



KodeGo

HTML and CSS

CODE CHALLENGE



Code Challenge : HTML

Type the correct html elements in the chatbox:

1. Write “This is a comment” within an HTML comment tag.
2. A hypertext link tag Go to Google that would link to google.com
3. A tag that would display an image of apple.jpg
4. Set an image apple.jpg as a link
5. Create a table with 3 columns and 3 rows
6. Create a checkbox for the following browser option:
Firefox , Chrome, Opera, Safari, Edge, Others
7. Create input field for First Name, Middle Name, Last Name
8. Create Radio buttons for Male and Female
9. Create input text area with attributes 10 rows and 40 cols
10. Create Submit and Reset buttons



HTML and CSS Layout



Difference of Table and Div Tag

Tables	Div
Used for tabular data representation	Used for page layout and defining objects of the page.
Tag: <code><table></code> <code><tr><td></td></tr></code> <code></table></code>	Tag: <code><div></code> <code>...</code> <code></div></code>
Nested Tables can increase page size and weight	Div tags with CSS creates smaller size and weight of pages
Ease of use: Build structure is quite intuitive with attributes	Ease of use: No attributes attached. Must use style or external style sheet. Steeper learning curve.
Maintainability: Table-based layout contains more code. It can become more complex.	Maintainability: Code base is much smaller. Easier to debug and maintain.
Less flexibility with media like mobile devices, screens, printers and other media	Can be flexible with different media



Table Rowspan and Colspan Explained

Attribute of:

`<th>` table header

`<td>` table data cell

What does **colspan** do?

Allows a single table cell to span the **width** of more than one cell or column.

What does **rowspan** do?

Allows a single table cell to span the **height** of more than one cell or row.



Code Example : colspan

Using colspan for multi-column headings

```
<table width="100%" border="1">
  <caption>Life Expectancy By Current Age</caption>
  <tr>
    <th colspan="2">Age 65</th>
    <th colspan="2">Age 40</th>
    <th colspan="2">Age 20</th>
  </tr>
  <tr>
    <th>Men</th>
    <th>Women</th>
    <th>Men</th>
    <th>Women</th>
    <th>Men</th>
    <th>Women</th>
  </tr>
  <tr>
    <td>82</td>
    <td>85</td>
    <td>78</td>
    <td>82</td>
    <td>77</td>
    <td>81</td>
  </tr>
</table>
```

Age 65		Age 40		Age 20	
Men	Women	Men	Women	Men	Women
82	85	78	82	77	81



Code Example : colspan

```
<table width="100%" border="1">
  <caption>Invoice</caption>
  <tr> <th>Item / Desc.</th>
    <th>Qty.</th>
    <th>@</th>
    <th>Price</th>
  </tr>
  <tr> <td>Paperclips (Box)</td>
    <td>100</td>
    <td>1.15</td>
    <td>115.00</td>
  </tr>
  <tr> <td>Paper (Case)</td>
    <td>10</td>
    <td>45.99</td>
    <td>459.90</td>
  </tr>
  <tr> <td>Wastepaper Baskets</td>
    <td>2</td>
    <td>17.99</td>
    <td>35.98</td>
  </tr>
  <tr> <td colspan="3"><b>Subtotal</b></td>
    <td>610.88</td>
  </tr>
  <tr> <td colspan="2"><b>Tax</b></td>
    <td>7%</td>
    <td>42.76</td>
  </tr>
  <tr> <td colspan="3"><b>Total</b></td> <td>653.64</td> </tr>
</table>
```

Using colspan for single-row titling

Item / Desc.	Qty.	@	Price
Paperclips (Box)	100	1.15	115.00
Paper (Case)	10	45.99	459.90
Wastepaper Baskets	2	17.99	35.98
Subtotal			610.88
Tax		7%	42.76
Total			653.64



Code Example : rowspan

```
<table width="100%" border="1">
  <caption>Favorite and Least Favorite Things</caption>
  <tr><th></th></tr>
  <tr>
    <th></th>
    <th>Bob</th>
    <th>Alice</th>
  </tr>
  <tr>
    <th rowspan="2">Favorite</th>
    <th>Color</th>
    <td>Blue</td>
    <td>Purple</td>
  </tr>
  <tr>
    <th>Flavor</th>
    <td>Banana</td>
    <td>Chocolate</td>
  </tr>
  <tr>
    <th rowspan="2">Least Favorite</th>
    <th>Color</th>
    <td>Yellow</td>
    <td>Pink</td>
  </tr>
  <tr>
    <th>Flavor</th>
    <td>Mint</td>
    <td>Walnut</td>
  </tr>
</table>
```

Favorite and Least Favorite Things

		Bob	Alice
Favorite	Color	Blue	Purple
	Flavor	Banana	Chocolate
Least Favorite	Color	Yellow	Pink
	Flavor	Mint	Walnut



Activity: Table rowspan and colspan

Filename: students.html

Output: Tabular data of students and their grades.

Student		Exam				2nd Exam				Final Grade	
		Q1	Q2	Q3	Grade	Q1	Q2	Q3	Grade		
Code	Name	8	7	5			6	7		7	
80549061	John	70%	100%	100%	17.6					17.6	18
80549062	Mary	10%	50%	50%	6.8	100%	100%	50%	16.5	16.5	17
80549063	Claire					50%	50%	50%	10.0	10.0	10

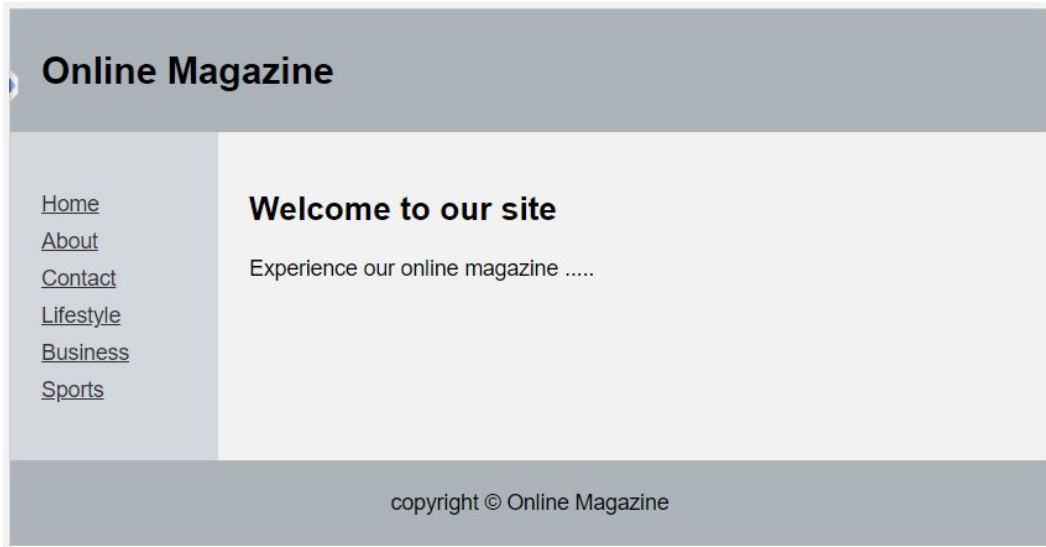


HTML Div Based Layout

What does **<div>** HTML tag do?

Defines an arbitrary **block of content** which can be placed and styled as a single unit.
Better web page layouts can be created by using the DIV elements and CSS.

Sample Div Based Layout



HTML4: Lots of Classes/IDs

The diagram shows a page layout for HTML4. It consists of a green header bar labeled `<div id="header">`. Below it is a red sidebar labeled `<div id="sidebar">`. To the right of the sidebar is a yellow content area labeled `<div id="content">`. Inside the content area are three grey boxes, each labeled `<div class="post">`. At the bottom is a purple footer bar labeled `<div id="footer">`.

HTML5: Semantic Tags/Sections

The diagram shows a page layout for HTML5. It consists of a green header bar labeled `<header>`. Below it is a red sidebar labeled `<nav>`. To the right of the sidebar is a yellow main area labeled `<main>`. Inside the main area are three grey boxes, each labeled `<article>`. At the bottom is a purple footer bar labeled `<footer>`.

Code Example : <div> with CSS

Div Based Layout with Internal CSS

<!-- Internal CSS Used -->

<style>

```
body {
  font: 14px Arial,sans-serif;
  margin: 0px;
}
.header {
  padding: 10px 20px;
  background: #acb3b9;
}
.header h1 {
  font-size: 24px;
}
.container {
  width: 100%;
  background: #f2f2f2;
}
```

<!-- cont. Internal CSS used -->

```
.nav, .section {
  float: left;
  padding: 20px;
  min-height: 170px;
  box-sizing: border-box;
}
.nav {
  width: 20%;
  background: #d4d7dc;
}
.nav ul {
  list-style: none;
  line-height: 24px;
  padding: 0px;
}
.nav ul li a {
  color: #333;
}
```

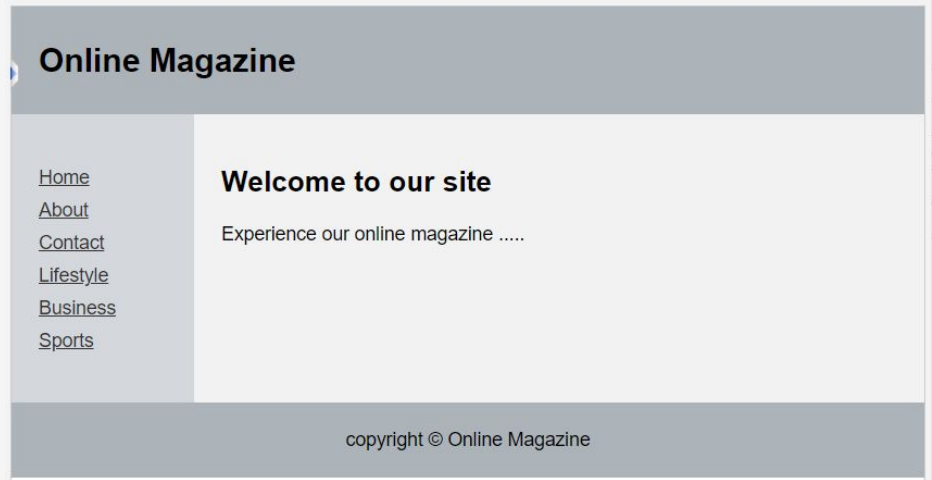
<!-- cont. Internal CSS used -->

```
.section {
  width: 80%;
}
.clearfix:after {
  content: ".";
  display: block;
  height: 0;
  clear: both;
  visibility: hidden;
}
.footer {
  background: #acb3b9;
  text-align: center;
  padding: 5px;
}
</style>
```



Code Example : <div> with CSS

```
<body>
  <div class="container">
    <!-- Header -->
    <div class="header">
      <h1> Online Magazine</h1>
    </div>
    <!-- Content -->
    <div class="wrapper clearfix">
      <!-- Navigation -->
      <div class="nav">
        <ul>
          <li><a href="#">Home</a></li>
          <li><a href="#">About</a></li>
          <li><a href="#">Contact</a></li>
          <li><a href="#">Lifestyle</a></li>
          <li><a href="#">Business</a></li>
          <li><a href="#">Sports</a></li>
        </ul>
      </div>
      <!-- Main Section -->
      <div class="section">
        <h2>Welcome to our site</h2>
        <p>Experience our online magazine .....</p>
      </div>
    </div>
    <!-- Footer -->
    <div class="footer">
      <p>copyright &copy; Online Magazine</p>
    </div>
  </div>
</body>
</html>
```

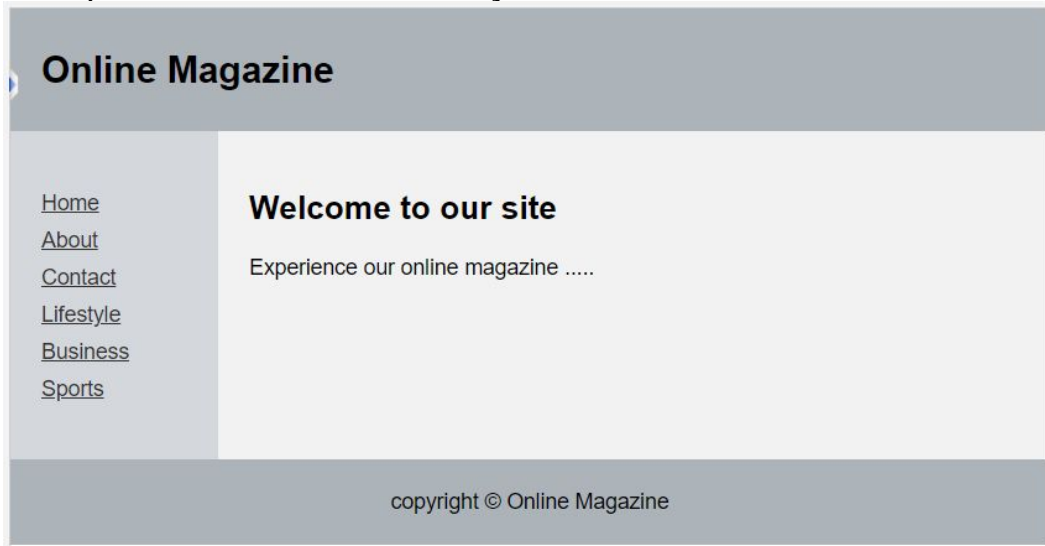


HTML5 Structural Layout

Layout using structural elements such as **<header>**, **<footer>**, **<nav>**, **<section>**, etc. to define the different parts of a web page in a more **semantic** way.

Consider these elements as a replacement for commonly used classes such as .header, .footer, .nav, .section.

Sample HTML5 Structural Layout



Code Example : HTML 5 Structural Layout

```
<!-- Internal CSS Used -->
<!DOCTYPE html>
<html>
<head>
<style>
  body {
    font: 14px Arial,sans-serif;
    margin: 0px;
  }

  header {
    padding: 10px 20px;
    background: #acb3b9;
  }
  header h1 {
    font-size: 24px;
  }
  .container {
    width: 100%;
    background: #f2f2f2;
  }
}
```

```
<!-- cont. Internal CSS used -->
nav, section {
  float: left;
  padding: 20px;
  min-height: 170px;
  box-sizing: border-box;
}

nav {
  width: 20%;
  background: #d4d7dc;
}

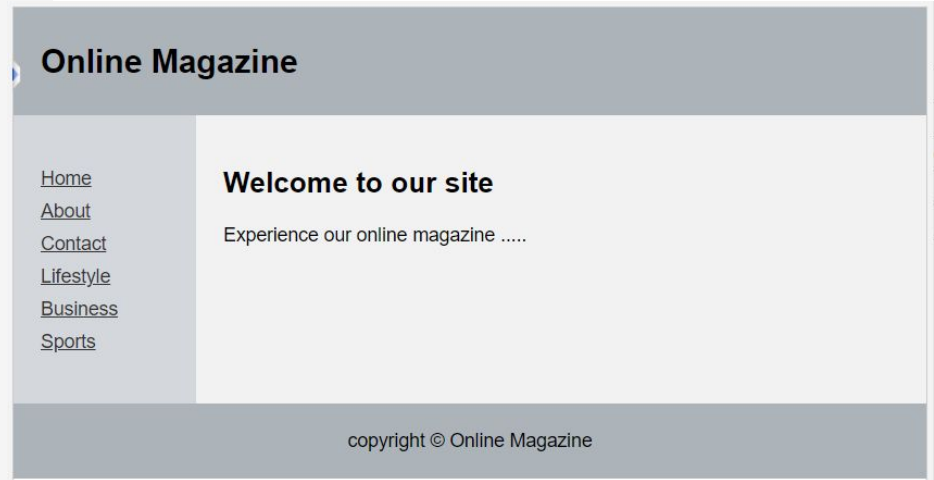
nav ul {
  list-style: none;
  line-height: 24px;
  padding: 0px;
}
nav ul li a {
  color: #333;
}
```

```
<!-- cont. Internal CSS used -->
section {
  width: 80%;
}
.clearfix:after {
  content: ".";
  display: block;
  height: 0;
  clear: both;
  visibility: hidden;
}
footer {
  background: #acb3b9;
  text-align: center;
  padding: 5px;
}
</style>
</head>
```



Code Example : HTML 5 Structural Layout

```
<body>
  <div class="container">
    <!-- Header -->
    <header>
      <h1> Online Magazine</h1>
    </header>
    <!-- Content -->
    <div class="wrapper clearfix">
      <!-- Navigation -->
      <nav>
        <ul>
          <li><a href="#">Home</a></li>
          <li><a href="#">About</a></li>
          <li><a href="#">Contact</a></li>
          <li><a href="#">Lifestyle</a></li>
          <li><a href="#">Business</a></li>
          <li><a href="#">Sports</a></li>
        </ul>
      </nav>
      <!-- Main Section -->
      <section>
        <h2>Welcome to our site</h2>
        <p>Experience our online magazine .....</p>
      </section>
    </div>
    <!-- Footer -->
    <footer>
      <p>copyright &copy; Online Magazine</p>
    </footer>
  </div>
</body>
</html>
```



Combining Table and Div Layout

Divs and Tables layout can work together in a single html page.

Sample Table and Div layout.

Name of Male Participants			
First Name	Middle Name	Last Name	Age
Juan	Santos	Dela Cruz	20
Jose	Salazar	Reyes	25
Luis	Rizal	Bonifacio	21

Name of Female Participants			
First Name	Middle Name	Last Name	Age
Eva	Roa	Luna	23
Lulu	Sy	Tang	18
Lena	Aquino	Santos	30



Code Example : Table and Div Layout

<!-- Internal CSS Used -->

<!DOCTYPE html>

<html>

<head>

<style>

```
* {  
  box-sizing: border-box;  
}
```

```
.row {  
  margin-left: -5px;  
  margin-right: -5px;  
}
```

```
.column {  
  float: left;  
  width: 50%;  
  padding: 5px;  
}
```

```
/* Clearfix (clear floats) */  
.row::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

<!-- cont. Internal CSS used -->

```
table {  
  border-collapse: collapse;  
  border-spacing: 0;  
  width: 100%;  
  border: 1px solid #ddd;  
}
```

```
th, td {  
  text-align: left;  
  padding: 16px;  
}
```

```
tr:nth-child(even) {  
  background-color: #f2f2f2;  
}
```

</style>

</head>



Code Example : Table and Div Layout

```
<!-- cont. body content -->
```

```
<body>
<div class="row">
  <div class="column">
    <table>
      <tr>
        <th colspan="4"
style="text-align:center;color:blue">Name of Male
Participants</th>
      </tr>
      <tr>
        <th>First Name</th>
        <th>Middle Name</th>
        <th>Last Name</th>
        <th>Age</th>
      </tr>
      <tr>
        <td>Juan</td>
        <td>Santos</td>
        <td>Dela Cruz</td>
        <td>20</td>
      </tr>
      <tr>
        <td>Jose</td>
        <td>Salazar</td>
        <td>Reyes</td>
        <td>25</td>
      </tr>
```

```
<!-- cont. body content -->
```

```
<tr>
  <td>Luis</td>
  <td>Rizal</td>
  <td>Bonifacio</td>
  <td>21</td>
</tr>
</table>
</div>

<div class="column">
  <table>
    <tr>
      <th colspan="4"
style="text-align:center;color:blue">Name of Female
Participants</th>
    </tr>
    <tr>
      <th>First Name</th>
      <th>Middle Name</th>
      <th>Last Name</th>
      <th>Age</th>
    </tr>
    <tr>
      <td>Eva</td>
      <td>Roa</td>
      <td>Luna</td>
      <td>23</td>
    </tr>
```

```
<!-- cont. body content -->
```

```
<tr>
  <td>Lulu</td>
  <td>Sy</td>
  <td>Tang</td>
  <td>18</td>
</tr>
<tr>
  <td>Lena</td>
  <td>Aquino</td>
  <td>Santos</td>
  <td>30</td>
</tr>
</table>
</div>
</div>

</body>
</html>
```



HTML Reference

<https://www.w3schools.com/html/default.asp>

<https://developer.mozilla.org/en-US/docs/Learn/HTML>



THANK YOU!



KodeGo