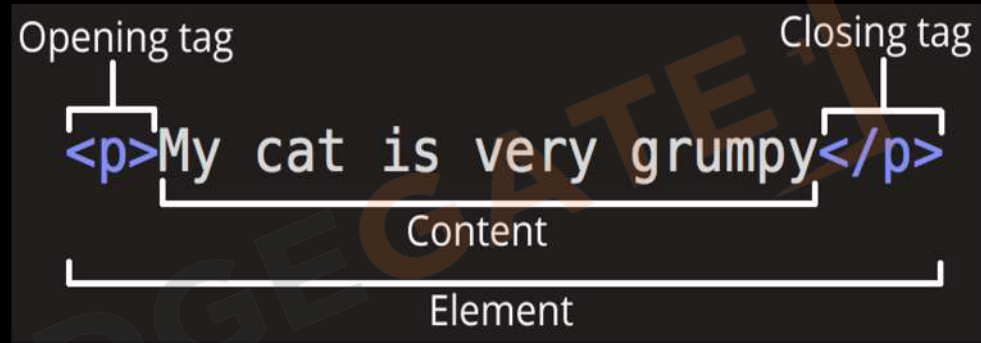
HTML Basics



2. Basics of HTML

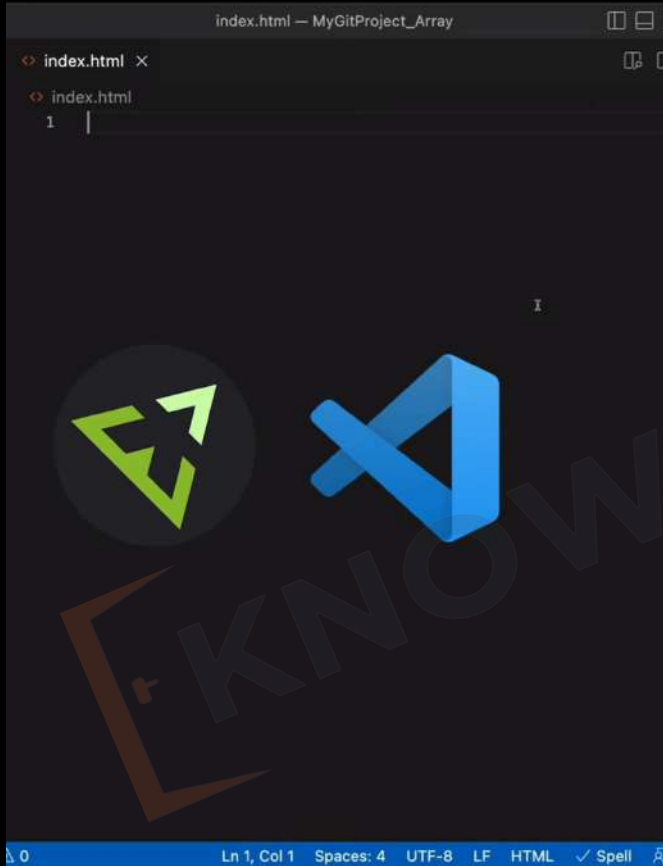
2.1 What are Tags

1. **Elements** that are used to create a website are called HTML Tags.
2. Tags can contain **content or other HTML tags**.
3. Define elements like **text, images, links**



2.2 Using Emmet ! to generate code

1. Type **!** and wait for suggestions.



2.3 Basic HTML Page

```
<!DOCTYPE html>
```

Defines the HTML Version

```
<html lang="en">
```

Parent of all HTML tags / Root element

```
<head>
```

Parent of meta data tags

```
<title>My First Webpage</title>
```

Title of the web page

```
</head>
```

```
<body>
```

Parent of content tags

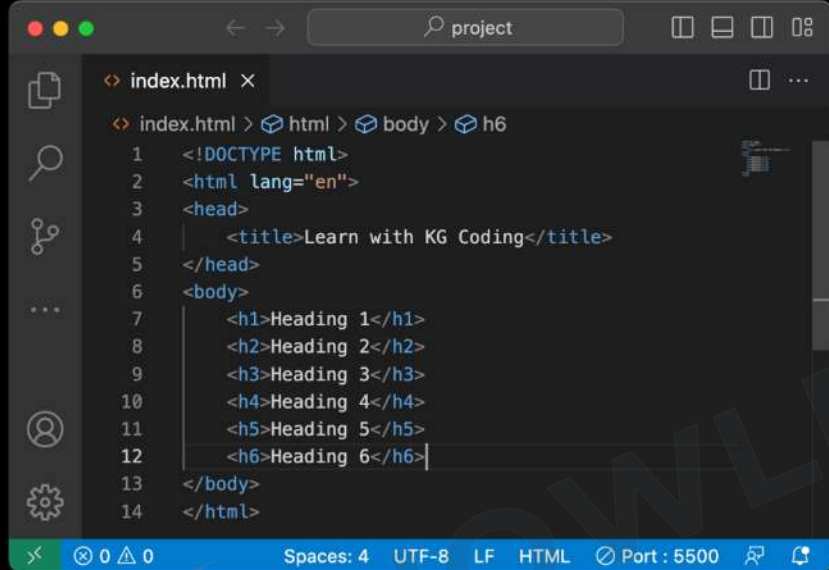
```
<h1>Hello World!</h1>
```

Heading tag

```
</body>
```

```
</html>
```

2.4 Heading Tag

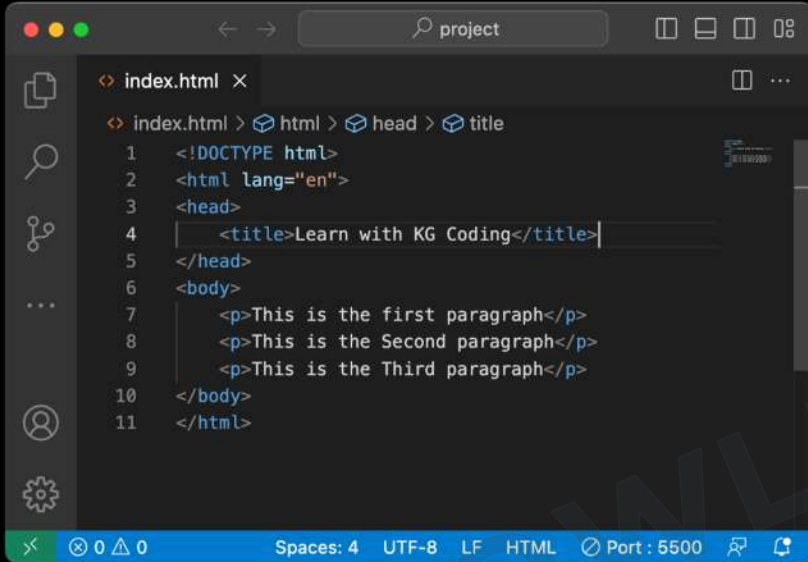


```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Learn with KG Coding</title>
</head>
<body>
  <h1>Heading 1</h1>
  <h2>Heading 2</h2>
  <h3>Heading 3</h3>
  <h4>Heading 4</h4>
  <h5>Heading 5</h5>
  <h6>Heading 6</h6>
</body>
</html>
```

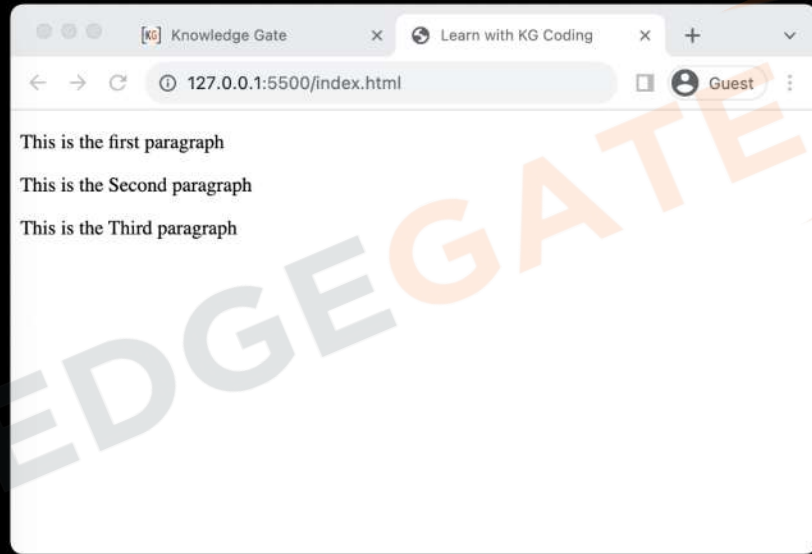


1. Defines **headings** in a document
2. Ranges from **<h1>** to **<h6>**
3. **<h1>** is most important, **<h6>** is least
4. Important for **SEO**
5. Helps in structuring content

2.5 Paragraph Tag



```
index.html X
index.html > html > head > title
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title>Learn with KG Coding</title>
5 </head>
6 <body>
7   <p>This is the first paragraph</p>
8   <p>This is the Second paragraph</p>
9   <p>This is the Third paragraph</p>
10 </body>
11 </html>
```



1. Used for defining paragraphs
2. Enclosed within `<p>` and `</p>` tags
3. Adds automatic spacing before and after
4. Text wraps to next line inside tag
5. Common in text-heavy content

2.6 MDN Documentation

1. Visit <https://developer.mozilla.org/>
2. **Official resource** for HTML
3. Offers comprehensive guides and tutorials
4. Includes examples for real-world use
5. **Updated** with latest HTML features
6. **Trusted** by developers worldwide

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device
6         width, initial-scale=1.0">
7     <title>Document</title>
8     <body>
9         <div>
10             <h1>Document</h1>
11             <h2>Document</h2>
12             <h3>Document</h3>
13             <h4>Document</h4>
14             <h5>Document</h5>
15             <h6>Document</h6>
16             <h7>Document</h7>
17             <h8>Document</h8>
18             <h9>Document</h9>
19             <h10>Document</h10>
20             <h11>Document</h11>
21             <h12>Document</h12>
22             <h13>Document</h13>
23             <h14>Document</h14>
24             <h15>Document</h15>
25             <h16>Document</h16>
26             <h17>Document</h17>
27             <h18>Document</h18>
28             <h19>Document</h19>
29             <h20>Document</h20>
30             <h21>Document</h21>
31             <h22>Document</h22>
32             <h23>Document</h23>
33             <h24>Document</h24>
34             <h25>Document</h25>
35             <h26>Document</h26>
36             <h27>Document</h27>
37             <h28>Document</h28>
38             <h29>Document</h29>
39             <h30>Document</h30>
40             <h31>Document</h31>
41             <h32>Document</h32>
42             <h33>Document</h33>
43             <h34>Document</h34>
44             <h35>Document</h35>
45             <h36>Document</h36>
46             <h37>Document</h37>
47             <h38>Document</h38>
48             <h39>Document</h39>
49             <h40>Document</h40>
50             <h41>Document</h41>
51             <h42>Document</h42>
52             <h43>Document</h43>
53             <h44>Document</h44>
54             <h45>Document</h45>
55             <h46>Document</h46>
56             <h47>Document</h47>
57             <h48>Document</h48>
58             <h49>Document</h49>
59             <h50>Document</h50>
60             <h51>Document</h51>
61             <h52>Document</h52>
62             <h53>Document</h53>
63             <h54>Document</h54>
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74             <h65>Document</h65>
75             <h66>Document</h66>
76             <h67>Document</h67>
77             <h68>Document</h68>
78             <h69>Document</h69>
79             <h70>Document</h70>
80             <h71>Document</h71>
81             <h72>Document</h72>
82             <h73>Document</h73>
83             <h74>Document</h74>
84             <h75>Document</h75>
85             <h76>Document</h76>
86             <h77>Document</h77>
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90             <h81>Document</h81>
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95             <h86>Document</h86>
96             <h87>Document</h87>
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98             <h89>Document</h89>
99             <h90>Document</h90>
100            <h91>Document</h91>
101            <h92>Document</h92>
102            <h93>Document</h93>
103            <h94>Document</h94>
104            <h95>Document</h95>
105            <h96>Document</h96>
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110            <h101>Document</h101>
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117            <h108>Document</h108>
118            <h109>Document</h109>
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120            <h111>Document</h111>
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126            <h117>Document</h117>
127            <h118>Document</h118>
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129            <h120>Document</h120>
130            <h121>Document</h121>
131            <h122>Document</h122>
132            <h123>Document</h123>
133            <h124>Document</h124>
134            <h125>Document</h125>
135            <h126>Document</h126>
136            <h127>Document</h127>
137            <h128>Document</h128>
138            <h129>Document</h129>
139            <h130>Document</h130>
140            <h131>Document</h131>
141            <h132>Document</h132>
142            <h133>Document</h133>
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144            <h135>Document</h135>
145            <h136>Document</h136>
146            <h137>Document</h137>
147            <h138>Document</h138>
148            <h139>Document</h139>
149            <h140>Document</h140>
150            <h141>Document</h141>
151            <h142>Document</h142>
152            <h143>Document</h143>
153            <h144>Document</h144>
154            <h145>Document</h145>
155            <h146>Document</h146>
156            <h147>Document</h147>
157            <h148>Document</h148>
158            <h149>Document</h149>
159            <h150>Document</h150>
160            <h151>Document</h151>
161            <h152>Document</h152>
162            <h153>Document</h153>
163            <h154>Document</h154>
164            <h155>Document</h155>
165            <h156>Document</h156>
166            <h157>Document</h157>
167            <h158>Document</h158>
168            <h159>Document</h159>
169            <h160>Document</h160>
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179            <h170>Document</h170>
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181            <h172>Document</h172>
182            <h173>Document</h173>
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184            <h175>Document</h175>
185            <h176>Document</h176>
186            <h177>Document</h177>
187            <h178>Document</h178>
188            <h179>Document</h179>
189            <h180>Document</h180>
190            <h181>Document</h181>
191            <h182>Document</h182>
192            <h183>Document</h183>
193            <h184>Document</h184>
194            <h185>Document</h185>
195            <h186>Document</h186>
196            <h187>Document</
```

2.7 Comments

1. Used to add **notes** in HTML code
2. **Not displayed** on the web page
3. Syntax: **<!-- Comment here -->**
4. Helpful for **code organization**
5. Can be **multi-line** or **single-line**

Writing comments in HTML

Single-line
Comment

```
1 <!--This is a single line  
comment in HTML. You cannot  
see it on a webpage. Click  
on view-source to see a  
message I left just for you.  
-->
```

Multi-line
Comment

```
1 <!-- This is a multi-line  
comment in HTML.  
2 You cannot see it on a  
webpage.  
3 If you view-source on the  
browser you can see the  
comment there.-->
```

2.8 Case Sensitivity

1. HTML is **case-insensitive** for tag names
2. Attribute names are also be case-insensitive
3. Best practice: **use lowercase** for consistency

`<html>` = `<HTML>`

`<p>` = `<P>`

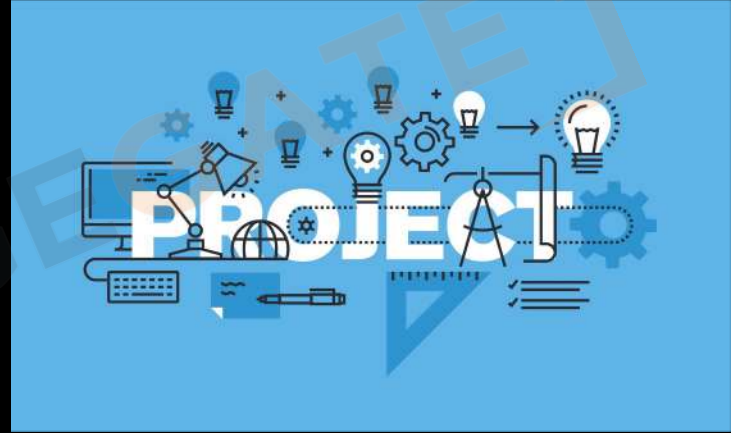
`<head>` = `<HEAD>`

`<body>` = `<BODY>`

Practice Exercise

HTML Basics

1. Create a **new project** with Index.html
2. Generate boilerplate code using Emmet
3. Write "I am learning with **Prashant sir**"
4. Use **comments**
5. Also use **Case insensitive** tags



Practice Exercise

HTML Basics

Assignment: Adding Comments and Case Sensitivity

➤ **Objective:** Use comments and demonstrate case sensitivity in HTML.

➤ **Instructions:**

- Open your index.html file in VS Code.
- Add a comment at the top of the file: `<!-- This is my first HTML project -->`.
- Use various tags in different cases (e.g., `<H1>`, `<p>`, `<DIV>`, ``).
- Ensure that the HTML is still valid and displays correctly in the browser.
- Add another comment explaining why HTML is case-insensitive but best practice is to use lowercase.

Practice Exercise

HTML Basics

Assignment:

- **Objective:** Utilize MDN documentation for HTML.
- **Instructions:**
 - Visit [MDN Web Docs](#).
 - Find the documentation for the `<h1>` tag.
 - Write a short summary of what you learned about the `<h1>` tag from the documentation.
 - Include an example usage of the `<h1>` tag in your `index.html` file.