

### Information Technology Department - State Polytechnic of Malang

### Jobsheet-1: Web Server Installation and Basic HTML

**Course: Web Programming / Web Design and Programming** 

Instructor: Web Design and Programming Teaching Team

August 2024

### **Topic**

- Introduction to Basic Concepts of the Internet and Web

- Laragon Installation

- Introduction to HTML Fundamentals

Name: Evan Diantha Fafian

Class: SIB 2G Absent: 09

NIM : 2341760163

### **Objectives**

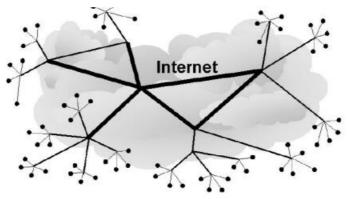
Students are expected to:

- 1. Understand the basic concepts of the Internet and the web
- 2. Install Laragon as web server
- 3. Be able to create static websites using HTML

### Introduction

#### What is the Internet?

- A large network of computers.
- Network of networks
- Operates based on the TCP/IP protocol



Picture 1. Internet Network

### What are the services provided by the Internet?

- World Wide Web (WWW): operates with the HTTP protocol
- E-mail: operates with *Post Office Protocol* (POP), *Simple Mail Transfer Protocol* (SMTP), *Internet Message Access Protocol* (IMAP)
- Chat: *Internet Relay Chat* (IRC)
- File Transfer: File Transfer Protocol (FTP)
- Remote Access: telnet, Shell Secure (SSH)
- VoIP (Voice over Internet Protocol)
- etc

#### **Website and Web Applications**

• Website (WWW)

A website is a collection of interlinked web pages that can be accessed through a homepage using a browser.

For example, when accessing the website at www.polinema.ac.id, the homepage will appear as follows.



Picture 2. Homepage

Meanwhile, a web page is a part of the homepage that appears as a menu or link where, when clicked, will open a new page with information different from the homepage.

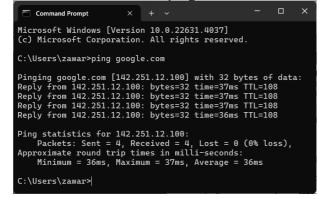
• Static Web Statis vs Dynamic Web

**Static Web** is a website where users cannot directly change the content of the web using a browser. The interaction between the user and the server is limited to processing links. These web pages do not have a database. The data and information on a static website do not change unless its syntax is altered. The web document sent to the client will be the same as what is on the web server.

**Dynamic Web** is a website where the interaction between the user and the server is very complex. A person can change the content of certain pages using a browser. Requests from users can be processed by the server and then displayed with different contents according to its program flow. These web pages are connected to a database, so a dynamic website will have different information and data depending on the input provided by the client. The document received by the client will be different from the document on the server.

#### How does a website work?

- 1. When user enters the URL in the browser https://www.google.com
- 2. The browser will translate the URL into an IP address and connect to the server via TCP on port 80 (HTTP service).
  - In this case, we use the 'ping' command in CMD as an example.

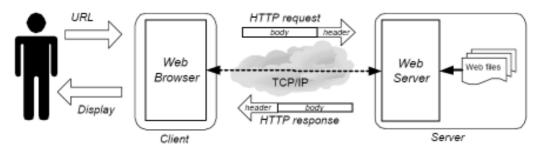


- 3. Through the established connection, the browser sends a GET request (HTTP request)
  - GET/HTTP/1.1
- 4. The server responds with an HTTP response (including the header and the requested file in the body). The MIME type is also included to inform the browser about the file type (HTML, text, image, etc.)

```
Content-type: text/html
<html>
<head><title> Google </title></head>
<body>Welcome to google <img src='logo.gif'></body>
</html>
```

Picture 3. MIME Type

- 5. Files within the webpage, such as images, are not sent with the main file, so the browser must make additional requests to retrieve all the files on the webpage..
  - GET /logo.gif HTTP/1.0
- 6. The browser will render the content to be displayed to the user in the browser...
- 7. HTTP connections do not remain continuous; once a file is downloaded, the connection is terminated.

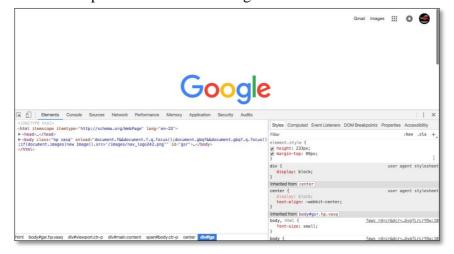


Picture 4. HTTP Request and Response

### Hypertext Markup Language (HTML)

HyperText Markup Language (HTML) is a language used to create web pages, where formatting is done using simple hypertext written in ASCII format to produce an integrated visual display. HTML is an internet standard defined and regulated by the World Wide Web Consortium (W3C). HTML was created through a collaboration between Tim Berners-Lee and Robert Cailliau while they were working at CERN in 1989 (CERN is a high-energy physics research organization in Geneva).

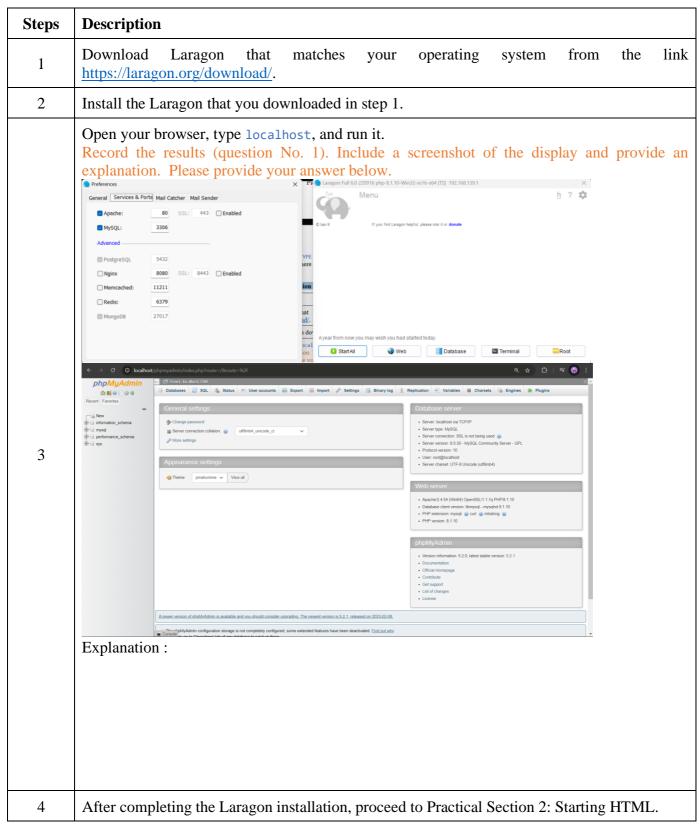
HTML can be read on various platforms and is a flexible programming language that can be combined with other programming languages such as PHP, ASP, JSP, and JavaScript. Certain tags in HTML documents define how text is formatted, and there are also other tags that specify how to respond to user actions. For example, open the page <a href="www.google.com">www.google.com</a>, right-click in the browser (Chrome), and select "inspect," which will display the browser's developer tools as shown in Figure 5.



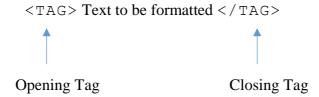
Picture 5. Inspect Element

In the first line, there is the text <!DOCTYPE HTML>, which indicates that the document you are viewing is an HTML document. On the second line, there is also the <HTML> tag, which further signifies that the code written within it is HTML code.

## **Practical Section 1. Laragon Installation**



HTML is the standard format used to create web page documents. An HTML document has paired syntax called TAGs that are used to apply the desired effects. Generally, the format of a TAG is as follows:



### **Basic Structure of an HTML Page**

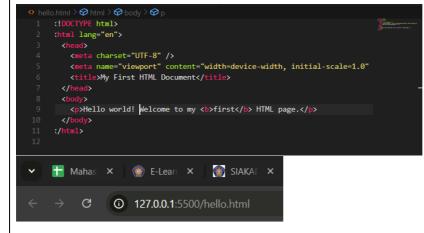
Every HTML document must start with the <html> tag and end with its complement, the </html> tag. An HTML document also includes three pairs of tags:

- <head> and </head>: Used to declare information about the HTML document.
- <title> and </title>: Used to add the title in the browser's title bar.
- <body> and </body>: Used to enclose all the text on the HTML page.

### In HTML5, the structure is more concise, as shown below:

# **Practical Section 2: Starting HTML**

Steps	Description	
1	Open the Laragon folder in the directory where you installed Laragon. Navigate to the directory C:\laragon\www, and then create a new folder named dasarWeb.	
2	Next, open your text editor, create a new file named hello.html, and save it in the dasarWeb directory that you just created.	
	<pre>     hello.html x</pre>	
3	Open your browser and type the following address: localhost/dasarWeb/hello.html.	
4	Observe what appears in the browser.	
5	<pre>chtml lang="en"&gt;</pre>	
	<ul> <li>Explanation:</li> <li>- `<html>`: Used to define the entire HTML document.</html></li> <li>- `<head>`: Contains meta information about the document, such as the title, links to CSS files, and more.</head></li> <li>- `<title>`: Used inside the `&lt;head&gt;` element to specify the title of the web page that will be displayed on the browser tab. It is important to remember that in a single HTML document, only one `&lt;title&gt;` tag will be accepted.&lt;/li&gt; &lt;li&gt;- `&lt;body&gt;`: This is the main part of the webpage, which contains all the content that you want to show to the audience.&lt;/li&gt; &lt;li&gt;- `` : Function for text paragraphs.&lt;/li&gt; &lt;li&gt;- `&lt;br/&gt; - `&lt;br/&gt; - `&lt;br/&gt; - `Used to create line breaks in text.&lt;/li&gt; &lt;/ul&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;6&lt;/td&gt;&lt;td&gt;Remove the &lt;br/&gt; tag from the code, observe the difference, and describe below what the function of the &lt;br/&gt; tag is. (question No. 3) Write your answer below.&lt;/td&gt;&lt;/tr&gt;&lt;/tbody&gt;&lt;/table&gt;</title></li></ul>	



Hello world! Welcome to my first HTML page.

### Explanation:

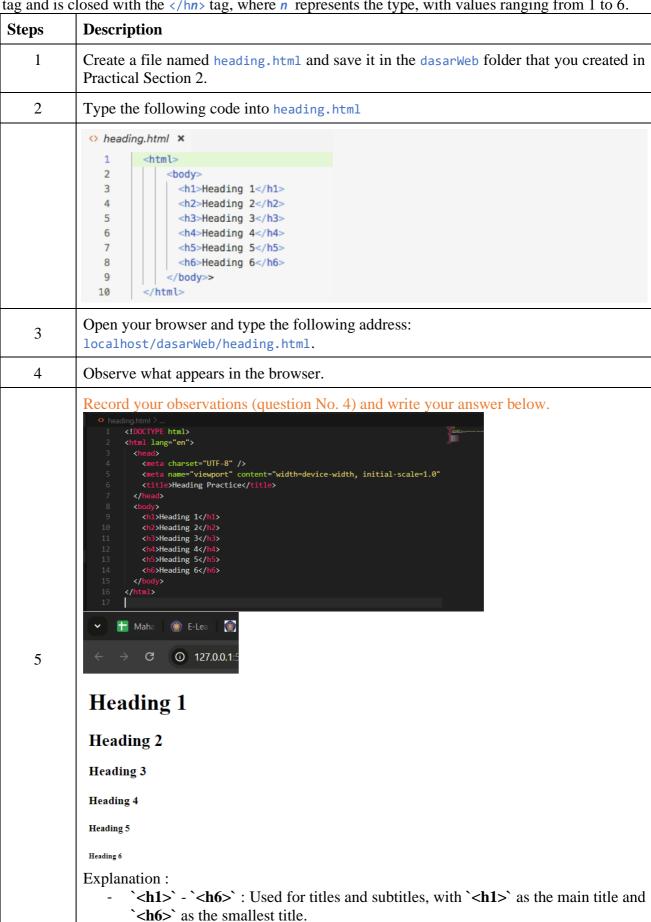
- The line break between 'Hello world!' and 'Welcome to my first HTML page' will disappear and will become a single line. This is because the `**<br/>br>**` tag function which has the function of giving line breaks is removed.

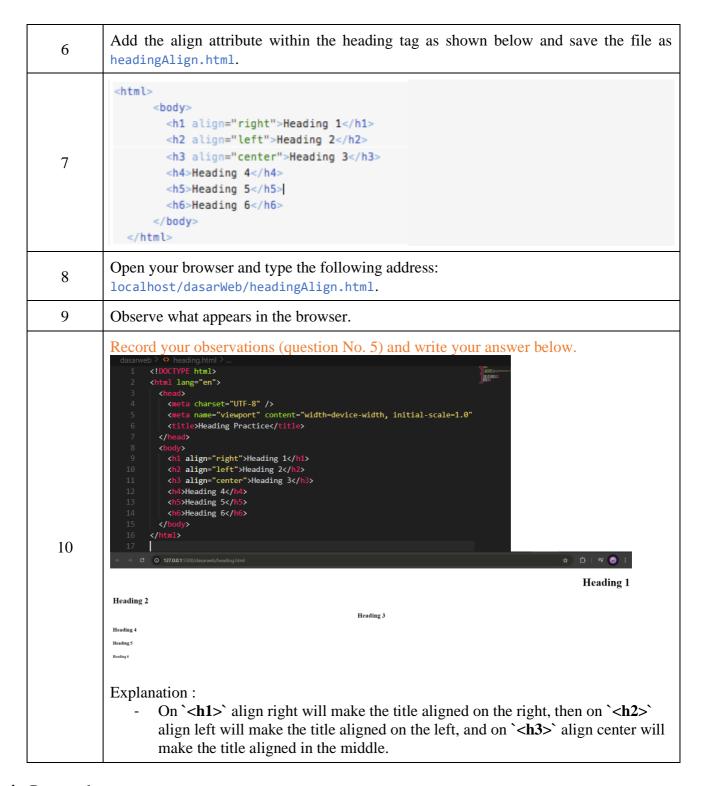
### **Practical Section 3: Text Formatting**

HTML provides a variety of elements that can be used for text formatting.

### Heading

A heading is one of the essential elements in an HTML document. A heading is defined using the  $\langle hn \rangle$  tag and is closed with the  $\langle hn \rangle$  tag, where n represents the type, with values ranging from 1 to 6.





### Paragraph

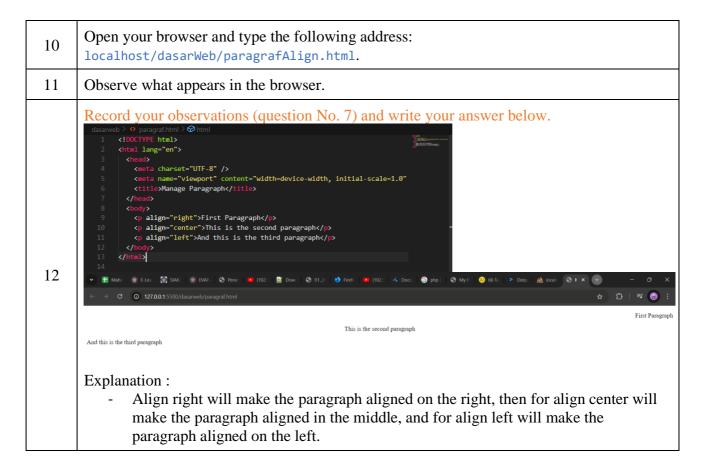
Like regular text, an HTML document can consist of a collection of paragraphs. In the context of HTML, a paragraph is represented by the tag. The tag is actually a paired tag, although in practice, the closing tag is often omitted.

Step s	Description
1	Buat sebuah file bernama paragraf.html dan simpan file tersebut di dalam folder dasarWeb yang telah dibuat pada Praktikum 2.
2	Ketikkan kode di bawah ini dalam paragraf.html
3	html

```
<html lang="en">
       <body>
         >
          First paragraph
         >
          This is the second paragraph
          And this is the third paragraph
         </body>
     </html>
     Open your browser and type the following address:
4
     localhost/dasarWeb/paragraf.html.
5
     Observe what appears in the browser.
     Record your observations (question No. 6) and write your answer below.
          First paragraph
            This is second paragraph
And this is the third paragraph
6
         tt Mal @ E-L∈ @ SIAI @ EVA

    localhost/dasarweb/parag

     First paragraph
     This is second paragraph
     And this is the third paragraph
     Explanation:
            Every time we add a `` tag it will add a new paragraph
7
     To adjust the paragraph alignment, use the align attribute within the paragraph tag.
     Add the align attribute in the paragraph tag as shown below and save the file as
8
     paragrafAlign.html.
     <!DOCTYPE html>
     <html lang="en">
       <head>
         <title>
          Manage Paragraph
         </title>
       </head>
       <body>
          9
            First Paragraph
           This is the second paragraph
           And this is the third paragraph
           </body>
     </html>
```



#### Font

HTML provides several elements that can be used to manage fonts, such as **bold**, *italic*, <u>underline</u>, and many more. Additionally, this section will explain how to print tags. As you may know, the tag in a document is automatically interpreted as a paragraph. However, to display the character on the screen, we need to use entity names.

For example, the < character is represented by the entity name &1t, and the > character is represented by &gt.

# **Practical Section 4 : Font**

Steps	Description
1	Create a file named font.html and save it in the dasarWeb folder that you created in Practical Section 2.
2	Type the following code into font.html:
3	<pre>font.html x  1</pre>
4	Open your browser and type the following address: localhost/dasarWeb/font.html.
5	Observe what appears in the browser.
6	Record your observations (question No. 8) and write your answer below.    Comment

# Special Characters

In HTML, we can also display special characters by using entity names. The table below shows some types of special characters that can be used along with their entity names.

Character	Description	Special Characters
¢	Cent	¢
£	Pound	£
¥	Yen	¥
€	Euro	€
©	Copyright	©
R	Registered	®
TM	Trademark	™

# **Practical Section 5: Special Characters**

Steps	Description
1	Create a file named karakter.html and save it in the dasarWeb folder that you created in Practical Section 2.
2	Type the following code into karakter.html:
3	<pre>     karakter.html x  1</pre>
4	Open your browser and type the following address: localhost/dasarWeb/karakter.html.
5	Observe what appears in the browser.
	Record your observations (question No. 9) and write your answer below.    paragraf.html     karakter.html     body   body   body   colory
6	£ Pound € Euro © Copyright ® Registered ™ Trademark  Explanation:  - entity & pound will give the pound character - entity & euro will give the euro character - entity & copy will give the copyright character - entity & reg will give the registered character - entity & trade will give the trademark character

# **Practical Section 6: Horizontal Line**

In HTML, a horizontal line is represented by the <hr>> tag. Although most browsers render this element with slightly different visualizations, it essentially represents a horizontal line.

Steps	Description
1	Buat sebuah file bernama garishorizontal.html dan simpan file tersebut di dalam folder dasarWeb yang telah dibuat pada Praktikum 2.
2	Ketikkan kode di bawah ini dalam garishorizontal.html
3	<pre>(IDOCTYPE html&gt;</pre>
4	Open your browser and type the following address: localhost/dasarWeb/garishorizontal.html.
5	Observe what appears in the browser.
6	Record your observations (question No. 10) and write your answer below.

```
garishorizontal.html >
               <!DOCTYPE html>
<html lang="en">
<head>
                     head>

kead>
<meta charset="UTF-8" />
<meta name="viewport" cor
</pre>

Create Horizontal
                  UNDANG-UNDANG DASAR NEGARA REPUBLIK INDONESIA TAHUN 1945
                       PEMBUKAAN <br />
                       Bahwa sesungguhnya kemerdekaan itu ialah hak segala bangsa dan oleh se
                       maka penjajahan di atas dunia harus dihapuskan, karena tidak sesuai de
                       peri-kemanusiaan dan peri-keadilan.
                       Dan perjuangan pergerakan kemerdekaan Indonesia <br/>der /> telah sampailah kepada saat yang membahagiakan dengan selamat sentausa
                       mengantarkan rakyat Indonesia ke depan pintu gerbang kemerdekaan Negar
                       Indonesia <br/> />
yang merdeka, bersatu, berdaulat, adil dan makmur.<br/>
<hr />
                       Atas berkat rakhmat Allah yang maha kuasa dan dengan didorongkan oleh
                      keinginan luhur <br/>br />
supaya berkehidupan kebangsaan yang bebas, <br/>br />
maka rakyat Indonesai menyatakan dengan ini kemerdekaannya.
                      Kemudian dari pada itu <br />
untuk membentuk suatu Pemerintah Negara Indonesia <br />
/>
                       yang melindungi segenap bangsa Indonesia dan seluruh tumpah darah Indo
                      dan untuk memajukan kesejahteraan umum, mencerdaskan kehidupan bangsa
dan ikut melaksanakan ketertiban dunia yang berdasarkan kemerdekaan,
perdamaian abadi dan keadilan sosial, <br/>br />
maka disusunlah Kemerdekaan Kebangsaan Indonesia itu dalam suatu susur
                      maka uisusunian kemeruekaan kebangsaan indonesia itu dale
Negara Republik Indonesia, <br/>br /> yang berkedaulatan rakyat dengan berdasar kepada: <br/>br /> Ketuhanan Yang Maha Esa, <br/>br />
                      Kemanusiaan yang adil dan beradab, <br />
                      persatuan Indonesia <br />
                        dan kerakyatan yang dipimpin oleh hikmat kebijaksanaan dalam
                      permusyawaratan/perwakilan, <br/>
serta dengan mewujudkan suatu keadilan sosial bagi seluruh rakyat Indo
   🔻 🛗 Ma 🏽 E-L. 🚳 SIA | 🕲 EV/: | 🤡 Per | 🔼 (10 | 📓 Dor | 🕙 01. | 👏 Fire | 🔼 (10 | 💰 Dor | 👶 phj | 🕄
UNDANG-UNDANG DASAR NEGARA REPUBLIK INDONESIA TAHUN 1945
 FEMBURAAN
Bahwa sesungguhnya kemerdekaan itu ialah hak segala bangsa dan oleh sebab itu,
maka penjajahan di atas dunia harus dihapuskan, karena tidak sesuai dengan peri-kemanusiaan dan peri-keadilan.
 Dan perjuangan pergerakan kemerdekaan Indonesia
 Dan Jerjuangan Pogrataan Kenterotekaan mooisea
telah sampailah kepada saat yang membahagiakan dengan selamat sentausa
mengantarkan rakyat Indonesia ke depan pintu gerbang kemerdekaan Negara Indonesia
yang merdeka, bersatu, berdaulat, adil dan makmur.
 Atas berkat rakhmat Allah yang maha kuasa dan dengan didorongkan oleh keinginan luhur
 supaya berkehidupan kebangsaan yang bebas,
maka rakyat Indonesai menyatakan dengan ini kemerdekaannya
Kemudian dari pada itu untuk membentuk suatu Pemerintah Negara Indonesia yang melindungi segenap bangsa Indonesia dan seluruh tumpah darah Indonesia dan untuk memajukan kesejahteraan umum, mencerdaskan kehidupan bangsa dan ikut melaksanakan ketertiban dunia yang berdasarkan kemerdekaan, perdamaian abadi dan keadilan sosial, maka disusunlah Kemerdekaan Kebangsaan Indonesia itu dalam suatu susunan Negara Republik Indonesia, yang berkedaulatan rakyat dengan berdasar kepada:
Ketuhanan Yang Maha Esa,
Kemanusiaan yang adil dan beradab,
persaman Indonesia
 persatuan Indonesia
dan kerakyatan yang dipimpin oleh hikmat kebijaksanaan dalam permusyawaratan/perwakilan,
  serta dengan mewujudkan suatu keadilan sosial bagi seluruh rakyat Indonesia.
Explanation:
```

- `**<hr>**` : serves to create horizontal lines on the page, usually to separate content.

# **Practical Section 7: Using List**

HTML supports lists in the form of ordered, unordered, and definition lists. For each of these types, there are list items represented by the and tags, which indicate the individual items within the list.

Steps	Description	
1	Create a file named list.html and save it in the dasarWeb folder that you created in Practical Section 2.	
2	Type the following code into list.html:	
3	st.html   x	
4	Open your browser and type the following address: localhost/dasarWeb/list.html.	
5	Observe what appears in the browser.	
6	Record your observations (question No. 11) and write your answer below.	

```
Ordered List
                                              duatiga
                                       tiga

<br />
<br />
<br />
Unordered List
                                              tiga

<pre
                                       <dl>
<dt><at>>
<dt><at>>
<at>>

                                       <dd>dua</dt>
</dd>
</dd>
</dd>
</dd>
</dd>
</dd>
                                                                                                                                                                 3
                                                        EV
                                                                      ① 127.0.0.1:5500/dasarweb/l
    Ordered List
                 1. satu
                 2. dua
                 3. tiga
   Unordered List
                 • satu

    dua

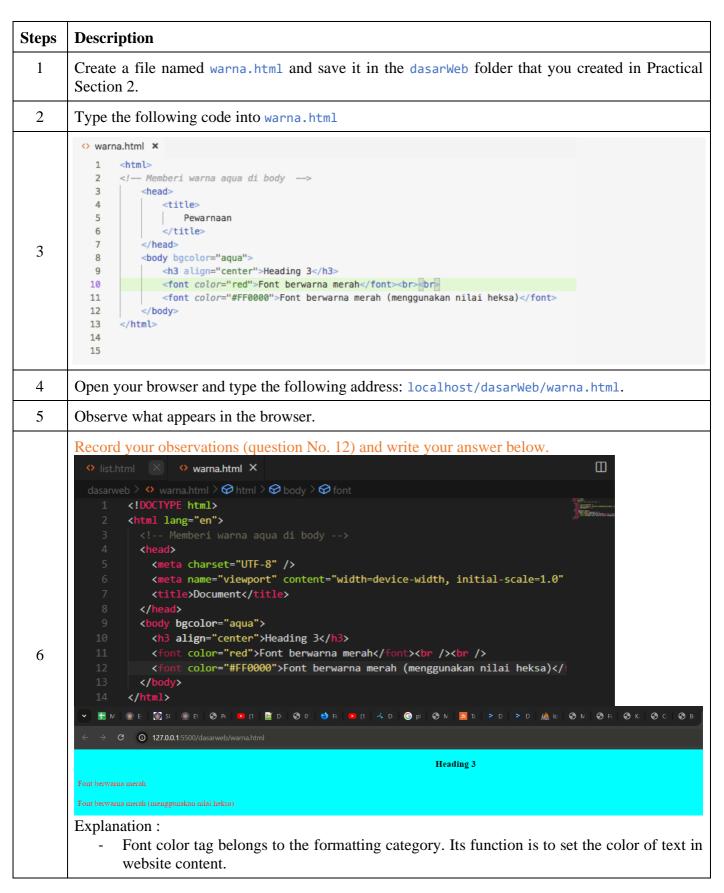
    tiga

   Definition List
                          satu satu
                          satu dua
                          dua dua
Explanation:
                                       `` : serves to create a sequential list.
                                      `: defines an item in the list.
                                      `` : serves to create an unordered list.
                                  `<dl>` : serves to list descriptions.
                                      `<dt>` : defines the name in the description list.
                                      `<dd>` : serves to define the description of the item in the description list.
```

#### **Practical Section 8: Coloring**

To set a background color, HTML provides the bgcolor attribute in the <body> tag. This attribute can be filled with a color name (e.g., red) or a hexadecimal code (e.g., #FFFFFF).

For certain other elements, the color attribute is available to apply coloring. Similar to bgcolor, the value of this attribute can also be a color name or a hexadecimal code.



# **Practical Section 9: Working with Images**

An HTML document can contain graphics in addition to text.HTML offers the <img> tag, which is supported by several attributes, for this purpose.

Steps	Description	
1	Place an image in the dasarWeb folder with any size and name the image bunga2. If the image is in JPG format, the name should be bunga2.jpg (the file can be in a format other than JPG).	
2	Create a new folder inside the dasarWeb folder and name it img.	
3	Place a different image with any size in the img folder and name it bunga1. If the file is in JPG format, the name should be bunga1.jpg (the file can be in a format other than JPG).	
4	Create a file named gambar.html and save it in the dasarWeb folder that you created in Practical Section 2.	
5	Type the following code into gambar.html:	
6	<pre></pre>	
7	Open your browser and type the following address: localhost/dasarWeb/warna.html.	
8	Observe what appears in the browser.	
9	Record your observations on the two methods of displaying images on the webpage (question No. 13) and write your answer below.	

```
PE html>
<html lang="en">
<head>
     <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0":
<title>Bekerja Dengan Gambar</title>
         <!-- Menggunkan path Relative -->
<img src="img/header-bg1.jpeg" alt="path relative">
          Lorem ipsum, dolor sit amet consectetur adipisicing elit. Consequ
          <img src="img/header-bg1.jpeg" align="right" alt="path absolute";</pre>
          Lorem ipsum, dolor sit amet consectetur adipisicing elit. Ab, con
</body>
                                                                                                                 Q # D | 6
```

### Explanation:

Path relative: This is a path that indicates the location of a file relative to the current file or directory location. Does not include the entire path of the root directory or domain. Path absolute: It is a path that shows the complete file location from the root of the directory (for file systems) or from the domain (for URLs), regardless of the current location.

### **Practical Section 10: Link**

- A link in HTML is called a Hyperlink.
- A Hyperlink is an element, text, or an image that can be clicked to navigate to another document.
- The browser will highlight text or images identified as links with a color and/or underline to indicate that it is a hypertext link (hyperlink or link).
- The syntax for a link in HTML:

The <a> (Anchor) tag is used to create a link to another document by adding the href attribute, which defines the link's destination.

<a href="url">linked text</a>

- The href attribute provides the link's destination address.
- The linked text is the text that will appear on the webpage containing the link, and when clicked, it will navigate to the address specified in the href attribute.
- Example: <a href="https://polinema.ac.id">Click to go to Polinema</a>

### • Types of Links

### a) Relative Link

A local link that points to a location within the same website, specified by a URL (without https://www.).

#### b) Absolute Link

Used to create a link to a webpage on another website on the internet.

### c) Link within the Same Document

This type of link is used for long documents that, when displayed in a web browser, require the user to scroll repeatedly. Navigation within the document can be simplified by creating links between sections, with each section being marked with a name. This allows a link to be placed elsewhere in the document to jump to that specific section.

Steps to name a section within a document:

- Place the cursor at the line or text that will mark the beginning of the section.
- Insert the name of the section with: <a name="section name">.
- Creating a link to the same document can be done similarly to absolute or relative links, but the document's name in the link is replaced with the section name, prefixed by #. Example:

<a href="#section name">Section about link</a>.

#### **Practical Steps:**

Steps	Description
1	Create a file named macamLink.html and save it in the dasarWeb folder that you created in Practical Section 2.
2	Type the following code into macamLink.html:
3	

```
O macamLink.html X
           <title>Membuat Link</title>
           <head>
           </head>
           <body>
               <a name="TOP">
                   <h4>Macam-macam Link</h4>
                   <a href ="#Link Relatif">Link Relatif</a><br>
                   <a href ="#Link Absolut">Link Absolut</a><br
                   <a href ="#Link with New Window">Link with New Window</a><br>
 12
                  <a href ="#Link ke Email">Link Ke Email</a>
  14
               15
               17
               18
 20
               21
               22
 23
               24
               25
 26
               27
               28
 29
               <a name="Link Relatif">
 30
                   <h1>Ini adalah contoh Link Relatif</h1>
 31
 32
                       \label{lik} \textbf{Klik} <& \textit{href} = "gambar.html"> \textit{di sini} </ a> \ \textit{Jika} \ \textit{Anda ingin menuju ke halaman berikutnya.} <& \textit{br}>< \textit{br}> \ \textit{di sini} </ a> \ \textit{di sini} </ a>
 33
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
                       labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
 35
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
 35
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
 36
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
                       qui officia deserunt mollit anim id est laborum.
  37
 38
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
 39
                       labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
 41
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
 42
                       qui officia deserunt mollit anim id est laborum.<br/>
<br/>br>
<br/>br>
<br/>br>
<br/>br>
                       <a href="#TOP">Kembali Ke Menu</a>
 44
 45
                </a><br><br
 47
                <a name ="Link Absolut">
 48
                   <h1>Ini adalah contoh Link Absolut</h1>
  49
                       Klik <a href="http://www.google.com">di sini</a> untuk pencarian yang Anda inginkan.<br>
  50
 51
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
                       labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
 52
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
  53
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
 54
 55
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
 57
                       labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
                       nisi ut aliquip ex ea commodo conseguat. Duis aute irure dolor in reprehenderit in voluptate velit esse
 58
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
 60
                       61
                       <a href="#TOP">Kembali Ke Menu</a>
 63
 64
                </a>
 65
                       ="Link with New Window">
  66
 67
                   <h1>Ini adalah contoh Link dengan Window Baru</h1>
 68
  69
                       Buka <a href="http://www.google.com" target="_blank">www.google.com</a> di halaman baru.<br/>br>
  70
                        Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
  71
                        labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
  72
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
  74
                        qui officia deserunt mollit anim id est laborum.
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
  75
  76
                        labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
  77
                        nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
  78
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
  79
                       81
                       82
                    83
  84
                       ="Link ke Email">
 85
                   <h1>Ini adalah contoh link ke email</h1>
  86
                       Anda bisa menghubungi saya di <a href = "mailto:dyah.ayu@polinema.ac.id">email ini</a>
  88
                        untuk pertanyaan lebih lanjut.<br><br>
 89
                       Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
                        labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
  90
                       nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
  91
  92
                       cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
                       qui officia deserunt mollit anim id est laborum.
 93
```

```
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut
                                   95
                                                                                   labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris
                                   96
                                                                                  nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
                                                                                  cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
                                   98
                                                                                  qui officia deserunt mollit anim id est laborum.
                                  99
                                                                         </a>
                                 100
                                                                <br/>br><br
                                102
                                                                <a href="#TOP">Kembali Ke Atas</a>
                                                         </body>
                                103
                                               </html>
                                104
4
                           Open your browser and type the following address: localhost/dasarWeb/macamLink.html.
5
                           Observe what appears in the browser and how each link functions.
                            Record your observations (question No. 14) and write your answer below.

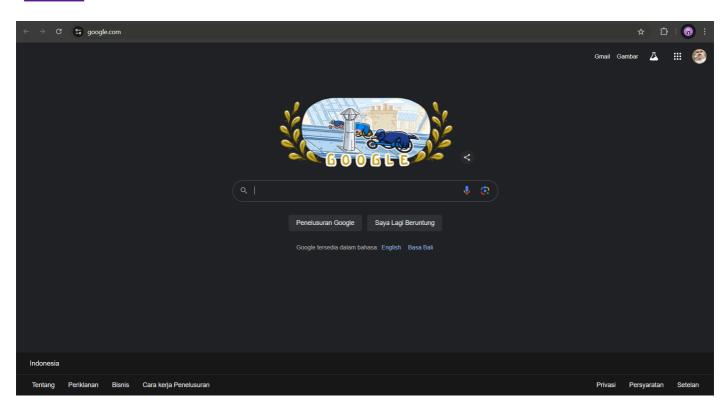
    macamLink.html > 分 html > 分 body > 分 a
                                                <title>Membuat Link</title>
                                                          <a name="TOP">
                                                               <h4>Macam-macam Link</h4>
                                                           <a href="#Link Relatif">Link Relative</a><br />
                                                          <a href="#Link Absolute">Link Absolute</a><br/>
<a href="#Link with New Window"></a><br/>
<a href="Link ke Email">Link ke Email</a>
                                                       6
                                 📑 Mah 🌸 E-Le 🚺 SAA! 🍥 EVA! 🤡 Peris 📭 (102 📑 Dov | 😵 01-) | 🐪 Fire! 📭 (102 | 🕏 Doc | 🍪 My! 🔞 peris 🔊 Dec; 🔊 Dec; 🎎 local | 🔞 Chat | 🚱 🗙 🕞
                            Ini adalah contoh Link Relatif
                               orem, ipsum dolor sit amet consectetur adipisicing elit. Quo magnam modi impedit quod quidem debitis? Reiciendis magni laborum tempora? Quibusdam quaerat eos eum, praesentium nam fugit corporis dignissimos. Voluptas, atus. Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatem explicabo facere dolor, soluta minus dicta autem ducimus placeat quia inventore, blanditiis voluptate saepe excepturi aperiam optio possimus corporis, onsequuntur fuga. Lorem ipsum dolor sit amet consectetur adipisicing elit. Magnam accusantium perferendis rerum ut pariatur? Eos saepe dolore facere facilis perferendis, deserunt sed explicabo atque perspiciatis, laboriosam labore eniam distinctio delenit!
                            Kembali Ke Menu
                            Ini adalah contoh Link dengan Window Baru
                            Lorem ipsum dolor, sit amet consectetur adipisicing elit. Quae vitae eius laudantium ex blanditiis adipisci id nostrum, quia placeat harum sapiente veniam reprehenderit incidunt ab! Quae aut facilis illum odit. Lorem ipsum dolor sit, amet consectetur adipiscing elit. Quidem vel, tempora iusto accusantium eum placeat adipisci omisi dolorum perspiciatis? Reprehenderit voluptas quam quae voluptatibus assumenda blanditiis neque dolorum ad doloribus! Lorem ipsum dolor, sit manet consectetur adipiscing elit. Nelloritatio adore sit amet consectetur adipiscing elit. Nelloritation elit. September elit. Septe
                            Kembali ke Menu
                           Explanation:
                                                  - For make it list in link
```

### **Practical Task Section 10: Links**

Create a webpage and name it tugasLink.html.

# You Want to Open Google?

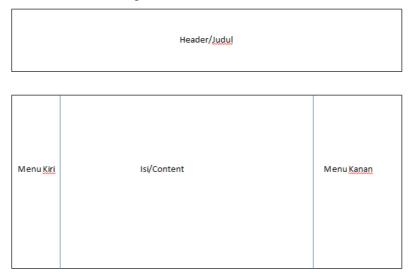
### Click Me



### **Practical Section 11: Table and Table Formatting**

In a webpage, tables serve as a framework for organizing the content components, ensuring that the content is arranged neatly within the webpage.

Here is an example of a table structure design:



Picture 6. Example of a Table in a Web Page

### Creating Table

Creating a table in HTML begins with the tag and ends with the tag.

- : This tag informs the browser that it is a table.
- : Table Row tag, used to create a row within the table.
- : Table Data tag, used to place the data that you want to include in the table. The can also be understood as a column.

The structure of a table is illustrated in Figure 7.



Figure 7. Table Structure

The syntax for creating a table is as follows:

```
<thead>

 Header Content 
 Header Content 

</thead>

 Body Content 
 Body Content 

 Body Content
```

#### **❖** Table Configuration

Here are the attributes that can be used for table and row configuration.

### Attributes for Tabel

Attribute	Description
align	Used to align the table to the left, center, right, or justify it.
border	Used to set the thickness of the border lines between cells in the table.
width	Used to specify the width of the table; you can set the table width using a percentage (%).
cellspacing	Used to define the space (padding) between cells and between the cells and the border.
cellpadding	Defines the space (padding) between the content of the cell and the cell's border.
bgcolor	Specifies the background color for all cells in the table.
bordercolor	Used to set the color of the border lines.

### • Attributes for Table Row

Attribute	Description
align	Used to align the table to the left, center, right, or justify it.
valign	Used for vertical alignment; valign can be set to values such as top (top of the page), center (middle of the page), bottom (bottom of the page), or baseline (standard).
bgcolor	Indicates the background color for the row.

## Merger Cell

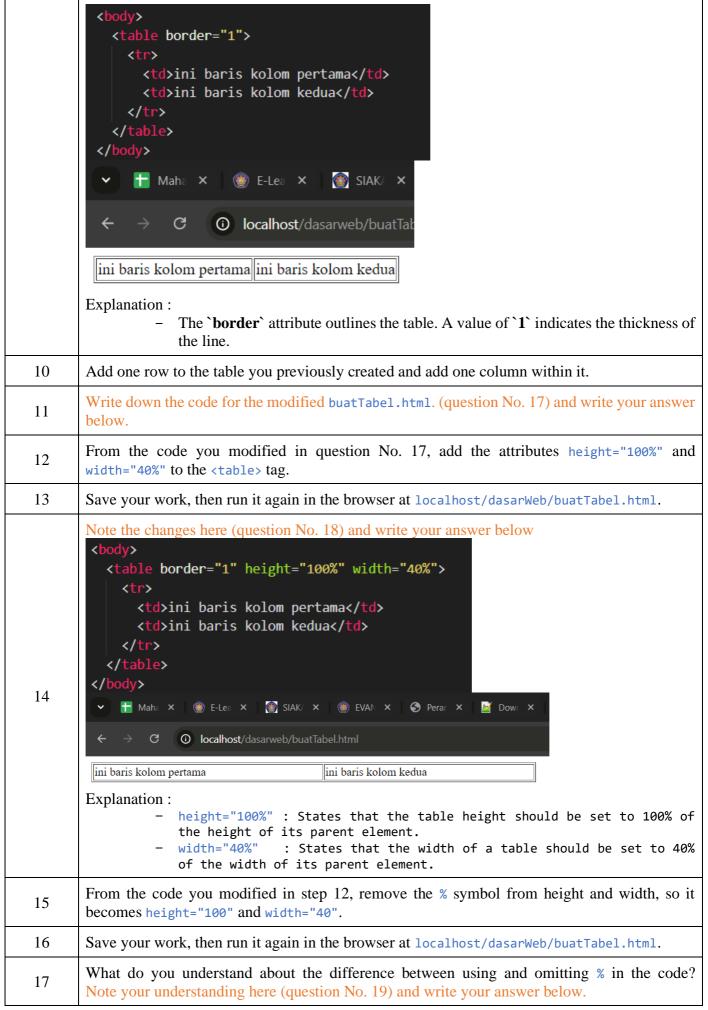
Table cell merging can be achieved using the following attributes:

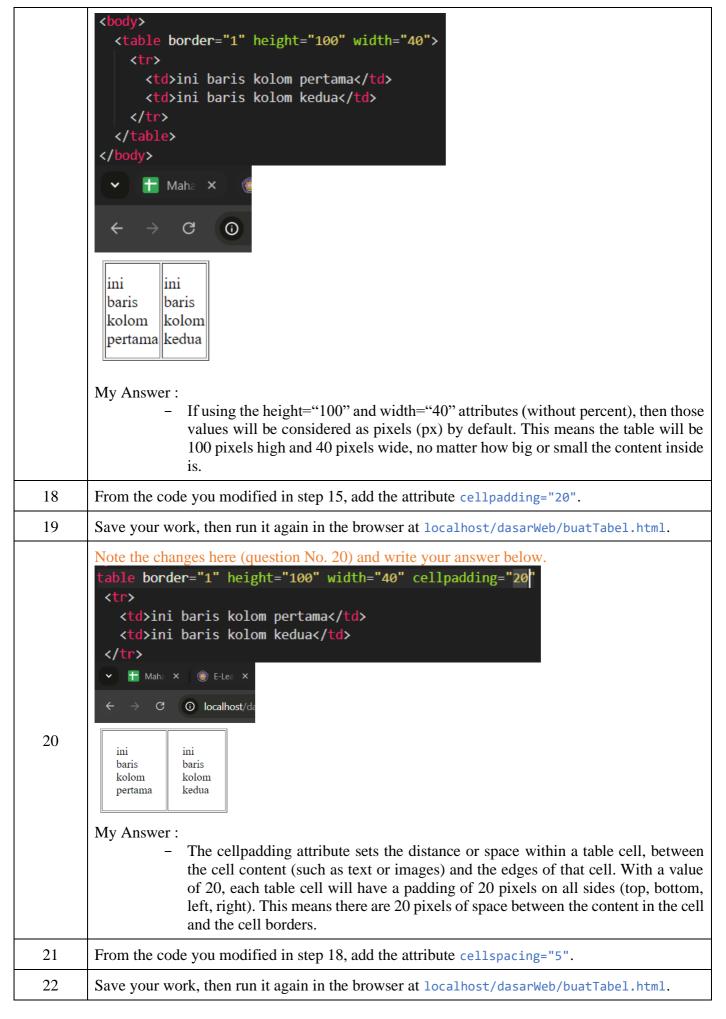
- Rowspan: Used to merge cells across multiple rows. For example, to merge three rows, you would set rowspan="3".
- Colspan: Used to merge cells across multiple columns. For example, to merge three columns, you would set colspan="3".

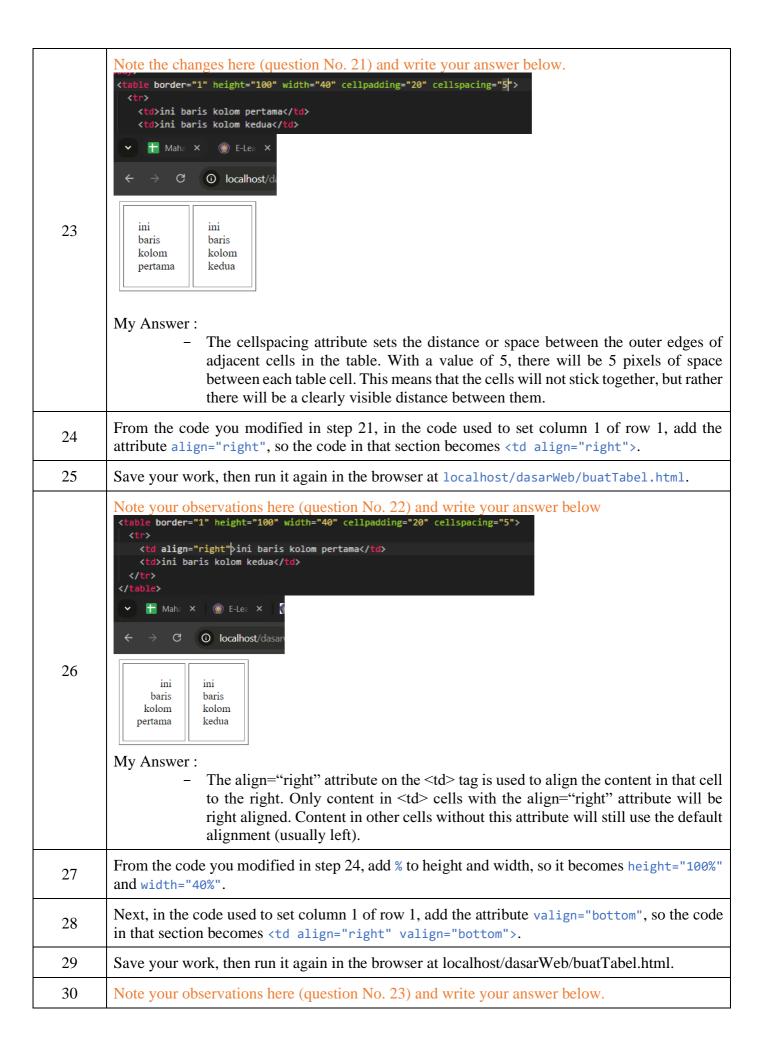
### **Practical Steps:**

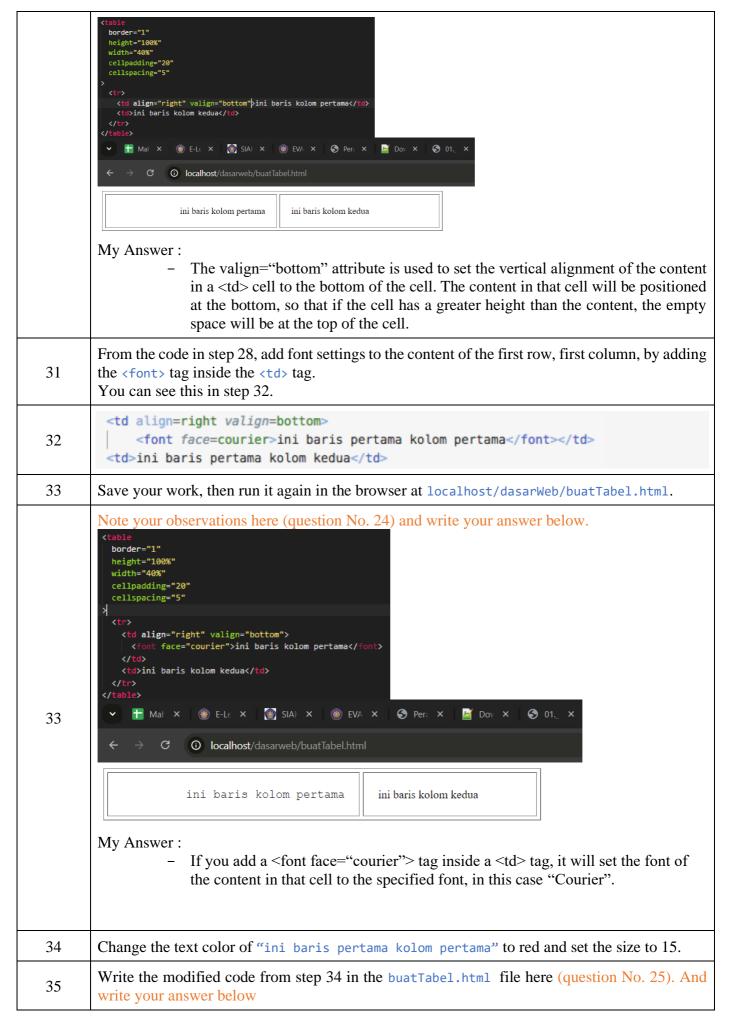
Steps	Description
1	Create a file named buatTabel.html and save it in the dasarWeb folder that you created in Practical Section 2.
2	Type the following code into buatTabel.html

```
O buatTabel.html ×
         1
            <html>
         2
              <head>
         3
                 <title>
         4
                   Membuat tabel
                 </title>
         6
              </head>
         7
              <body>
3
         8
                 9
        10
                      ini baris pertama kolom pertama
                  ini baris pertama kolom kedua /td>
        11
        12
                    13
        14
               </body>
        15
            </html>
4
      Open your browser and type the following address: localhost/dasarWeb/buatTabel.html.
5
      Observe what appears in the browser.
       Record your observations (question No. 15) and write your answer below.
                <!DOCTYPE html>
           2 <html lang="en">
           3 ∨ <head>
                     <meta charset="UTF-8" />
                     <meta name="viewport" content="width=device-width, in</pre>
                    <title>Membuat Tabel</title>
                  </head>
                    >
                         ini baris kolom pertama
                         ini baris kolom kedua
                       6
                  </body>
                </html>
                                         SIAK/
                           E-Lea X
                   G
                         localhost/dasarweb/buatTabel.ht
        ini baris kolom pertama ini baris kolom kedua
      Explanation:
                   ``: The main element that wraps the entire table.
                   ``
                            : Used to create rows in a table.
                   ```
                             : Used to hold data in a table, representing a column.
      Add the attribute border="1" to the  tag. Save the file and run it again in the browser at
7
      localhost/dasarWeb/buatTabel.html.
8
      Observe what changes appear on the screen.
9
      Record your observations (question No. 16) and write your answer below.
```









```
My Answer:
                      border="1"
                      height="100%"
                      width="40%"
                      cellpadding="20"
                      cellspacing="5"
                        nt face="courier" style="color: ■red; font-size: 15px"
                          >ini baris kolom pertama</for
                        ini baris kolom kedua
                   By adding the style attribute and then choosing the color and setting the desired
                   font size (the question asks to change the font color to red and change the font
                   size to 15px).
       After completing step 35 in the buatTabel.html code, add the attribute colspan="2" to the
36
       second row, first column, so that the  tag results in a code snippet similar to what is
       shown in step 37.
               <font face=courier>ini baris pertama kolom pertama</font>
                     ini baris pertama kolom kedua
37
                  ini sekarang menjadi gabungan 2 kolom
                  From the code you completed in step 36, add one more column to the first row, so that the
38
       display will look like what is shown in step 39.
                        ini baris
                                   tambah
                        pertama
                        kolom
                                   kolom
                        kedua
            ini baris
              pertama
               kolom
              pertama
39
         ini sekarang menjadi gabungan 2
         kolom
       (question No 26) Write down your code here
       My Answer:
```

```
<!DOCTYPE html>
                          <html lang="en">
                             <meta charset="UTF-8" />
                             <meta name="viewport" content="width=device-width, initial-scale=1.0"</pre>
                             <title>Membuat Tabel</title>
                               border="1"
                               height="100%"
                              width="40%"
                               cellpadding="20"
                               cellspacing="3"
                                ini baris kolom pertama
                                ini baris kolom kedua
                                tambah 1 kolom
                               ini sekarang menjadi gabungan 2 kolom
                               </body>
                          </html>
                       G
                               localhost/dasarweb/soalTabel
                                ini
  tambah
                       ini baris
                                baris
                        kolom
                                kolom
   kolom
                       pertama
                                kedua
                      ini sekarang menjadi
                      gabungan 2 kolom
      Next, add one more column to the second row so that the display will look like what is shown
40
      in step 41.
```

34

ini baris tambah pertama kolom kolom ini baris kedua pertama kolom pertama ini juga tambah 1 ini sekarang menjadi gabungan 2 kolom kolom lagi (question No 27) Write down your code here My Answer: border="1" height="100%" width="40%" cellpadding="20" cellspacing="3" ini baris kolom pertama 41 ini baris kolom kedua tambah 1 kolom ini juga tambah 1 kolom lagi ini sekarang menjadi gabungan 2 kolom localhost/dasarweb/soalTabe ini tambah ini baris baris 1 kolom kolom kolom pertama kedua ini juga tambah 1 ini sekarang menjadi kolom gabungan 2 kolom lagi

42	Add the attribute rowspan="2" to the second row, first column. Save your work, run it in the browser, and observe the changes.
	Note your observations here (question No. 28) and write your answer below.  My Answer:  - rowspan="2": this attribute makes the first cell in the second row span across two rows. It is combined with colspan="2" so that the cell spans both two columns and two rows.
43	
44	From the code in step 42, remove rowspan="2" from the second row, first column.
45	Then add rowspan="2" to the first row, first column so that the code will look like what is shown in step 46.
46	<pre></pre>
47	Save your work and run it in your browser. Observe the difference between the code in step 42 and step 45.
48	Note your observations here (question No. 29) and write your answer below.  My Answer:  - rowspan="2" is now applied to the first cell of the first row, making it span across two rows. The updated structure allows the first cell of the first row to stretch across both the first and second rows.  - The second row's first cell no longer has the rowspan attribute, and the table adjusts accordingly.

# **Practical Section 12: Working with Forms in HTML**

A form is a place for data input before being processed by the system. Examples include login forms, comment forms, user data forms, and more. The process of data input from a form will be discussed in PHP, MySQL, and JavaScript materials. The tag used to create a form is the <form> tag, which can contain elements like <input>, <textarea>, <option>, and <select>.

The form has attributes such as action and method. The action attribute specifies the URL that will be executed and receives all the input from the form. If action is not specified, the form data will be sent to the same URL as the webpage itself, while the method attribute contains the method used by the form to submit the data (GET/POST).

- **GET**: Information is sent along with the URL.
- **POST**: Information is sent separately from the URL.

### Syntax:

```
<form action="url" method="GET|POST">
    ..... form fields
</form>
```

### **INPUT Element**

The <input> element is used to define the input that will be provided by the user. This element has attributes such as name, size, type, value, and checked.

- The name attribute defines the name of the input control within the form.
- The size attribute defines the size of the text within the input control.
- The type attribute defines the different types of input controls.
- The value attribute defines the initial value, reset, or submit value.
- The checked attribute defines the selected option for radio or checkbox types.

This element does not have a closing tag and must be placed within a <form> element.

## Syntax:

```
<input name="name" type="text" value="Name of ....">
<input name="name_val" size="number" type="checkbox" value="1" checked>
```

Attributes type:

Туре	Description
button	<pre><input type="button"/>: Defines a clickable button (usually used with a JavaScript script).</pre>
checkbox	<pre><input type="checkbox"/>: Defines a checkbox.</pre>
color (HTML5)	<pre><input type="color"/>: Defines a color picker.</pre>
date (HTML5)	<pre><input type="date"/>: Defines a date picker (year, month, day with no time).</pre>
datetime-local (HTML5)	<pre><input type="datetime-local"/>: Defines a date and time picker (year, month, day, time with no timezone).</pre>
email (HTML5)	<pre><input type="email"/>: Defines an input area for an email address.</pre>
file	<pre><input type="file"/>: Defines an area for selecting a file with a "Browse" button (for file uploads).</pre>
hidden	<pre><input type="hidden"/>: Defines a hidden input field.</pre>
image	<pre><input type="image"/>: Defines an image as a button.</pre>
month (HTML5)	<pre><input type="month"/>: Defines a month and year picker (no timezone).</pre>
number (HTML5)	<pre><input type="number"/>: Defines an area for entering a number.</pre>

password	<pre><input type="password"/>: Defines an area for entering a password.</pre>
radio	<pre><input type="radio"/>: Defines a radio button.</pre>
range (HTML5)	<pre><input type="range"/>: Defines a range control (like a slider).</pre>
reset	<pre><input type="reset"/>: Defines a reset button.</pre>
search (HTML5)	<pre><input type="search"/>: Defines a text area for entering a search query.</pre>
submit	<pre><input type="submit"/>: Defines a submit button.</pre>
tel (HTML5)	<pre><input type="tel"/>: Defines a text area for entering a phone number.</pre>
text	<pre><input type="text"/>: Default. Defines a single-line text area.</pre>
time (HTML5)	<pre><input type="time"/>: Defines a time picker (no timezone).</pre>
url (HTML5)	<pre><input type="url"/>: Defines an area for entering a URL.</pre>
week	<pre><input type="week"/>: Defines a week and year picker (no timezone).</pre>

### **SELECT Element**

The <select> attribute is used to define selectable options in a form control. This element has attributes such as name, size, and multiple (which allows multiple selections). This element must be placed within a <form> element.

## Syntax:

```
<select name="name" size="number" multiple>
    .....
</select>
```

#### **OPTION Element**

The <option> element defines the selectable options within a <select> menu. This element has attributes such as selected and value. The selected attribute indicates the default selected option, and the value attribute holds the value associated with the option element.

#### Syntax:

```
<select name="name" size="number">
    <option value="value-1">Text 1</option>
    <option value="value-2">Text 2</option>
    <option value="value-3">Text 3</option>
    </select>
```

## **TEXTAREA Element**

The <textarea> element functions as a form input control for entering multi-line text. This element has attributes such as name, cols, and rows. The name attribute defines the name of the input control for the <textarea> element, the cols attribute defines the number of visible columns in the textarea, and the rows attribute defines the number of visible rows in the textarea. This element must be placed within a <form> element.

### Syntax:

```
<textarea name="name" rows="number" cols="number">
    ..... text
</textarea>
```

## **Practical Steps:**

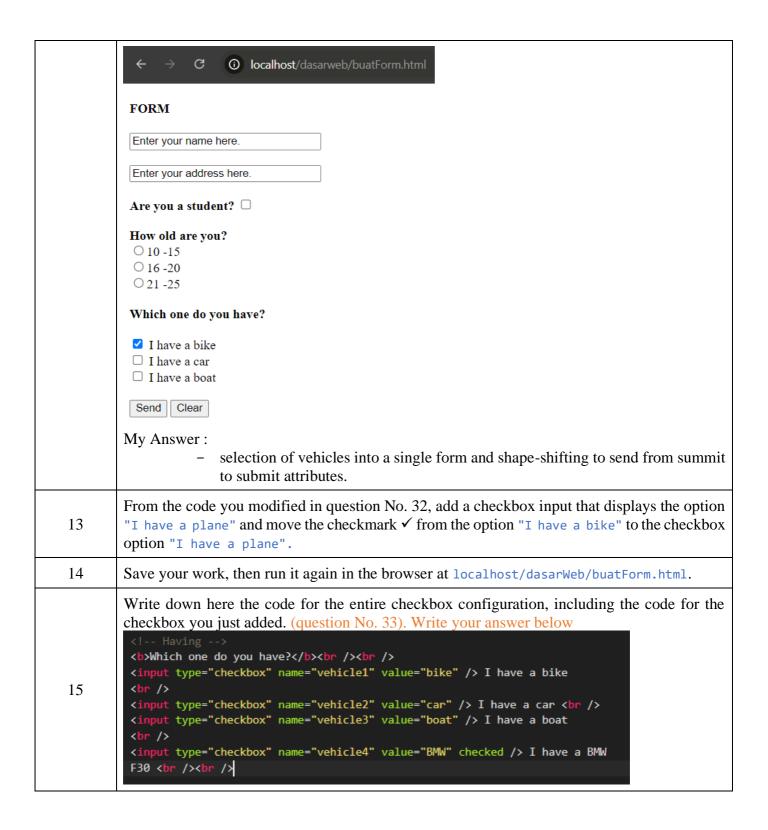
Steps Description
-------------------

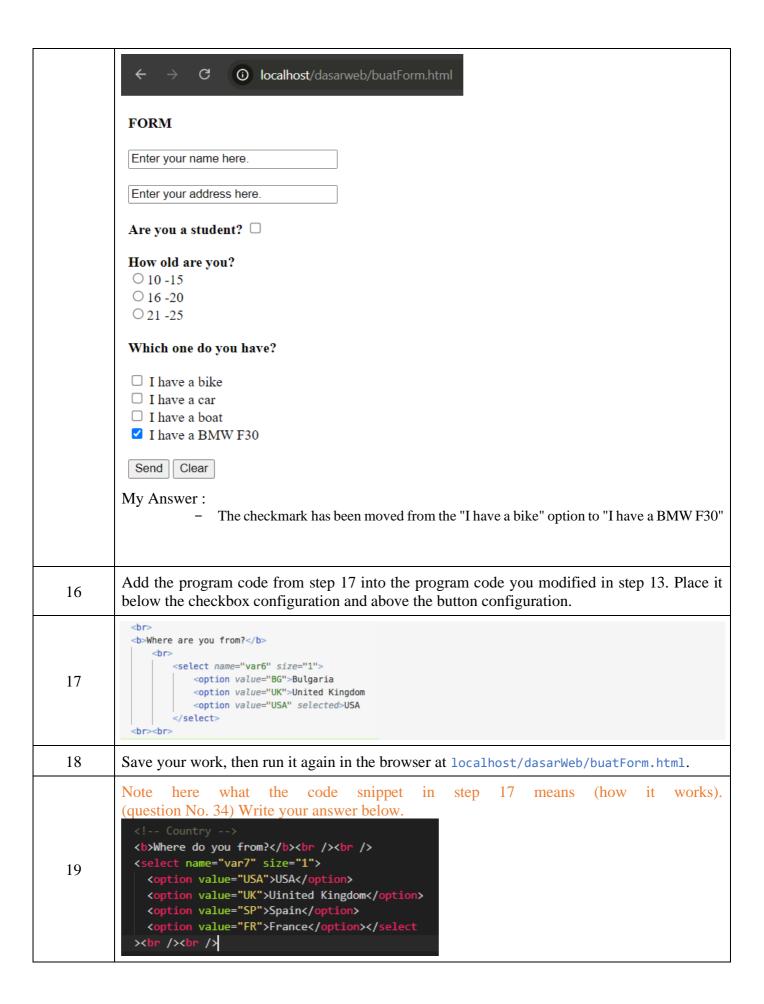
	First, in this practical session, you will create a form with elements as shown in the picture:
1	FORM
	Enter your name here.
	Are you a student?
	How old are you?  10 - 15  16 - 20  21 - 25
	Send Clear
2	Create a file named buatForm.html and save it in the dasarWeb folder that you created in Practical Section 2.
3	Type the following code into buatForm.html:
4	<pre><html> <head>     <title>Membuat Form</title> </head>  <body>     <form action="gambar.html" method="POST"></form></body></html></pre>
5	Save the file, then open your browser and type the following address: localhost/dasarWeb/buatForm.html.
5	- · · · · · · · · · · · · · · · · · · ·

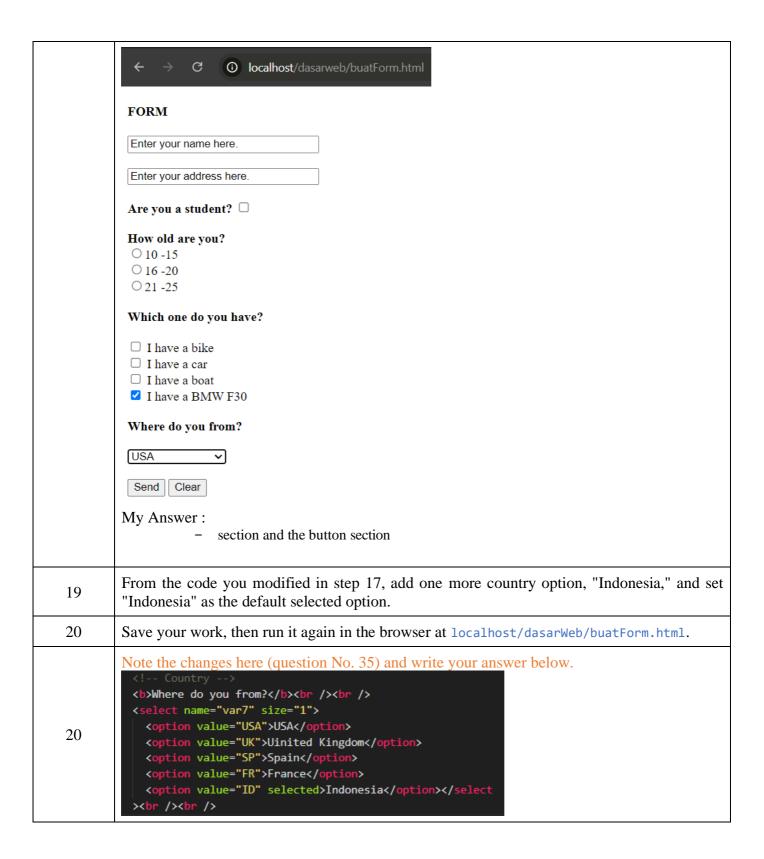
```
<!DOCTYPE html>
<html lang="en">
                        ta charset="UTF-8" />
                        ta name="viewport" content="width=device-width, initial-scale=1.0" />
tle>Membuat Form</title>
                        rm method="POST" action="gambar.html">
                      <h4>FORM</h4>
                      <input type="text" name="var1" size="30" value="Enter your name here." />
<br /><br />
                      <br/>
<br/>
Are you a student?</b>
                      <input type="
<br /><br /></pr
                      <br/>b>How old are you?</b>
                      cinput type="radio" name="var4" value="r1" />10 -15 <br />
cinput type="radio" name="var4" value="r2" />16 -20 <br />
cinput type="radio" name="var4" value="r3" />21 -25 <br /><br />
cinput type="summit" name="var5" value="Send" />
cinput type="reset" name="var6" value="Clear" />
                    </form>
                                       G
                                    localhost/dasarwe
            FORM
            Enter your name here.
            Are you a student?
            How old are you?
            0 10 -15
            \bigcirc 16 -20
            \bigcirc 21 -25
            Send
   Clear
          My Answer:
                              <form method="POST" action="image.html">: This form uses the POST
                              method and will send data to the image.html file when the submit button is
                              pressed.
                              <input type="text" name="var1" size="30" value="Enter your name here."> is
                              used to retrieve the username.
                              <input type="checkbox" name="var3"> is a checkbox to confirm whether the
                              user is a student. Radio Button:
                              <input type="submit" name="var5" value="Send"> to send data.
                              <input type="reset" name="var6" value="Clear"> to clear all entered input.
          Note your observations and understanding here (question No. 30) and write your answer below.
          Add a text input field to enter an address, placing it below the text input field for entering a
8
          Save the file, then run it in the browser at localhost/dasarWeb/buatForm.html.
9
          Observe what changes in the display.
```

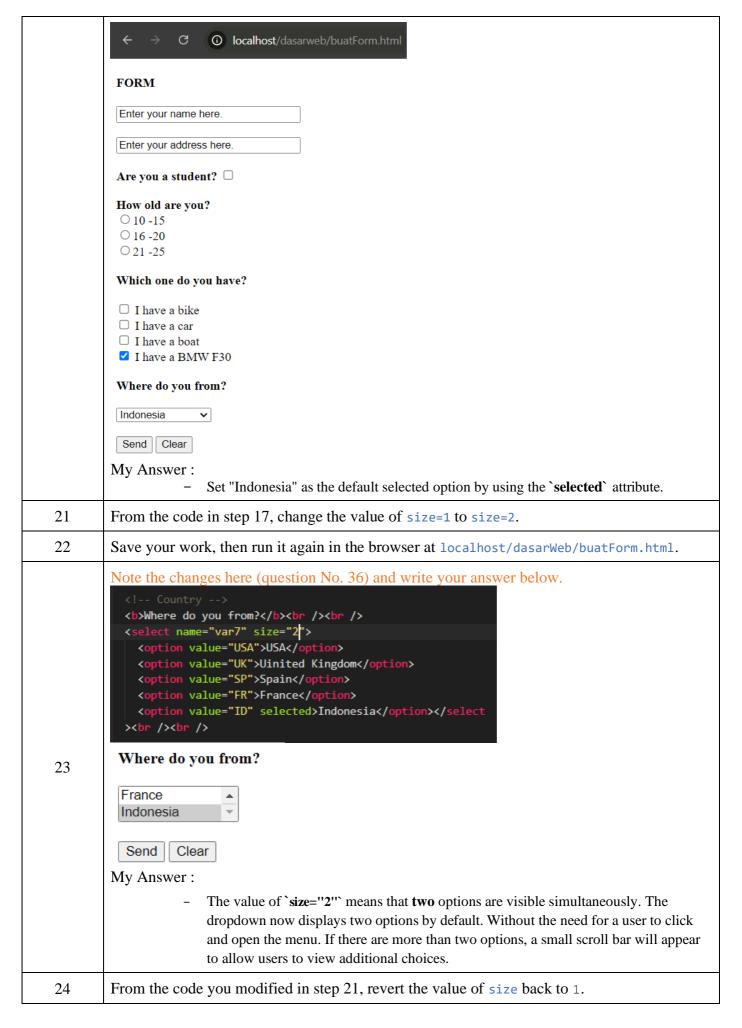
Record the code you added in step 7 here (question No. 31) and write your answer below. the book of the detect of the <title>Membuat Form</title> method="POST" action="gambar.html"> <h4>FORM</h4> <!-- Name -->
<input type="text" name="var1" size="30" value="Enter your name here." /> <br /><br /> type="text" name="var2" size="30" value="Enter your address here." <br/>
<br/>b>Are you a student?</b> <input type="checkbox" name="var3" />
<br /><br /> <br/>tb>How old are you?</b> control of the service of the 10 G localhost/dasarweb/buatForm.html **FORM** Enter your name here. Enter your address here. Are you a student? How old are you? 0 10 -15 0 16 -20 021-25 Send Clear My Answer: The new address field should appear directly below the name field. The form layout should maintain its consistency with the addition of the new field. Add the following program code below the last radio button, above the submit and clear 11 buttons.

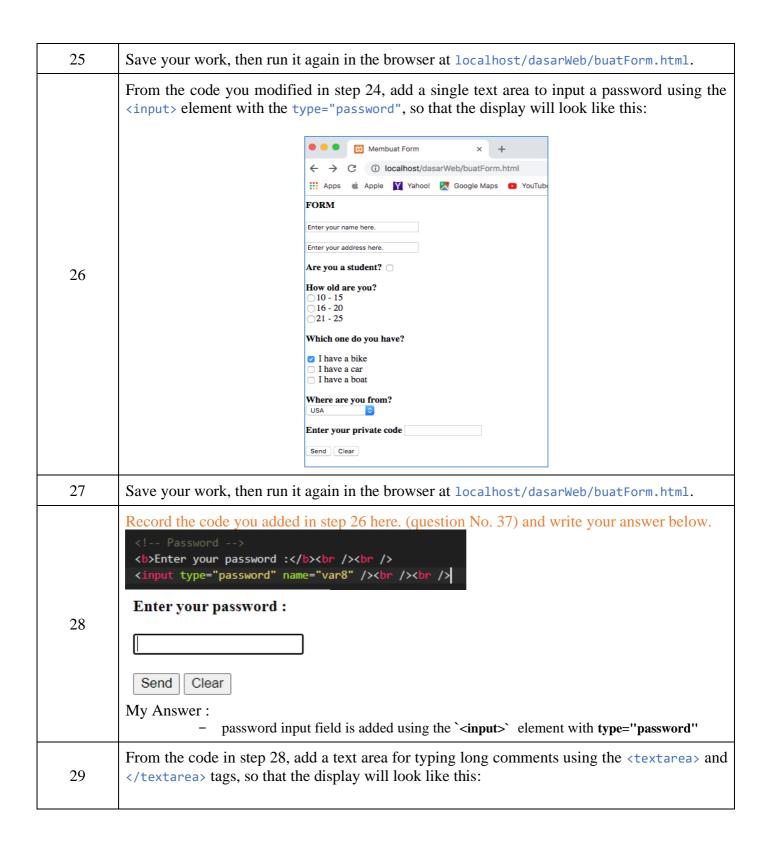
```
<b>Which one do you have?</b><br><br>
            <input type="checkbox" name="vehicle1" value="Bike" checked> I have a bike<br>
            <input type="checkbox" name="vehicle2" value="Car"> I have a car<br>
            <input type="checkbox" name="vehicle3" value="Boat"> I have a boat<br>
         Does the display in the browser look like the one shown below? (question No. 32).
   FORM
  Enter your name here.
  Enter your address here.
   Are you a student?
   How old are you?
  10 - 15
  0 16 - 20
  21 - 25
12
  Which one do you have?
  I have a bike
  ☐ I have a car
  ■ I have a boat
  Send Clear
         Write your answer here:
           <br/>
<b>Which one do you have?</b><br /><br />
           <input type="checkbox" name="vehicle1" value="bike" checked /> I have a
           <input type="checkbox" name="vehicle2" value="car" /> I have a car <br />
<input type="checkbox" name="vehicle3" value="boat" /> I have a boat
```

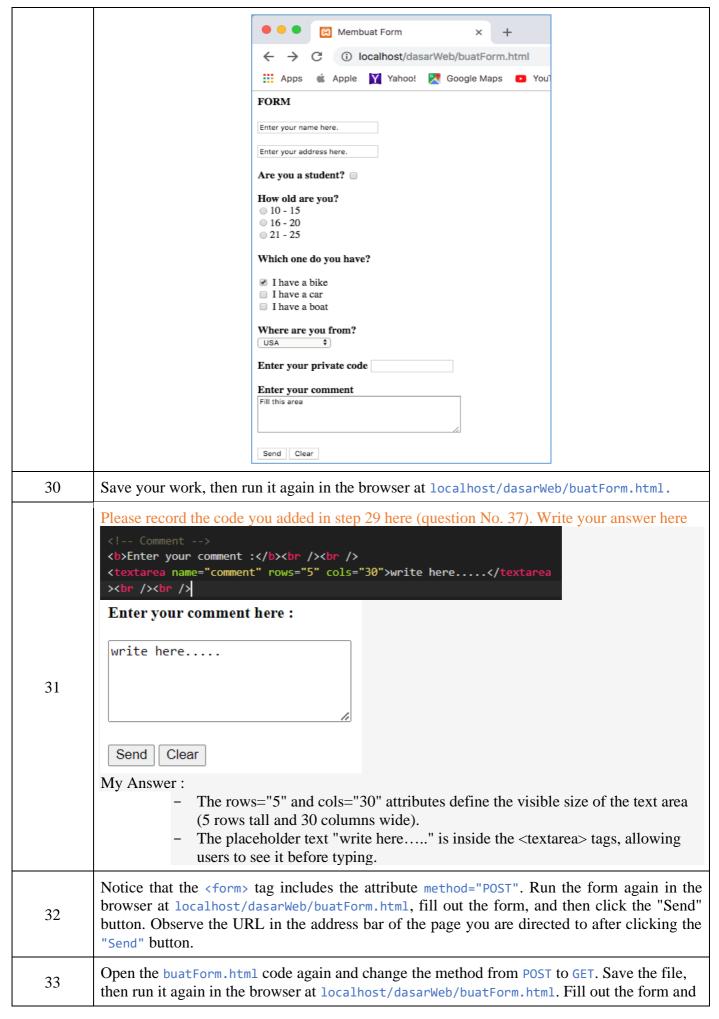












click the "Send" button. Observe the URL in the address bar of the page you are directed to after clicking the "Send" button. Compare and note the differences between the GET and POST methods based on what you observe. Note your observations here (question No. 38) and write your answer below. My Answer: When using POST, the form data is sent in the HTTP request body and not appended to the URL. FORM Are you a student? ○ 10 -15 ● 16 -20 ○ 21 -25 Which one do you have 34 Send Clear When using GET, all the form data is appended to the URL in key-value pairs. 📵 🖈 🖸 l 🕹 🔞 :

### **References:**

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- 2. Rian Ariona, Belajar HTML dan CSS (Tutorial Fundamental dalam mempelajari HTML dan CSS)
- 3. Adi Hadisaputra, HTML dan CSS Fundamental dari Akar menuju Daun
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