



Web programming I

Section 1

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HTML comments

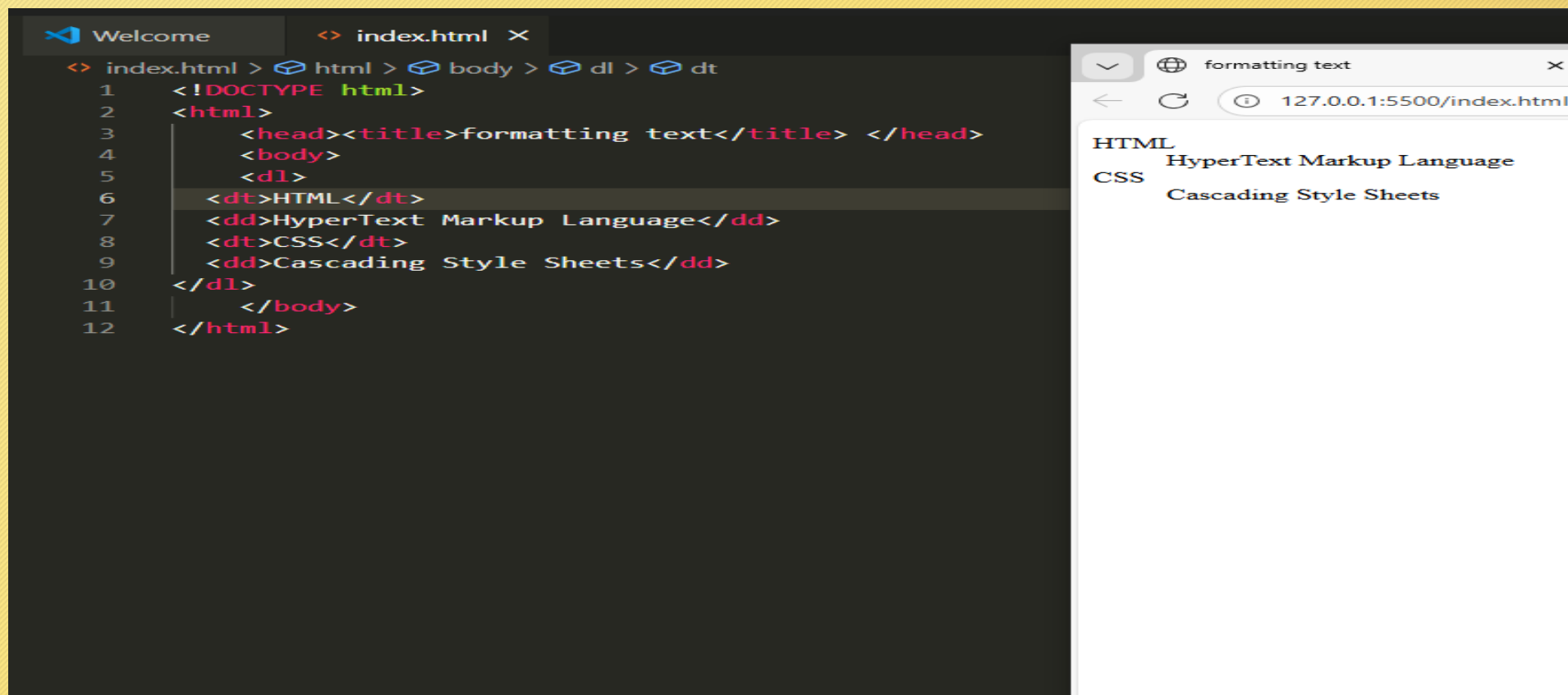
- Syntax : <!-- text comment-->
- With comments you can place notifications and reminders in your HTML code
- Comments can be used to hide content.
- You can also hide more than one line
- Comments can be used to hide parts in the middle of the HTML code.

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 code editor window on the left and a web browser window on the right. The code editor displays an HTML file named `index.html` with the following content:

```
1 <!DOCTYPE html>
2 <html>
3   <head><title>formatting text</title> </head>
4   <body>
5     <dl>
6       <dt>HTML</dt>
7       <dd>HyperText Markup Language</dd>
8       <dt>CSS</dt>
9       <dd>Cascading Style Sheets</dd>
10    </dl>
11  </body>
12 </html>
```

The web browser window shows the rendered output of the HTML document. The title bar indicates the page is titled "formatting text" and the address bar shows the URL "127.0.0.1:5500/index.html". The content of the page is:

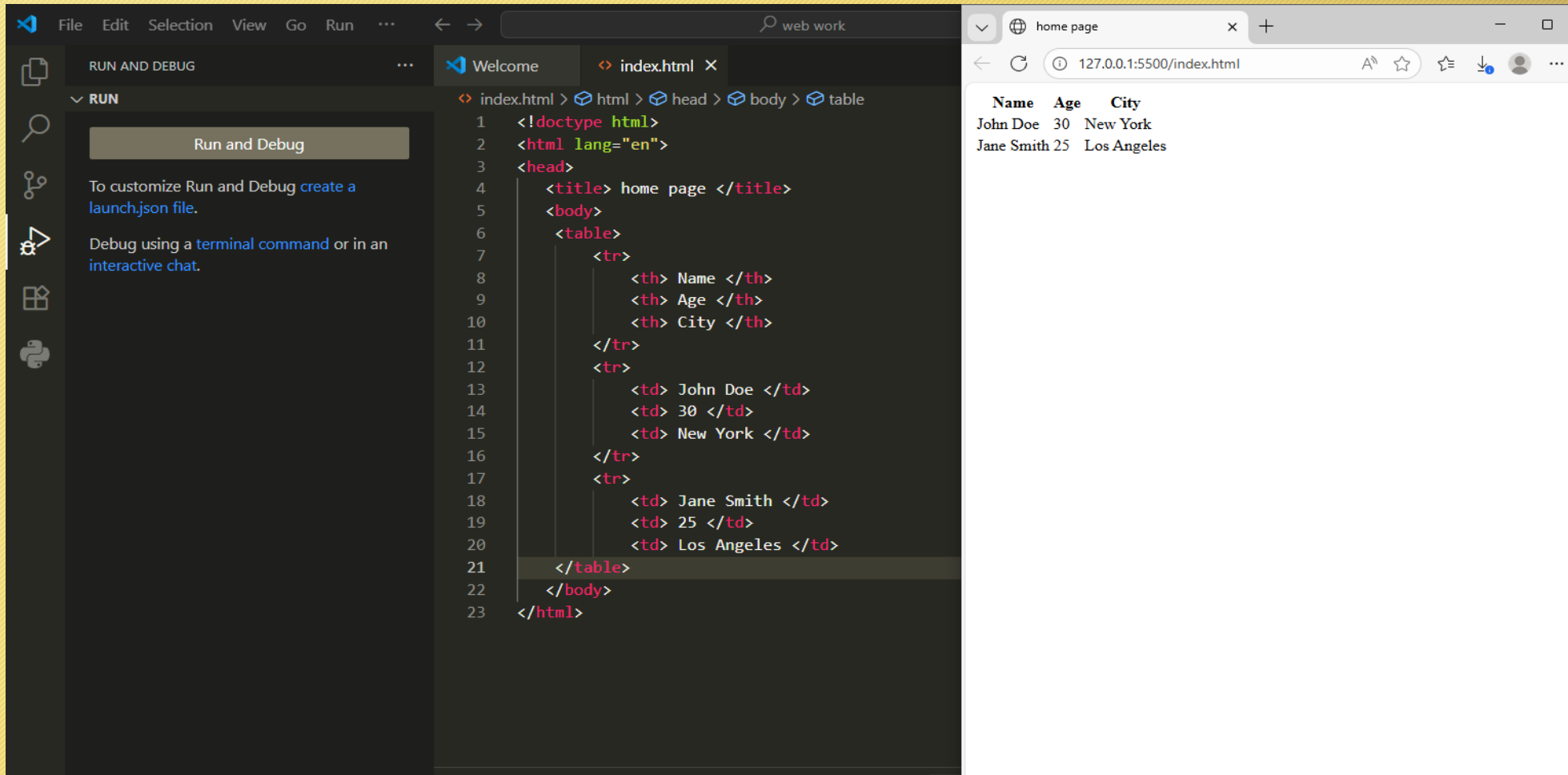
HTML
HyperText Markup Language

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 image shows a Visual Studio Code editor window with a dark theme. The left sidebar contains the 'RUN AND DEBUG' panel, which is currently empty. The main editor area displays an HTML file named 'index.html'. The code is as follows:

```
1 <!doctype html>
2 <html lang="en">
3 <head>
4   <title> home page </title>
5 <body>
6   <table>
7     <tr>
8       <th> Name </th>
9       <th> Age </th>
10      <th> City </th>
11    </tr>
12    <tr>
13      <td> John Doe </td>
14      <td> 30 </td>
15      <td> New York </td>
16    </tr>
17    <tr>
18      <td> Jane Smith </td>
19      <td> 25 </td>
20      <td> Los Angeles </td>
21    </tr>
22  </table>
23 </body>
</html>
```

To the right of the editor, a web browser window is open, displaying the rendered HTML page. The browser's address bar shows '127.0.0.1:5500/index.html'. The rendered page contains the following table:

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

The image shows a VS Code editor window with a file named `index.html`. The code defines an HTML document with a table. The table has three columns: Name, Age, and Country. It contains two data rows: one for Mona (Age 25, Country Egypt) and one for Ahmed (Age 30, Country Saudi Arabia). The table is styled with a peachpuff background color, a gray border, and a border width of 2 pixels. The browser preview on the right shows the rendered output of this code.

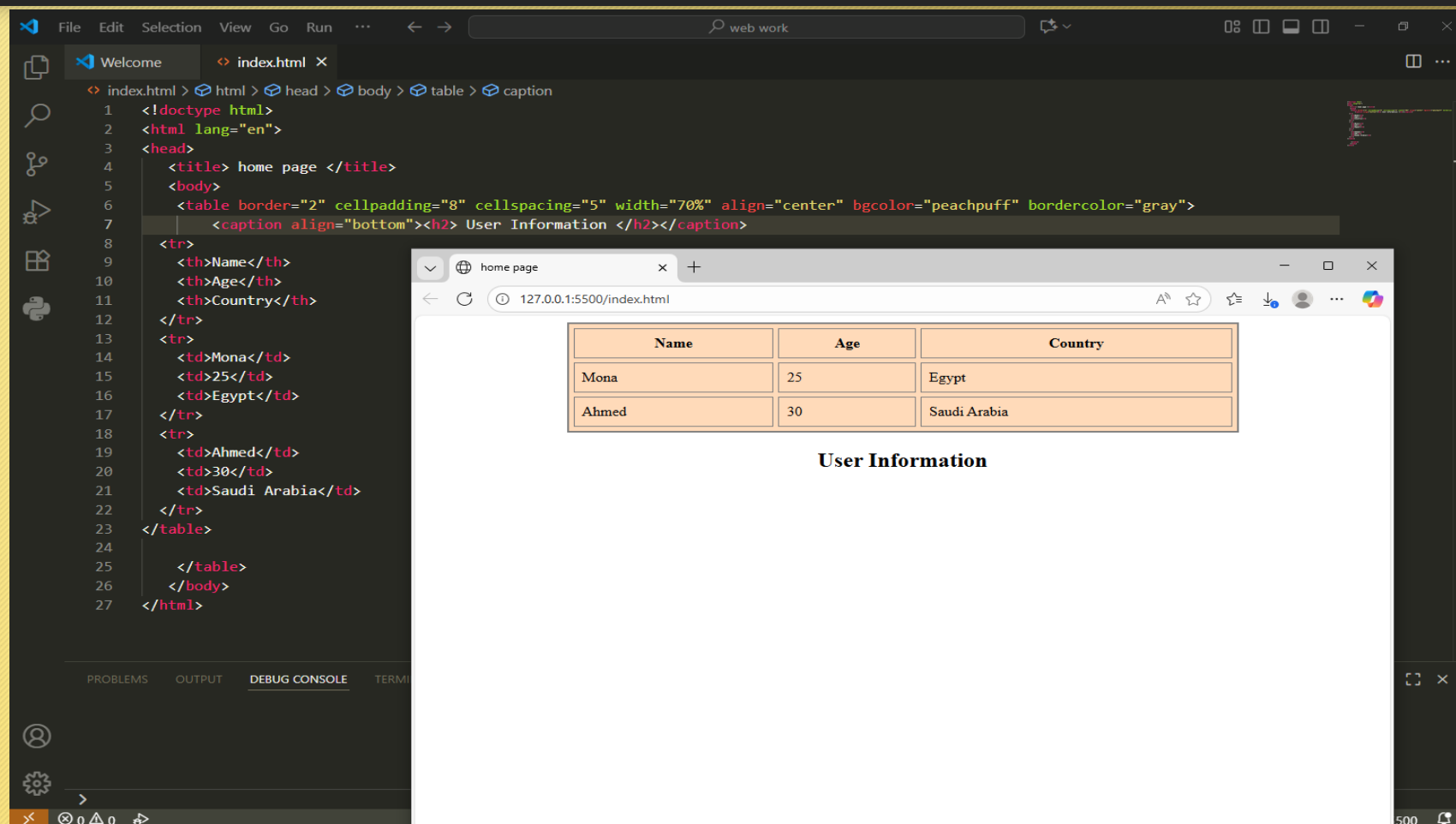
```
1 <!doctype html>
2 <html lang="en">
3 <head>
4   <title> home page </title>
5 </head>
6 <body>
7   <table border="2" cellpadding="8" cellspacing="5" width="70%" align="center" bgcolor="peachpuff" bordercolor="gray">
8     <tr>
9       <th>Name</th>
10      <th>Age</th>
11      <th>Country</th>
12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

Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

<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



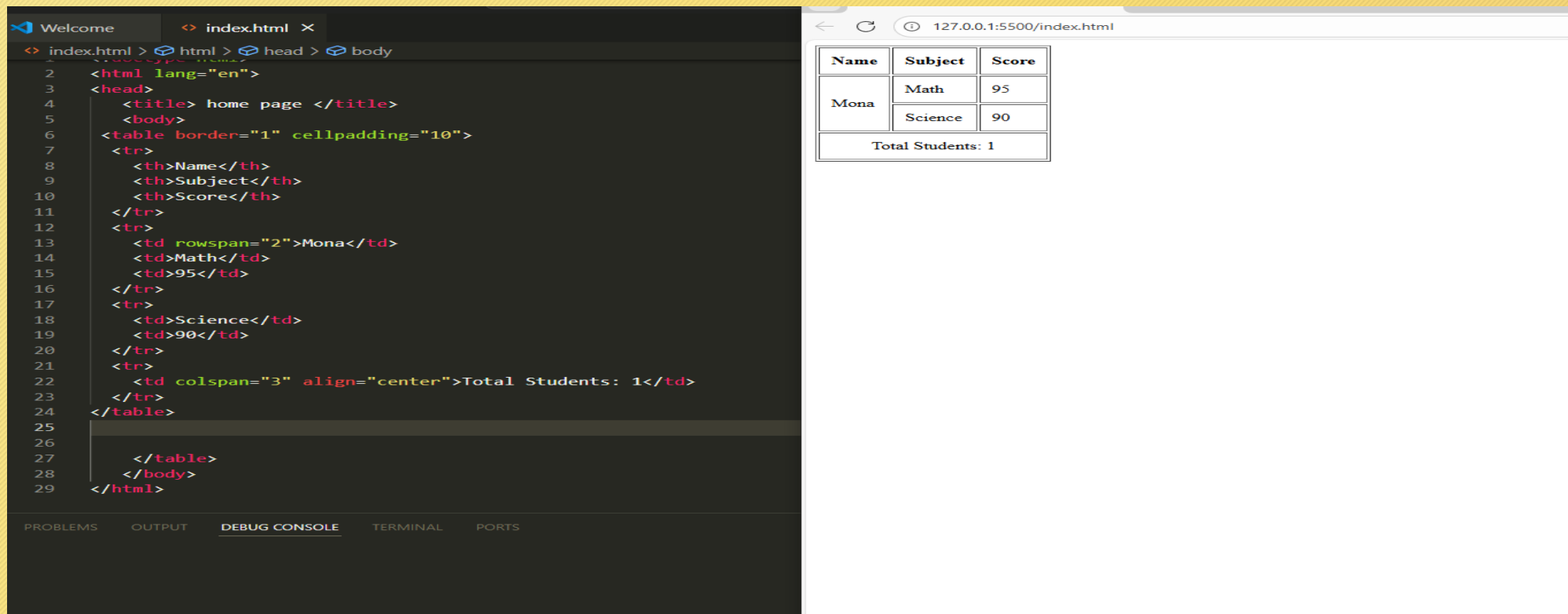
The image shows a Visual Studio Code editor window with a file named `index.html` open. The code is an HTML document with a table containing user information. The table has three columns: Name, Age, and Country. The data rows are:

Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

Below the table, the text "User Information" is displayed. The browser view shows the rendered output of the HTML code, displaying the table and the text "User Information".

Colspan&rowspan

- Colspan : merge cells horizontally Rowspan:merge cells vertically



The image shows a code editor on the left and a web browser on the right. The code editor displays the HTML code for a table with three columns: Name, Subject, and Score. The table uses `rowspan="2"` for the 'Mona' entry and `colspan="3"` for the 'Total Students: 1' row.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title> home page </title>
5 </head>
6 <body>
7   <table border="1" cellpadding="10">
8     <tr>
9       <th>Name</th>
10      <th>Subject</th>
11      <th>Score</th>
12    </tr>
13    <tr>
14      <td rowspan="2">Mona</td>
15      <td>Math</td>
16      <td>95</td>
17    </tr>
18    <tr>
19      <td>Science</td>
20      <td>90</td>
21    </tr>
22    <tr>
23      <td colspan="3" align="center">Total Students: 1</td>
24    </tr>
25  </table>
26
27 </table>
28 </body>
29 </html>
```

The web browser displays the rendered table:

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

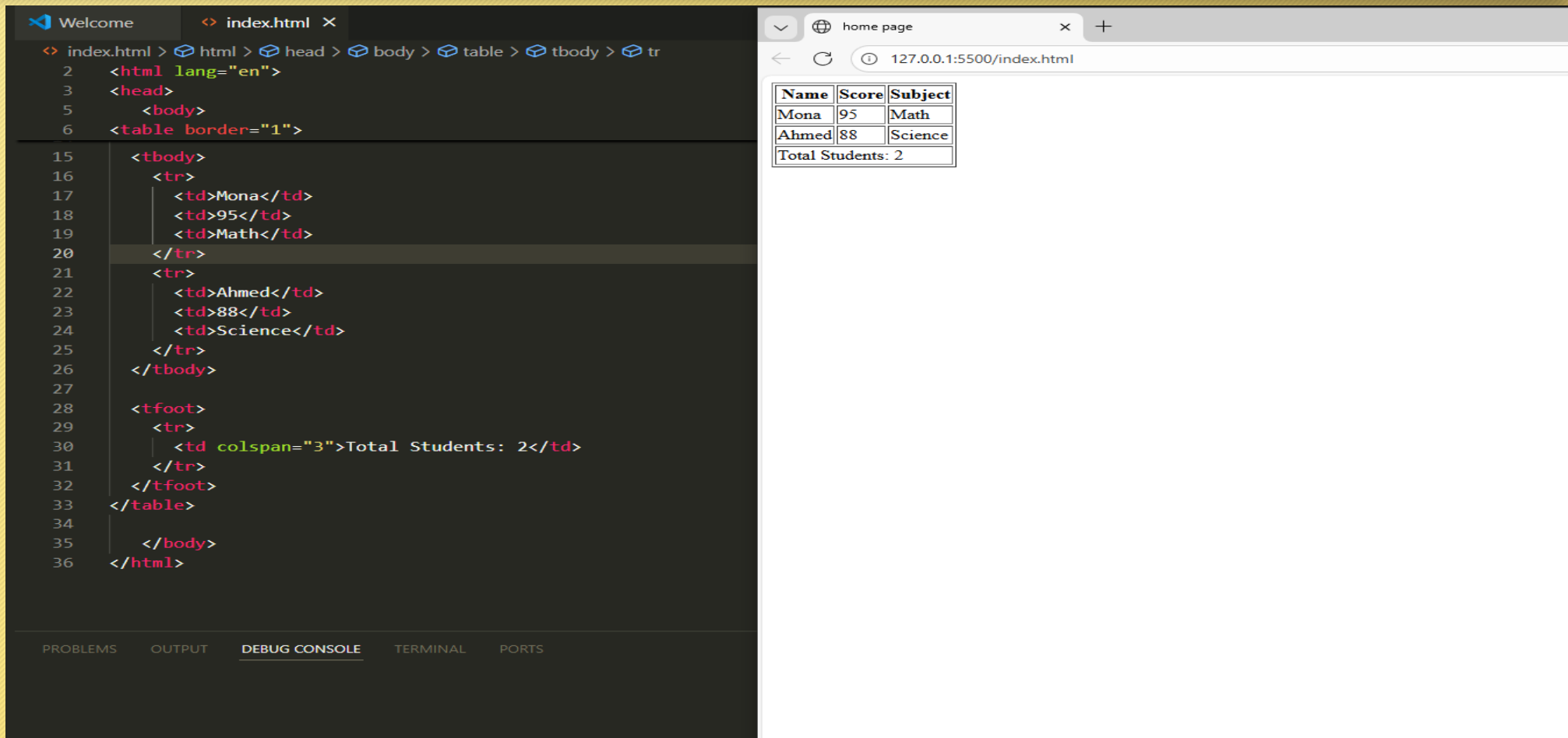
Table Structure

- `<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     </tr>
13   </thead>
14   <tbody>
15     <tr>
16       <td> toy </td>
17       <td> 200 </td>
18       <td> very good </td>
19     </tr>
20     <tr>
21       <td> mobile </td>
22       <td> 5000 </td>
23       <td> good </td>
24     </tr>
25   </ tbody >
26 </table>
27 </body>
28 </html>
```

example



The image shows a code editor on the left and a web browser on the right. The code editor displays the HTML code for an index.html file, which includes a table with student data. The web browser shows the rendered output of this code, displaying the table with two rows of student data and a total count.

```
<?xml version="1.0" encoding="UTF-8" ?>
<html lang="en">
  <head>
    <body>
      <table border="1">

        <tbody>
          <tr>
            <td>Mona</td>
            <td>95</td>
            <td>Math</td>
          </tr>
          <tr>
            <td>Ahmed</td>
            <td>88</td>
            <td>Science</td>
          </tr>
        </tbody>

        <tfoot>
          <tr>
            <td colspan="3">Total Students: 2</td>
          </tr>
        </tfoot>
      </table>
    </body>
  </html>
```

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>
```

```
<!--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

- ` text`: 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.
- : Emphasizes text, typically rendered in italics. It implies that the text carries special importance or requires emphasis.
- : 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.
- : 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
- `` Defines deleted text
- `<ins>` Specifies inserted text text new text after deleted text
- `<mark>` defines the marked or highlighted text

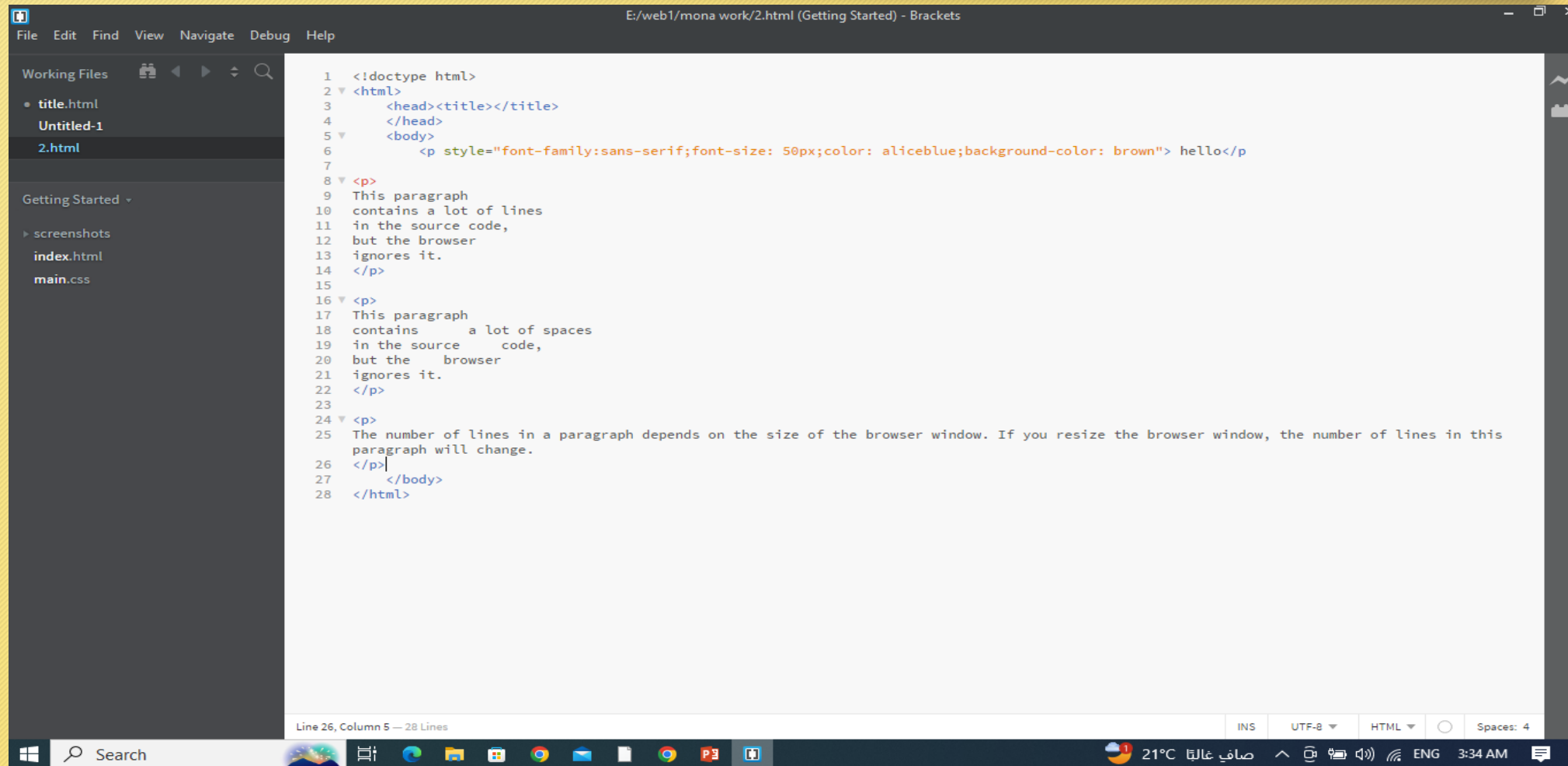
The HTML Style Attribute

- `<tagname style="property:value;">`
- Tag name may be body,h1,paragrah
- 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



```
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>
</html>
```

Line 26, Column 5 — 28 Lines

INS UTF-8 HTML Spaces: 4

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 text this is normal text this is normal text 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>`
`/`

Inline Elements

``
`<a>`
``
``

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