2.Purpose of Comments in HTML

The primary purposes of comments in HTML are:

1. **Documentation**: Comments help explain what the code is doing. This is useful for anyone reading the code, including yourself if you come back to it after some time.

2. **Debugging**: Comments can be used to temporarily disable parts of the code without deleting them, which helps in troubleshooting issues.

3. **Collaboration**: Comments help communicate with other developers about specific parts of the code, making it easier to understand and maintain.

4. --

4.Tags are the building blocks of an HTML document. They are used to create elements that define the structure and content of a web page. Tags usually come in pairs: an opening tag and a closing tag, with content between them.

- **Syntax**: <tagname>content</tagname>

- **Example**: <p>This is a paragraph.</p>

Some tags are self-closing and don't need a closing tag.

- **Self-closing tag**: <img src="image.jpg" alt="Description">

Elements in HTML

Elements consist of the opening tag, the content, and the closing tag. An element can include other elements, creating a nested structure.

- **Syntax**: <tagname>content</tagname>

- **Example**: <p>This is a paragraph.</p>

Elements can have attributes that provide additional information about the element. Attributes are placed within the opening tag.

- **Example with attribute**: <a href="https://example.com">Visit

<!DOCTYPE html>

<html>

<head>

   <title>Sample HTML Document</title>

</head>

<body>

   <h1>Hello, World!</h1>

   <p>This is a paragraph.</p>

</body>

</html>

 Placement: The DOCTYPE declaration must be at the very top of the HTML document.

 HTML5: For HTML5, the declaration is simply <!DOCTYPE html>.

 Browser Rendering: Helps browsers to render the page in standards mode rather than quirks mode, ensuring consistency across different web browsers.

index.html

```html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>HTML1</title>
7  </head>
8  <body>
9      <H1 style="color: olivedrab;">
10         <i>"HTML defines the content and structure of your websites"</i>
11     </H1>
12 </body>
13 </html>
```

index2.html

```html
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta name="viewport" content="width=<device-width>, initial-scale=1.0">
6       <title>Document</title>
7   </head>
8   <body>
9       <h2 style="color: rgb(248, 64, 94);">Hello!Sameeksha this side</h2>
10      <h2>Pleased to meet you guys!</h2>
11  <span>b-tech</span>
12  <br/>
13  <span>passionate toward coding</span>
14
15      <p>Lorem ipsum dolor, sit amet consectetur adipisicing elit. Inventore tenetur aut labore, cupiditate quidem at veritatis
    asperiores eos illo, magnam sunt beatae sapiente sit itaque doloremque, et impedit porro. Nesciunt.</p>
16      <hr/>
17
18  </body>
19  </html>
```