



# Web programming I

Section 1

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# HTML comments

- Syntax : <!-- text comment -->
- With comments you can place notifications and reminders in your HTML code
- Comments can be used to hide content.
- You can also hide more than one line
- Comments can be used to hide parts in the middle of the HTML code.

# Description List

## <dl> tag

- HTML description list to create a list where list items include terms and descriptions of the term.
- <dl> description list container for all terms and data
- <dt> description term define terms or name
- <dd> description data Describes or defines the term.

ex

The image shows a screenshot of a web development environment. On the left, there is a code editor window titled "index.html" with the following content:

```
<!DOCTYPE html>
<html>
  <head><title>formatting text</title> </head>
  <body>
    <dl>
      <dt>HTML</dt>
      <dd>HyperText Markup Language</dd>
      <dt>CSS</dt>
      <dd>Cascading Style Sheets</dd>
    </dl>
  </body>
</html>
```

On the right, there is a browser window titled "formatting text" displaying the rendered HTML. The browser window shows the title "formatting text", the URL "127.0.0.1:5500/index.html", and the content "HTML HyperText Markup Language" and "CSS Cascading Style Sheets".

# HTML Tables

- A table in HTML consists of table cells inside rows and columns.
- Table is defined by the `<table>` tag
- Table rows defined by `<tr>` tag
- Table header defined by `<th>` tag
- Table data/cell is defined with the `<td>` tag
- Every thing between `<td></td>` is the table content

# Ex

The screenshot shows the Visual Studio Code interface with a browser preview window. The left sidebar has icons for File, Edit, Selection, View, Go, Run, and others. The main area shows a file tree with 'RUN AND DEBUG' and 'RUN' sections. Under 'RUN', there's a 'Run and Debug' button, a note about creating a launch.json file, and instructions for using a terminal command or interactive chat. The central part displays the code for 'index.html' in a dark-themed editor. The code defines a simple HTML page with a table containing two rows of data. The right side shows a browser window titled 'home page' at '127.0.0.1:5500/index.html'. The browser displays the rendered HTML with two rows of data: 'Name Age City' and 'John Doe 30 New York' followed by 'Jane Smith 25 Los Angeles'.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title> home page </title>
    <body>
        <table>
            <thead>
                <tr>
                    <th> Name </th>
                    <th> Age </th>
                    <th> City </th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td> John Doe </td>
                    <td> 30 </td>
                    <td> New York </td>
                </tr>
                <tr>
                    <td> Jane Smith </td>
                    <td> 25 </td>
                    <td> Los Angeles </td>
                </tr>
            </tbody>
        </table>
    </body>
</html>
```

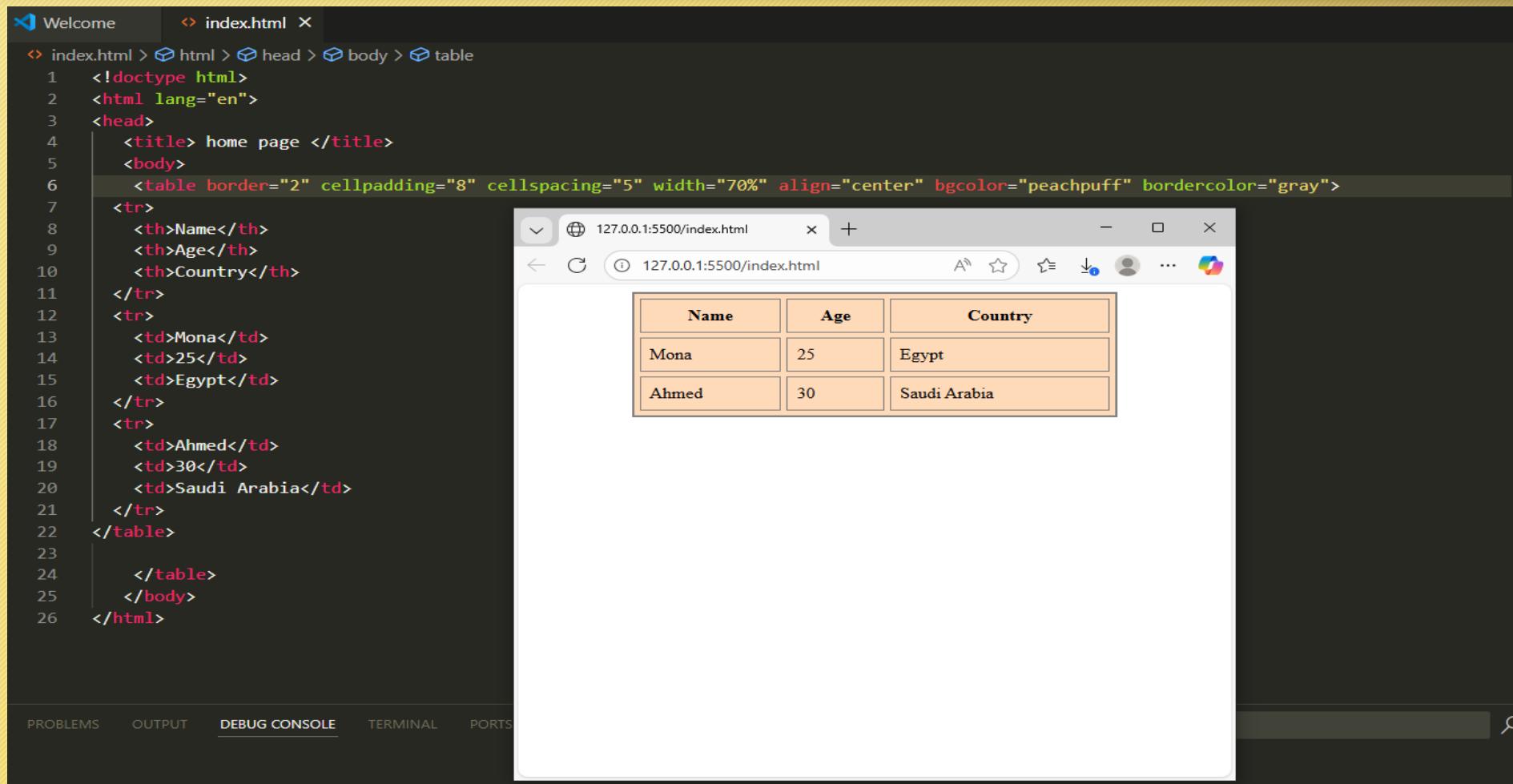
home page

Name	Age	City
John Doe	30	New York
Jane Smith	25	Los Angeles

# Table attributes

Attribute	Description
Border	Defines the thickness of the table border
cellpadding	Space between cell content and cell border
cellspacing	Space between cells
width	Sets the table width
height	Sets the table height
align	Aligns the table (left, center, right)
bgcolor	Background color of the table
bordercolor	Border color of the table

# Ex



index.html

```
1  <!doctype html>
2  <html lang="en">
3  <head>
4      <title> home page </title>
5  <body>
6      <table border="2" cellpadding="8" cellspacing="5" width="70%" align="center" bgcolor="peachpuff" bordercolor="gray">
7          <tr>
8              <th>Name</th>
9              <th>Age</th>
10             <th>Country</th>
11         </tr>
12         <tr>
13             <td>Mona</td>
14             <td>25</td>
15             <td>Egypt</td>
16         </tr>
17         <tr>
18             <td>Ahmed</td>
19             <td>30</td>
20             <td>Saudi Arabia</td>
21         </tr>
22     </table>
23
24     </body>
25
26 </html>
```

127.0.0.1:5500/index.html

Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

# <caption> tag

- add caption to table
- Main attribute in caption tag is align
- Value of align attribute =""
  - I. Top default
  - II. Bottom
  - III. Right
  - IV. Left

# Ex

The screenshot shows the Visual Studio Code (VS Code) interface. On the left is the sidebar with icons for File, Edit, Selection, View, Go, Run, etc. The main area has tabs for 'Welcome' and 'index.html'. The code editor displays the following HTML code:

```
1 <!doctype html>
2 <html lang="en">
3   <head>
4     <title> home page </title>
5   </head>
6   <body>
7     <table border="2" cellpadding="8" cellspacing="5" width="70%" align="center" bgcolor="peachpuff" bordercolor="gray">
8       <caption align="bottom"><h2> User Information </h2></caption>
9       <tr>
10         <th>Name</th>
11         <th>Age</th>
12         <th>Country</th>
13       </tr>
14       <tr>
15         <td>Mona</td>
16         <td>25</td>
17         <td>Egypt</td>
18       </tr>
19       <tr>
20         <td>Ahmed</td>
21         <td>30</td>
22         <td>Saudi Arabia</td>
23       </tr>
24     </table>
25   </body>
26 </html>
```

To the right of the code editor is a browser preview window showing the rendered HTML. The browser title is 'home page' and the URL is '127.0.0.1:5500/index.html'. The page displays a table with the following data:

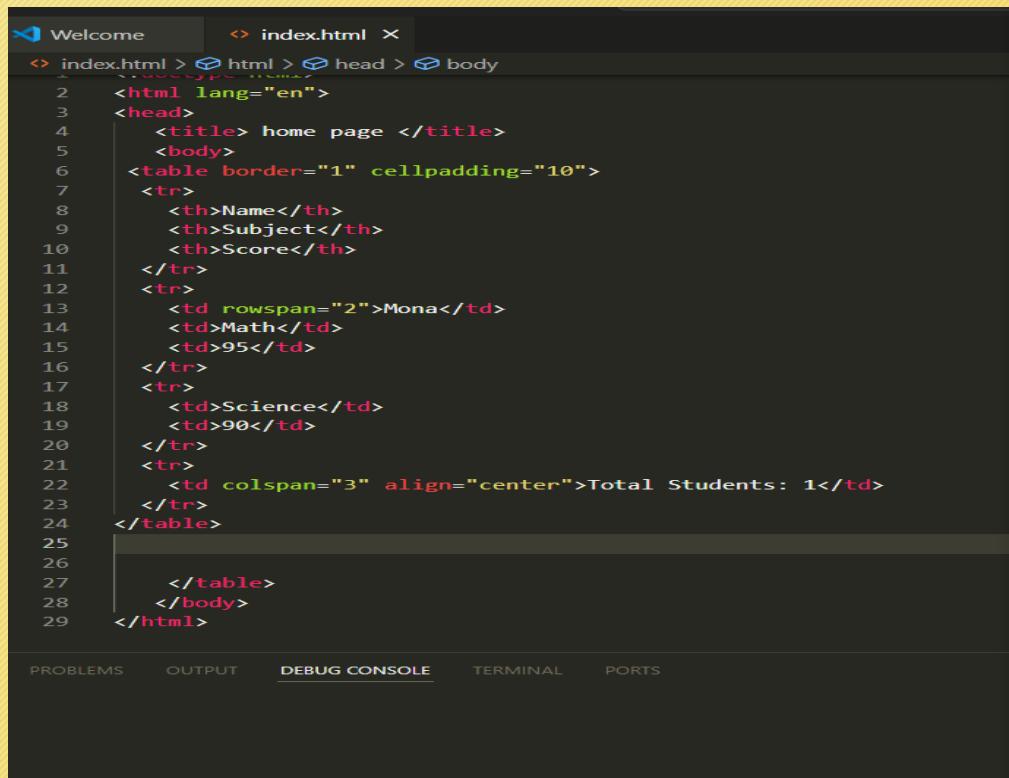
Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

The table has a caption 'User Information' centered above it.

At the bottom of the interface, there are tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, and TERMINAL. The DEBUG CONSOLE tab is currently selected. The status bar at the bottom right shows the number '500'.

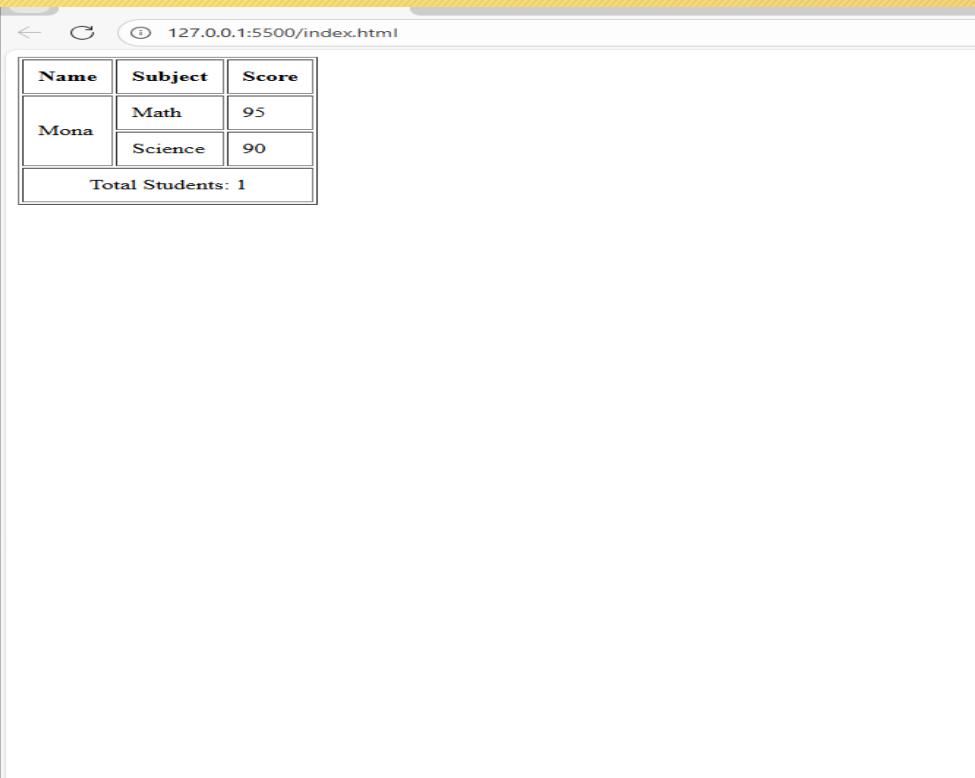
# Colspan&rowspan

- Colspan : merge cells horizontally Rowspan:merge cells vertically



A screenshot of a code editor showing the content of index.html. The code defines a simple HTML structure with a table. The table has three columns: Name, Subject, and Score. The first row contains three empty th tags. The second row contains three td tags, with the first one having a rowspan="2" attribute. The third row contains two td tags. The fourth row contains two td tags. The fifth row contains one td tag with a colspan="3" attribute.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title> home page </title>
  </head>
  <body>
    <table border="1" cellpadding="10">
      <tr>
        <th>Name</th>
        <th>Subject</th>
        <th>Score</th>
      </tr>
      <tr>
        <td rowspan="2">Mona</td>
        <td>Math</td>
        <td>95</td>
      </tr>
      <tr>
        <td>Science</td>
        <td>90</td>
      </tr>
      <tr>
        <td colspan="3" align="center">Total Students: 1</td>
      </tr>
    </table>
  </body>
</html>
```



A screenshot of a web browser showing the rendered HTML from index.html. The browser address bar shows 127.0.0.1:5500/index.html. The table has three columns: Name, Subject, and Score. The first row contains three empty th tags. The second row contains three td tags, with the first one having a rowspan="2" attribute. The third row contains two td tags. The fourth row contains two td tags. The fifth row contains one td tag with a colspan="3" attribute. A footer message "Total Students: 1" is displayed below the table.

Name	Subject	Score
Mona	Math	95
	Science	90
Total Students: 1		

# Table Structure

- <thead>:defines the **header** section
- <tbody>:defines **main** section(data)
- <tfoot>:defines the **footer** (totals or summary)

# Example

```
1  <!doctype html>
2  <html>
3      <head><title> simple table1</title></head>
4  <body>
5
6  <table border="3">
7      <thead>
8          <tr>
9              <th> name </th>
10             <th> price </th>
11             <th> desc </th>
12
13         </thead>
14         <tbody>
15             <tr>
16                 <td> toy </td>
17                 <td> 200 </td>
18                 <td> very good </td>
19
20         </tr>
21         <tr>
22             <td> mobile </td>
23             <td> 5000 </td>
24             <td> good </td>
25
26     </tbody >
27 </table>
28 </body>
29 </html>
```

# example

The image shows a code editor interface on the left and a web browser window on the right, demonstrating the execution of an HTML file.

**Code Editor (index.html):**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>Index Page</title>
  </head>
  <body>
    <table border="1">
      <thead>
        <tr>
          <th>Name</th>
          <th>Score</th>
          <th>Subject</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Mona</td>
          <td>95</td>
          <td>Math</td>
        </tr>
        <tr>
          <td>Ahmed</td>
          <td>88</td>
          <td>Science</td>
        </tr>
      </tbody>
    </table>
    <tfoot>
      <tr>
        <td colspan="3">Total Students: 2</td>
      </tr>
    </tfoot>
  </body>
</html>
```

**Browser Output:**

The browser window displays the rendered HTML content. It shows a table with two rows of student data and atfoot section with a single row containing a colspan="3" cell.

Name	Score	Subject
Mona	95	Math
Ahmed	88	Science

Total Students: 2

# Example of using table to design the page

```
<!DOCTYPE html>
<html>
<head> <title>home</title></head>
<body>
    <table border="1" bgcolor="silver" align="center" width="100%" >
        <!--banner-->
        <tr>
            <td height="150" > </td>
        </tr>
        <!--navigation bar-->
        <tr>
            <td height="50" >
                <nav align="center">
                    <font size="6">
                        <a href="http://www.facebook.com" target="_blank"> Facebook</a> |
                        <a href="http://www.yahoo.com" target="_blank"> yahoo</a> |
                        <a href="http://www.youtube.com" target="_blank"> youtube</a>
                    </font>
                </nav>
            </td>
        </tr>
    </table>
</body>
</html>
```

```
<!--content and sidebar-->
<tr>
    <td>
        <table width="100%" height="600" border="1" align="center">
            <tr>
                <td width="60%" bgcolor="red">content</td>
                <td width="40%" bgcolor="yellow">sidebar</td>
            </tr>
        </table>
    </td>
</tr>
<tr>
    <td height="50" bgcolor="gray" align="center">@copyright</td>
</tr>
</table>
</body>
</html>
```

# Text formatting

- **<b> text</b>**: make text bold
- **<i> text </i>** : make text italic
- **<u> text</u>**: make underlined text

```
<p><b><i><u>This is a paragraph too. </u></i></b></p>
```

This is a paragraph too.

# Logical tags

- Logical tags convey the meaning or importance of the text without necessarily altering its visual appearance. These tags help browsers, search engines, and assistive technologies understand the purpose of the text.
- <em>: Emphasizes text, typically rendered in italics. It implies that the text carries special importance or requires emphasis.
- <strong>: Marks text as important, often displayed in bold. It implies the content is of strong importance.

# Physical Tags

- Physical tags directly affect how text looks on the webpage by changing the font, size, or style.
- **b**: Displays text in bold without implying importance.
- *i*: Italicizes text without any implied emphasis.

# Text formatting cont

- <**small**> text</**small**>:make small text
- <**sup**> make superscript text
- <**sub**>make subscript text
- <**del**> Defines deleted text
- <**ins**> Specifies inserted text text new text after deleted text
- <**mark**> defines the marked or highlighted text

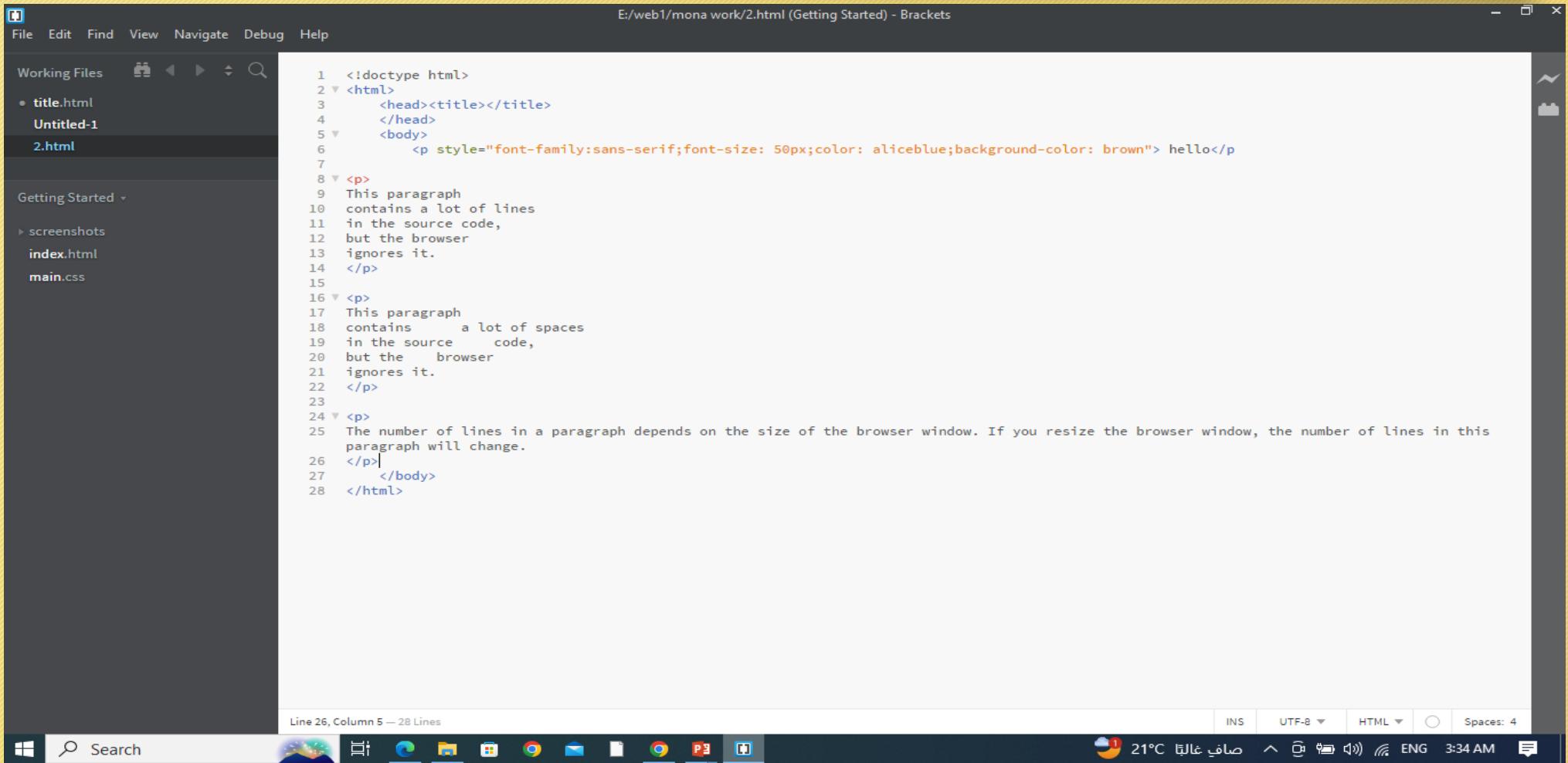
# The HTML Style Attribute

- `<tagname style="property:value;">`
- Tag name may be body,h1,paragragh
- Use the style attribute for styling HTML elements
- Use **background-color** for background color(shadow)
- Use **color** for text colors
- Use **font-family** for text fonts(type)
- Use **font-size** for text sizes
- Use **text-align** for text alignment

# example

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4
5  <p>I am normal</p>
6  <p style="color:red;">I am red</p>
7  <p style="color:blue;">I am blue</p>
8  <p style="font-size:50px;">I am big</p>
9
10 </body>
11 </html>
```

# Example



The screenshot shows the Brackets IDE interface with the following details:

- Title Bar:** E:/web1/mona work/2.html (Getting Started) - Brackets
- File Menu:** File Edit Find View Navigate Debug Help
- Working Files:** title.html, Untitled-1, 2.html
- Getting Started:** screenshots, index.html, main.css
- Code Editor:** The code for 2.html is displayed:

```
1  <!doctype html>
2  <html>
3      <head><title></title>
4      </head>
5  <body>
6      <p style="font-family:sans-serif;font-size: 50px;color: aliceblue;background-color: brown"> hello</p>
7
8  <p>
9      This paragraph
10     contains a lot of lines
11     in the source code,
12     but the browser
13     ignores it.
14 </p>
15
16 <p>
17     This paragraph
18     contains a lot of spaces
19     in the source code,
20     but the browser
21     ignores it.
22 </p>
23
24 <p>
25     The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this
26     paragraph will change.
27 </p>
28 </body>
29 </html>
```
- Status Bar:** Line 26, Column 5 — 28 Lines, INS, UTF-8, HTML, Spaces: 4
- System Tray:** Windows icon, Search icon, Task View icon, File Explorer icon, Chrome icon, Mail icon, Power icon, Battery icon, Cloud icon, 21°C, صافي غالباً ENG 3:34 AM, Notepad icon.

# Border

- syntax  
`border: [border-width] [border-style] [border-color];`
- **border-width:** Specifies the width of the border. Values can be in pixels (px) or keywords (thin, medium, thick).
- **border-style:** Defines the style of the border solid,dashed ,dotted
- **border-color:** Specifies the color of the border

# HTML colors&borders example

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4
5  <h1 style="background-color:Tomato;">Tomato</h1>
6  <h1 style="background-color:Orange;">Orange</h1>
7  <h1 style="background-color:DodgerBlue;">DodgerBlue</h1>
8  <h1 style="background-color:MediumSeaGreen;">MediumSeaGreen</h1>
9  <h1 style="background-color:Gray;">Gray</h1>
10 <h1 style="background-color:SlateBlue; border: thick dashed navy">SlateBlue</h1>
11 <h1 style="background-color:Violet; border:thin dotted yellow">Violet</h1>
12 <h1 style="background-color:LightGray; border: 2px solid black">LightGray</h1>
13
14 </body>
15 </html>
```

# Ex

**Tomato**

**Orange**

**DodgerBlue**

**MediumSeaGreen**

**Gray**

**SlateBlue**

**Violet**

**LightGray**

# What will be the output

```
1  <!doctype html>
2 ▼ <html>
3  <head><title> quiz1</title></head>
4 ▼ <body>
5  this is normal text
6      <p>this is normal paragraph</p>
7  this is normal text
8  this is normal text
9  this is normal text
10 this is normal text
11 this is normal text
12 this is normal text
13 <p>this is normal paragraph</p>
14 <p>this is normal paragraph</p>
15 
16     
17     
18     
19 </body>
20
21
22
23 </html>
```

# Output

```
this is normal text  
this is normal paragraph  
this is normal text  
this is normal paragraph  
this is normal paragraph
```



# block Level element & inline element

- A block-level element: always starts on a new line, and the browsers automatically add some space (a margin) before and after the element
- An inline element: does not start on a new line only takes up as much width as necessary.

# HTML Block and Inline Element

- Every HTML element has a default display value, depending on what type of element it is

## **Examples of each**

### **Block Elements**

`<div>`  
`<p>`  
`<h1>`  
`<ul>/<li>`

### **Inline Elements**

`<span>`  
`<a>`  
`<strong>`  
`<img>`

With CSS, you can switch these!  
(e.g. you can make divs inline or spans block)