

WEB TECHNOLOGIES (104)

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Q1. write HTML and CSS for the following using div

	Header	
Navigation	Content	sidebar
	Footer	

Ans The HTML `<div>` tag defines a division or a section in an HTML document. The `<div>` tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript. The `<div>` tag is easily styled by using the class or id attribute. Any sort of content can be put inside the `<div>` tag!

Navigation :- Having easy-to-use navigation is important for any web site. With CSS you can transform boring HTML menus into good-looking

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Navigation bars

Using these steps, we can easily create the navigation bar:-

1) firstly, we have to type the HTML code in any text editor or open the existing HTML file in the text editor in which we want to make a navigation bar.

2 Now, we have to define the `<nav>` tag in the `<body>` tag where we want to make the bar.

Content :- The first concern might be that of a separation-between content-and-design purist. you are literally adding text content to the page with CSS content, and that breaks that barrier... This first with the idea of CSS, in that the HTML content doesn't need to change at

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all, this change could be solely accomplished with CSS.

Side bar :- open navigation pane over the left part of the page content. open navigation pane - over all of the page content. slide the page content to the right when opening the navigation pane - Display the navigation pane on the right side instead of the left side.

Write HTML for the following table

H1	H2	H3
C1	C2	
	C3	C4

Ans. • HTML is a language for describing web pages.

- HTML stands for HyperText Markup language
- HTML is not a programming language, it is a markup language.
- A markup language is a set of markup tags.
- HTML uses markup tags to describe web pages.

HTML tags

- HTML markup tags are usually called HTML tags
- HTML tags are keywords surrounded by angle brackets like <html>

- HTML tags normally come in pairs like and

- The first tag in a pair is the start tag, the second tag is the end tag
- start and end tags are also called opening tags and closing tags.

tags continued

- The opening and closing tags use the same command except the closing tag contains an additional forward slash/
- For example, the expression warning would cause the word 'warning' to appear in bold face on a web page

Nested Tags

- Whenever you have HTML tags within other HTML tags, you must close the nearest tag first
- Example:
<h1><i>The Nation</i></h1>

Structure of a web page

- All web pages share a common structure
- All web pages should contain a pair of <html>, <head>, <title>, and <body> tags

```
<html>
<head>
<title>Example</title>
</head>
<body>
```

This is where you would include the text and images on your web page.

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

BASIC ELEMENTS OF HTML

- A text header, denoted using the <h1>, <h2>, <h3>, <h4>, <h5>, <h6> tags.
- A paragraph, denoted using the <p> tag.
- A horizontal ruler, denoted using the <hr> tag.
- A link, denoted using the <a> (anchor)

tags.

- A list, denoted using the (unordered list), (ordered list) and (list element) tags.
- An image, denoted using the tag
- A divider, denoted using the <div> tag
- A text span, denoted using the tag.

Essential tags

<html> </html> This basically defines the document as web page. It also identifies the beginning and end of the HTML document. All other tags must fall between the HTML tags.

Header - <head> </head> The header contains information about the document that will not appear on the actual page, such as the title of the document, the author, which styles the stylesheet to use and also meta tags.

Title - <title> </title> The title tag defines the title that will appear in the title bar of your web browser. The title must appear between the head tags.

Body - <body> </body> The body tags contain all the information and other images, links and plain text must go between the <body> and </body> tags.

Example (Explained)

The text between <html> and </html> describes the web page.

The text between <body> and </body> is the visible page content.

The text between <h1> and </h1> is displayed as a heading.

The text between <p> is displayed as a paragraph.

HTML - Heading?

HTML heading are defined with the <h1> to <h6> tags.

```
display : block;
font-size : 2cm;
```

```
margin-top : 0.67em;
margin-bottom : 0.67em;
margin-left : 0;
margin-right : 0;
font-weight : bold;
```

h2 {

```
display : block;
```

```
font-size : 1.5em;
```

```
margin-top : 0.83em;
```

```
margin-bottom : 0.83em;
```

```
margin-left : 0;
```

```
margin-right : 0;
```

```
font-weight : bold;
```

}

h3 {

```
display : block;
```

```
font-size : 1.17em;
```

```
margin-bottom : 1em;
```

```
margin-left : 0;
```

```
margin-right : 0;
```

```
font-weight : bold;
```

h4 {

```
display : block;
```

```
font-size : 1em;
margin-top : 1.33em;
margin-bottom : 1.33em;
margin-left : 0;
margin-right : 0;
font-weight : bold;
```

}

Q3. Write a program to display count from 5 to 15 using PHP loop as given below.

Ans Rules and Hint :

- you can use "for" or "while" loop
 - you can use variable to initialize count
 - you can use html tag for line break
- view solution/program

```
<?php
$count = 5;
while($count <= 15)
{
    echo $count;
    echo "2brs";

    $count++;
}
?>
```

Often when you write code, you want the same block of code to run over and over again a certain number of times. So, instead of adding several almost equal code-lines in a script, we can use loops. Loops are used to execute the same

block of code again, as long as a certain condition is true.

In PHP, we have the following loop types

a while - loops through a block of code as long as the specified condition is true.

b do... while - loops through a block of code once, and then repeats the loop as long as the specified condition is true

c for - loops through a block of code a specified number of times

d foreach - loops through a block of code for each element in an array.

The following chapters will explain and give examples of each loop type.

a) The PHP while loop: The while loop executes a block of code as long as the specified condition is true.

Syntax
while (condition is true) {

code to be executed
}

e.g The example below displays the numbers from 5 to 15

```
<?php
$x = 5;
while($x <= 15) {
    echo "The number is: $x  
<br>";
    $x++;
}
?>
```

Example Explained

- $x = 5$ initialize the loop counter (x), and set the start value to 5
- $x <= 15$ - continue the loop as long as x is less than or equal to 15
- $x++$ - Increase the loop counter value by 1 for each iteration.

b) The PHP do... while loop: The do... while loop will always execute the block of code once, it will then check the condition, and repeat the loop while the specified condition is true.

Syntax

```
do {
    code to be executed;
} while (condition is true);
```

Examples

The example below first sets a variable x to 5 ($x=5$). Then, the do while loop will write some output, and then increment the variable x with 1. Then the condition is checked (is x less than or equal to 15?), and the loop will continue to run as long as x is less than, or equal to 15.

e.g

```
<?php
$x = 5;
do {
    echo "The number is: $x  
<br>";
    $x++;
} while ($x <= 15);
?>
```

c) The PHP for loop: The for loop is used when you know in advance how many times the script should run.

Syntax

```
for (init counter; test counter;
    increment counter)
{
    code to be executed for each
    iteration;
}
```

Example

```
<?php
for ($x = 5; $x <= 15; $x++)
```

```

{
    echo "The number is : $x
    <br>";
}
?>

```

Example Explained

- $\$x = 5$; - initialize the loop counter ($\$x$), and set the start value to 5
- $\$x \leq 15$; - continue the loop as long as $\$x$ is less than or equal to 15
- $\$x++$ - increase the loop counter value by 1 for each iteration.

d) The PHP foreach loop: The foreach loop works only on arrays, and is used to loop through each key value pair in an array.

Syntax

```

foreach ($array as $value) {
    code to be executed;
}

```

for every loop iteration, the value of the current array element is assigned to $\$value$ and the array pointer is moved by one, until it reaches the last array element.

Examples

```

<?php
$colors = array("red",
"green", "blue", "yellow");
foreach ($colors as $value)
{
    echo "$value <br>";
}
?>

```

Q 4 write a program in javascript for unit conversion from kilometer (km) to centimeter (cm), use of message box is necessary.

Ans Here, we will learn how to convert the length value, which is given in kilometer, to the length in centimeter. If we want to convert the value

kilometer into cm value, then we have to use the following formula.

$$1 \text{ km} = 100000 \text{ cm} \quad \text{cm} = 100000 * \text{Kilometer}$$

```

1) #include <stdio.h>
int main()
{
    double kilometer = 4;
    double centimeter;
    centimeter = 100000 * kilometer;
    printf("value of 4 kilometer in centimeter is,
    centimeter");
    return 0;
}

```

```

2) <?php
// This is a php program which converts the
value of the kilometer into the value
of cm
$ kilometer = 10.4;
$ centimeter = 100000 * $kilometer;
echo("value of 10.4 kilometer in centi

```

```

meter is", $centimeter. "\n");
?>

```

```

3) // This is a java program which converts
The value of kilometer into the value
in cm
import java.io.*;
class convert {
    static double conversion_kilometer_to_cm (int kilometer)
    {
        double centimeter;
        centimeter = 100000 * kilometer;
        system.out.printf("value in centimeter
        is: %2f\n", centimeter);
        return 0;
    }
    public static void main (String args[])
    {
        int kilometer = 2.08457;
        conversion_kilometer_to_cm (kilome
        ter);
    }
}

```

4) # This is a python program which converts the value of kilometer into cm

```
kilometer = int(input("Enter the length in kilometer. "))
```

```
# convert kilometer to cm
```

```
centimeter = 100000 * kilometer;
```

```
print("The length in centimeter", round(centimeter, 2))
```