Web programming I

Section 1
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HTML comments
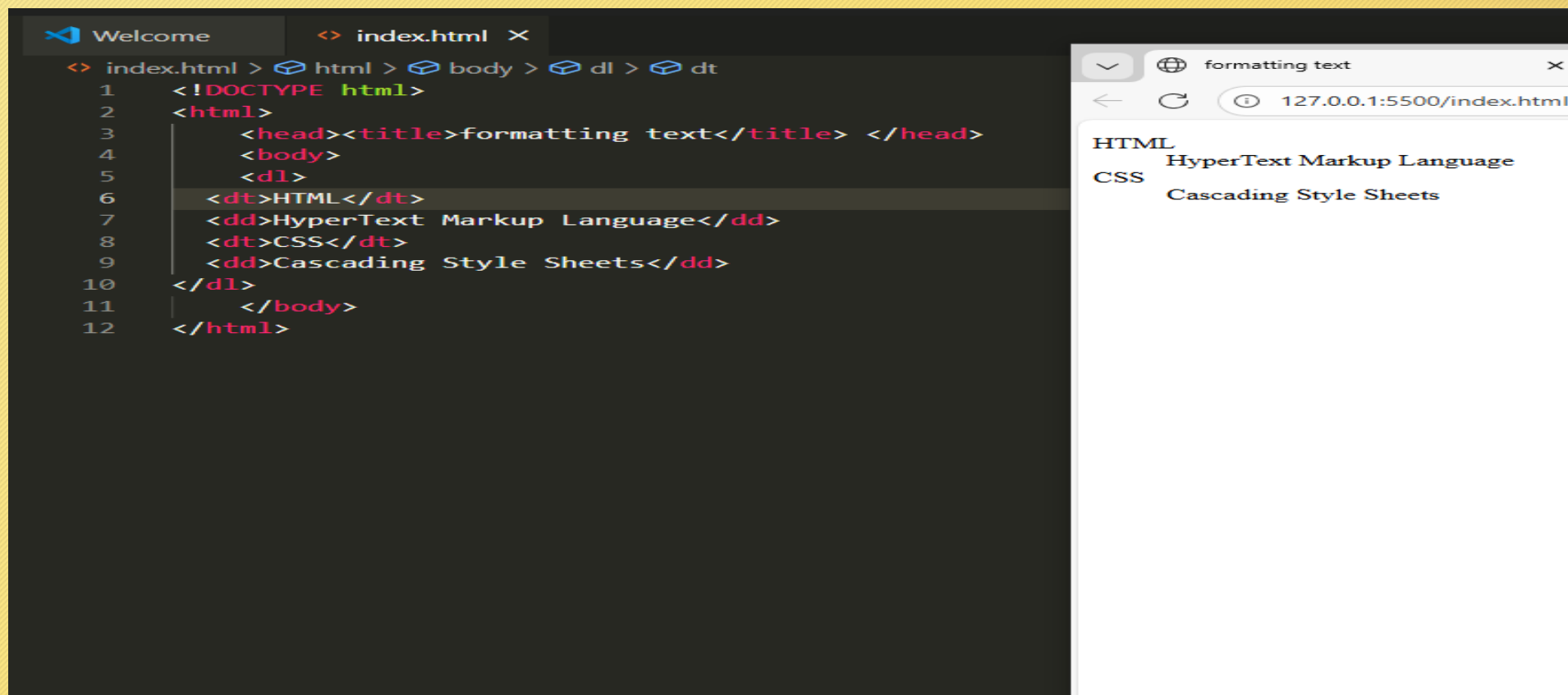
- Syntax : <!- - text comment- ->
- With comments you can place notifications and reminders in your HTML code
- Comments can be used to hide content.
- You can also hide more than one line
- Comments can be used to hide parts in the middle of the HTML code.

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
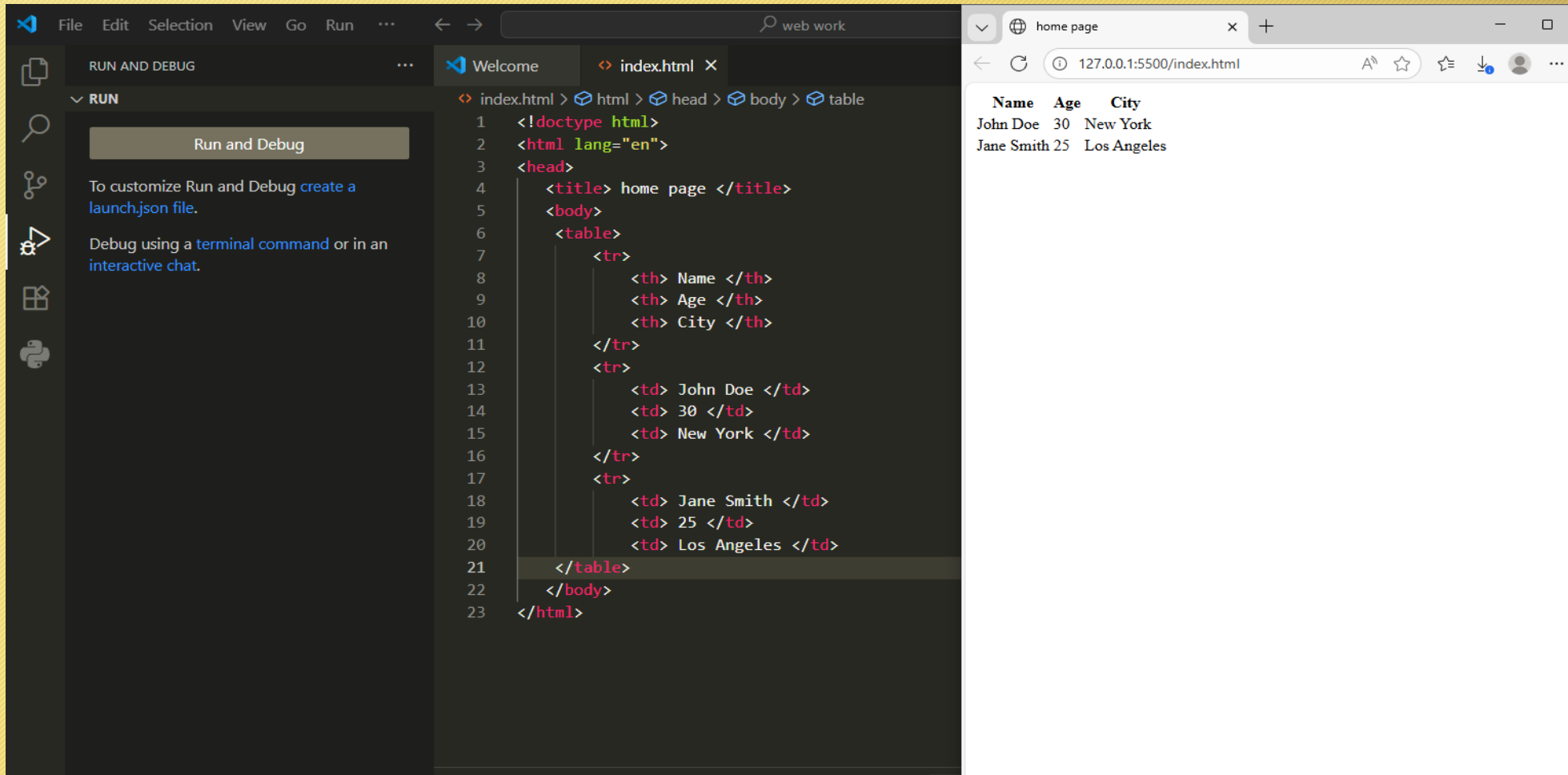
HTML Tables

- Atable 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

File   Edit   Selection   View   Go   Run   ···   ←   →   🔍 web work

RUN AND DEBUG   ···

∨ RUN

Run and Debug

To customize Run and Debug create a launch.json file.

Debug using a terminal command or in an interactive chat.

Welcome   ◇ index.html ✕

◇ index.html ⟩ ⊘ html ⟩ ⊘ head ⟩ ⊘ body ⟩ ⊘ table

```html
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        </table>
22      </body>
23  </html>
```

home page   ✕   +   —   ☐   ···

←   →   ⟳   ⓘ   127.0.0.1:5500/index.html

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

```
Welcome          <> index.html  ✕

<> index.html > ⬡ html > ⬡ head > ⬡ body > ⬡ table
  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        </table>
 25      </body>
 26    </html>
```
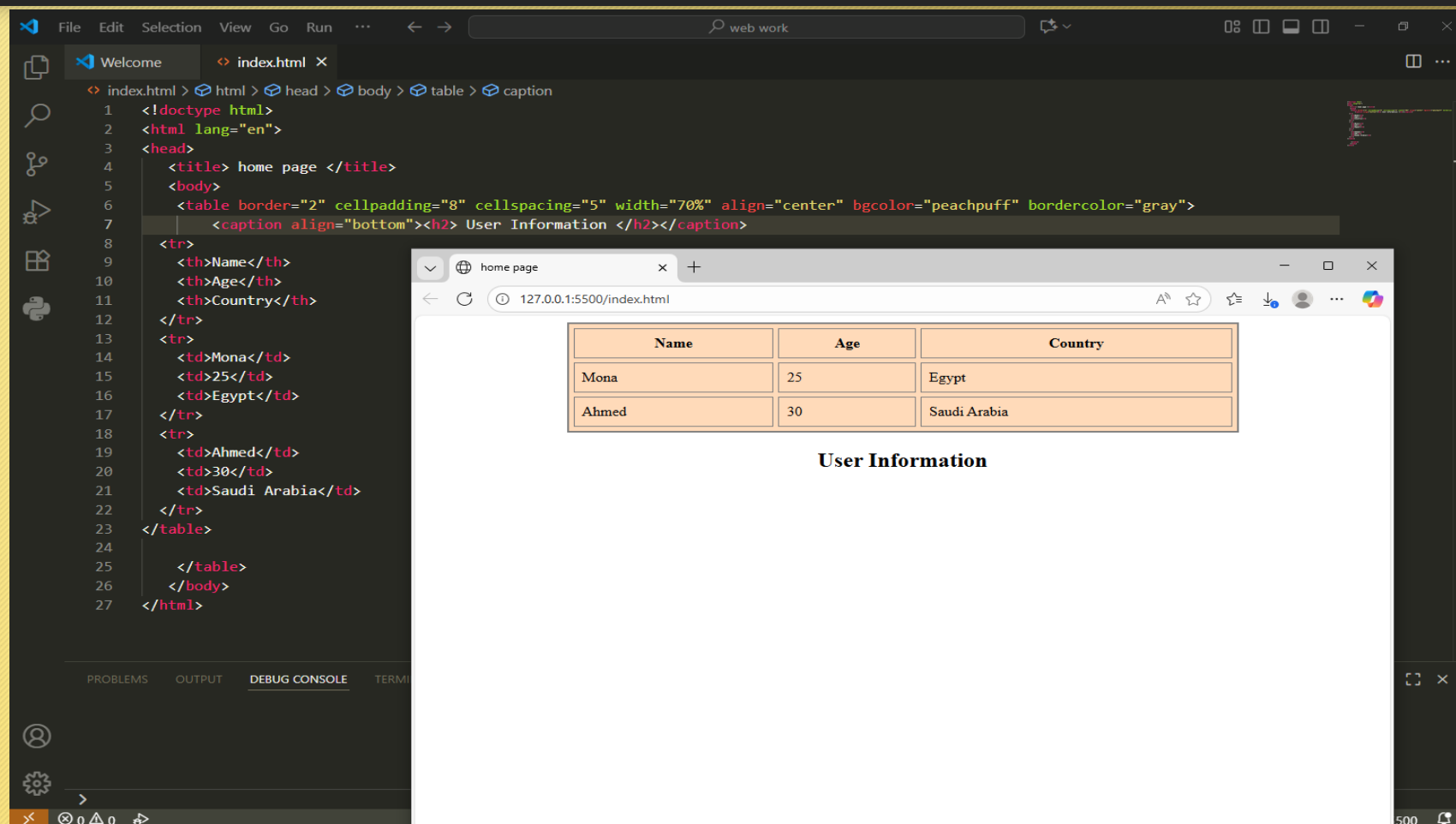
Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

<caption> tag

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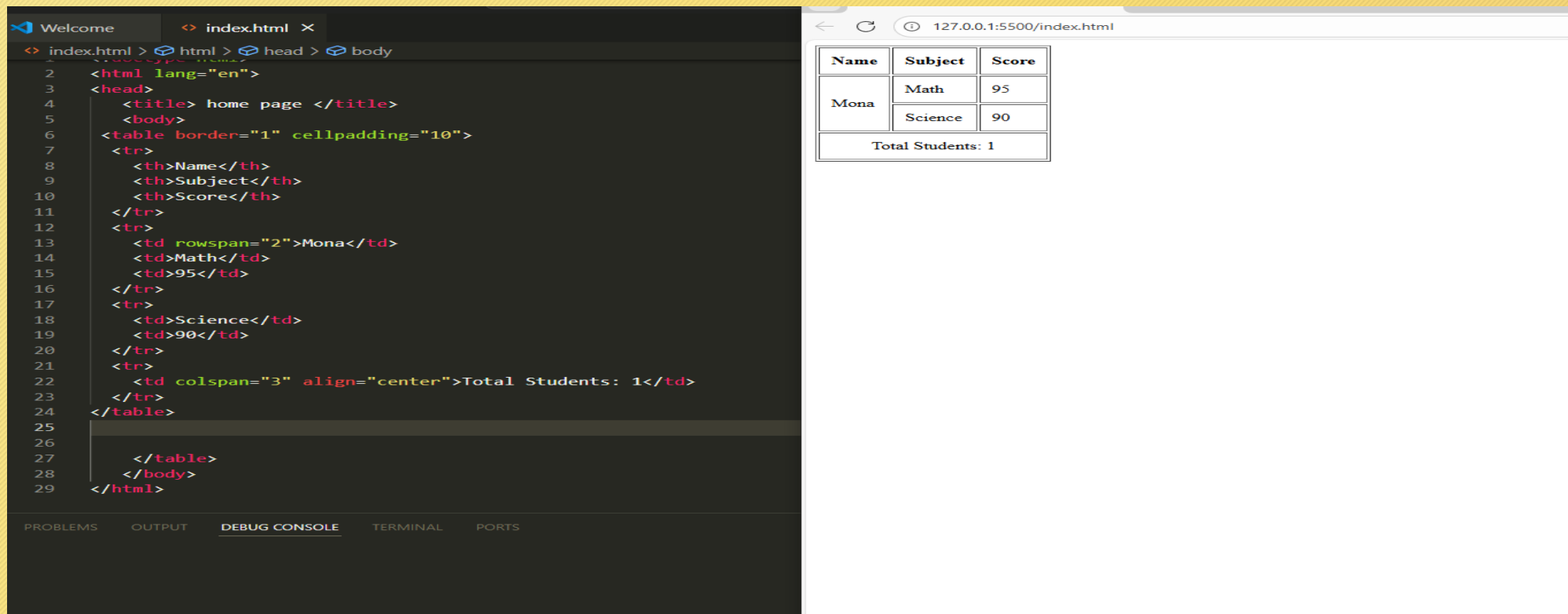I.   Top default
II. Bottom
III. Right
IV. Left

Ex

```html
<!doctype html>
<html lang="en">
<head>
    <title> home page </title>
    <body>
    <table border="2" cellpadding="8" cellspacing="5" width="70%" align="center" bgcolor="peachpuff" bordercolor="gray">
        <caption align="bottom"><h2> User Information </h2></caption>
    <tr>
        <th>Name</th>
        <th>Age</th>
        <th>Country</th>
    </tr>
    <tr>
        <td>Mona</td>
        <td>25</td>
        <td>Egypt</td>
    </tr>
    <tr>
        <td>Ahmed</td>
        <td>30</td>
        <td>Saudi Arabia</td>
    </tr>
</table>

    </table>
    </body>
</html>
```

Browser output — home page (127.0.0.1:5500/index.html):

Name	Age	Country
Mona	25	Egypt
Ahmed	30	Saudi Arabia

User Information

Colspan&rowspan

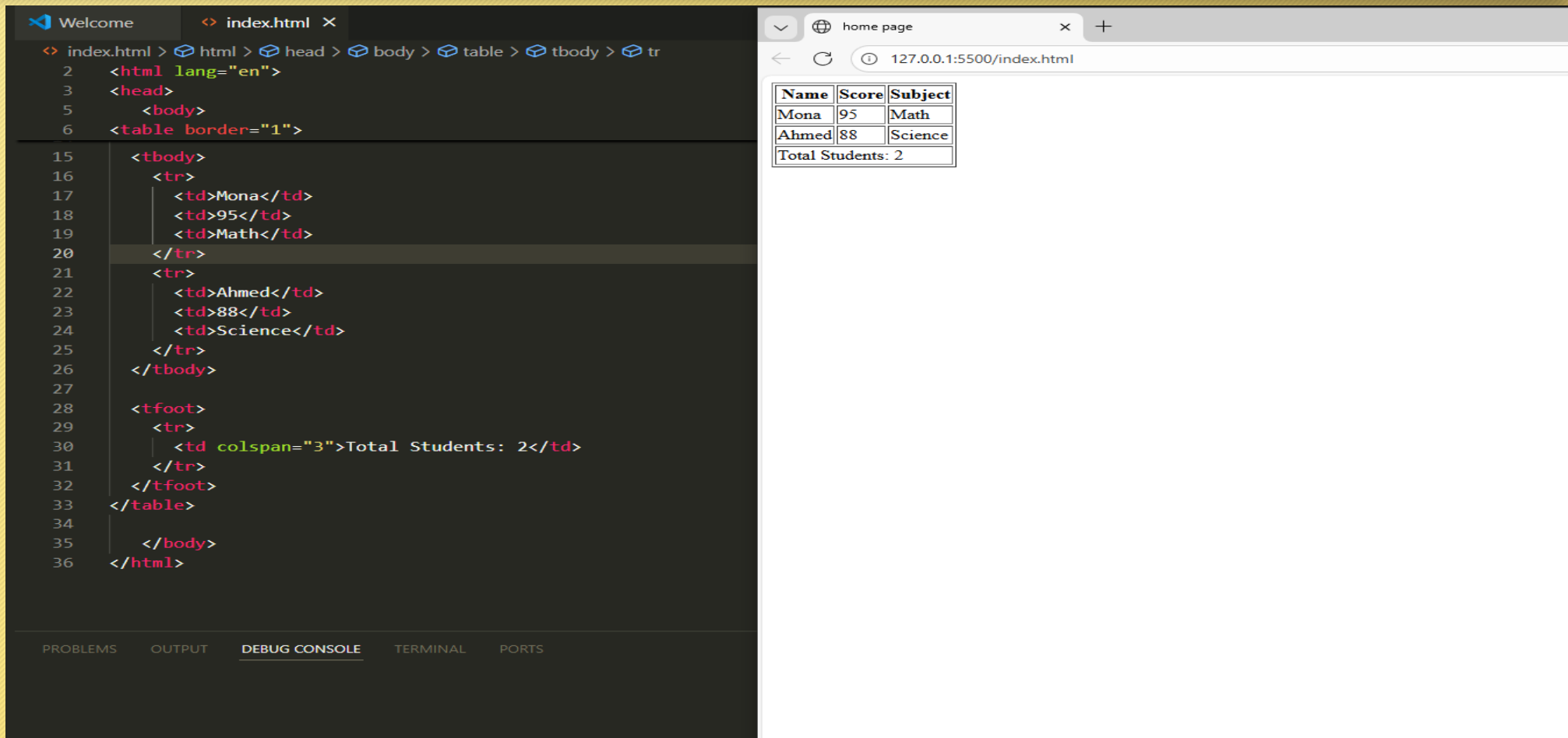- Colspan : merge cells horizontally Rowspan:merge cells vertically

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

Example of using table to design the page

```html
<!DOCTYPE html>
<html>

<head> <title>home</title></head>

<body>

    <table border="1" bgcolor="silver" align="center" width="100%" >
        <!-banner-->

        <tr>

 <td height="150" > <img src="book.jpg" width="100%" 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>
```

```html
</tr>
<!-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.

- <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
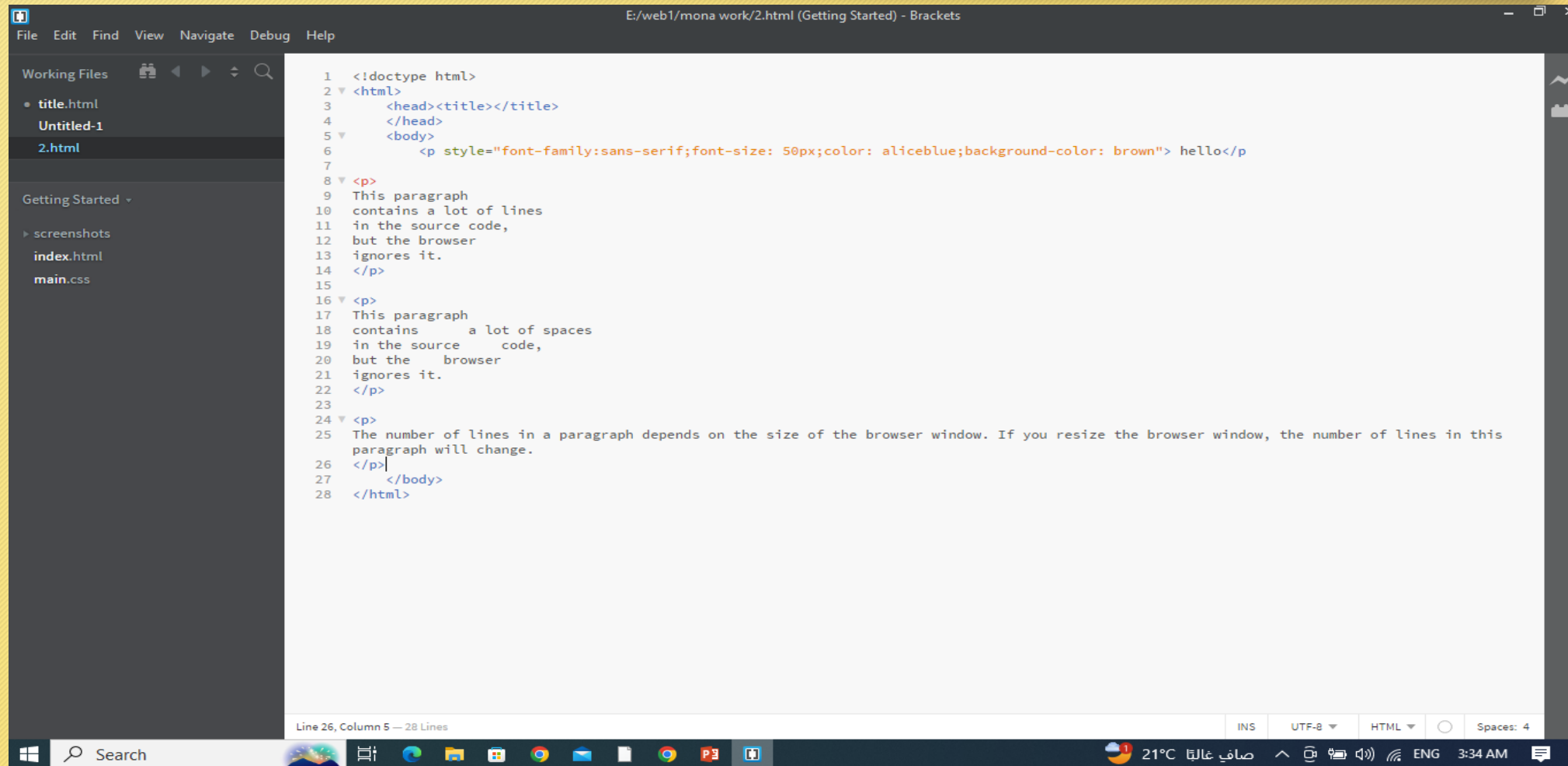
The HTML Style Attribute

- *<tagname* style="*property:value;*">*
- Tag name may be body,h1,paragragh
- <u>Use the style attribute for styling HTML elements</u>
- 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

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      <img src="images.png">
16        <img src="images.png">
17        <img src="images.png">
18        <img src="images.png">
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 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	Inline Elements
`<div>`	`<span>`
`<p>`	`<a>`
`<h1>`	`<strong>`
`<ul>/<li>`	`<img>`

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