Position

- The CSS positioning properties allow you to position an element.
- It can also place an element behind another, and specify what should happen when an element's content is too big.
- Elements can be positioned using the top, bottom, left, and right properties. However, these properties will not work unless the position property is set first. They also work differently depending on the positioning method.
- There are four different positioning methods.
 - static(default)
 - 2. fixed
 - 3. relative
 - 4. absolute

Static Positioning

- HTML elements are positioned static by default. A static positioned element is always positioned according to the normal flow of the page.
- Static positioned elements are not affected by the top, bottom, left, and right properties.

Fixed Positioning

- An element with fixed position is positioned relative to the browser window.
- It will not move even if the window is scrolled:

```
p.pos_fixed
{
position:fixed;
top:30px;
right:5px;
}
```

- **Note:** IE7 and IE8 support the fixed value only if a !DOCTYPE is specified.
- Fixed positioned elements are removed from the normal flow. The document and other elements behave like the fixed positioned element does not exist.
- Fixed positioned elements can overlap other elements.

Relative Positioning

A relative positioned element is positioned relative to its normal position.

```
h2.pos_left
{
position:relative;
left:-20px;
}
```

• The content of relatively positioned elements can be moved and overlap other elements, but the reserved space for the element is still preserved in the normal flow.

```
h2.pos_top
{
position:relative;
top:-50px;
}
```

 Relatively positioned elements are often used as container blocks for absolutely positioned elements.

Absolute Positioning

• An absolute position element is positioned relative to the first parent element that has a position other than static. If no such element is found, the containing block is https://example.com/html.

```
h2
{
position:absolute;
left:100px;
top:150px;
}
```

- Absolutely positioned elements are removed from the normal flow. The document and other elements behave like the absolutely positioned element does not exist.
- Absolutely positioned elements can overlap other elements.

Overlapping Elements

- When elements are positioned outside the normal flow, they can overlap other elements.
- The z-index property specifies the stack order of an element (which element should be placed in front of, or behind, the others).
- An element can have a positive or negative stack order:

```
img
{
position:absolute;
z-index:-1
}
```

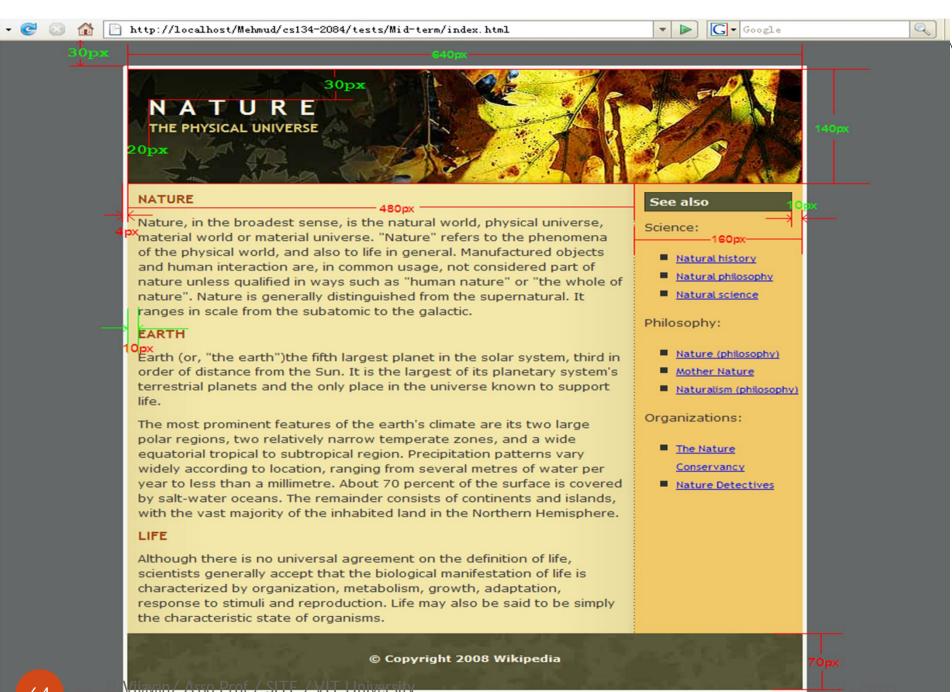
- An element with greater stack order is always in front of an element with a lower stack order.
- **Note:** If two positioned elements overlap, without a z-index specified, the element positioned last in the HTML code will be shown on top

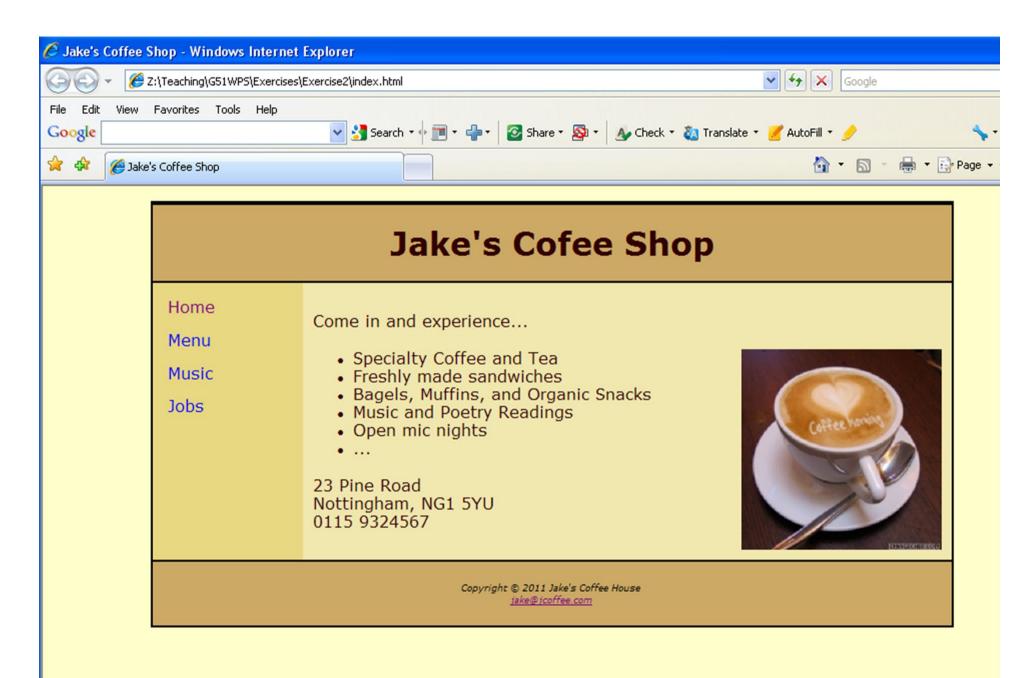
HTML Tag

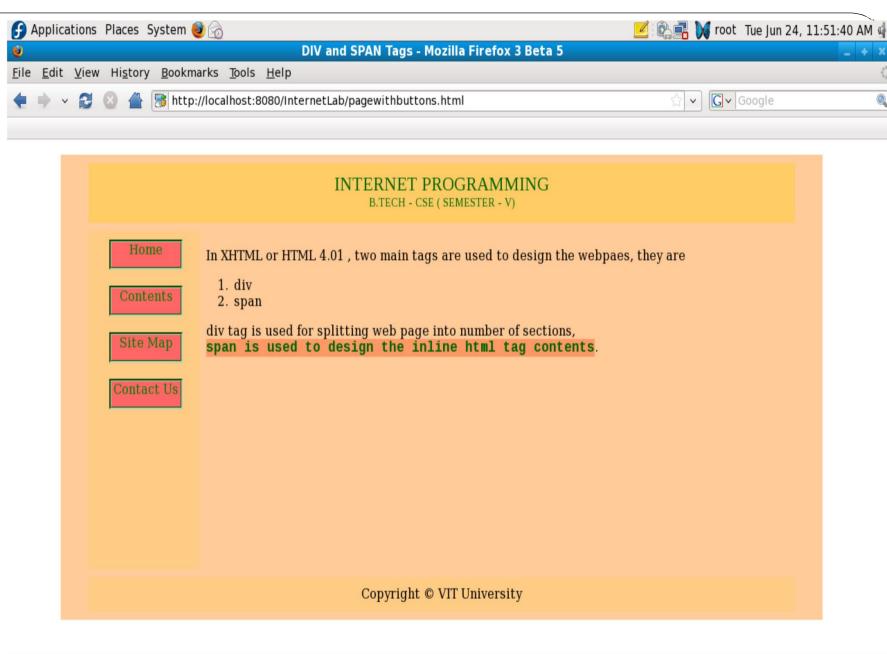
- The tag is used to group inline-elements in a document.
- The tag provides no visual change by itself.
- The tag provides a way to add a hook to a part of a text or a part of a document.
- When the text is hooked in a element you can add styles to the content, or manipulate the content with for example JavaScript.
- My mother has light blue eyes and my father has dark green eyes.

Reproduce the following webpage using <div> tag and CSS positioning instead of tag. Border color of top division is blue ,left division is red and right division is green. All the divisions' background color is yellow.









66

Ellensburg Food Coop

Home Shop



Shop Online

Current Inventory

	Member	Non-Member
Apples	\$1.00	\$ 1.50
Oranges	\$2.00	\$2.50
Rice	\$0.99	\$1.99
Beans	\$2.75	\$ 3.75

Web design by Full_Name_1 and Full_Name_2

max-width

- improve the browser's handling of small windows.
- This is important when making a site usable on small devices

```
div.ex2 {
    max-width:500px;
    margin: auto;
    border: 3px solid #73AD21;
}
```

CSS - outline

- The CSS outline properties specify the *style, color, and width* of an outline.
- An outline is a line that is drawn around elements (outside the borders) to make the element "stand out".
- outline-style : dotted, dashed , solid
- outline-color
- outline-width: in px,em,cm,pt, thin, medium, or thick.
- Shorthand
 - outline: outline-width outline-style (required) outline-color

The display Property

- The display property specifies if/how an element is displayed.
- Every HTML element has a default display value depending on what type of element it is. The display value for most elements is **block**, **inline and none**.
 - block-> A block-level element always starts on a new line and takes up the full width available
 - inline->does not start on a new line and only takes up as much width as necessary.
 - none->to hide and show elements without deleting and recreating them

```
<head>
<style>
li {
     display: inline;}
span { display: block;}
h1.hidden{display:none;}
p{visibility:hidden;}
</style>
</head>
<body>
<h1 class="hidden">This is a hidden heading</h1>
Display a list of links as a horizontal menu:
\langle ul \rangle
 <a href="/html/default.asp" target="_blank">HTML</a>
<span>A display property with a value of "block" results in<span> a line break
between the two elements.</span></body>
</html>
```

Grouping Selectors

```
h1
color:green;
h2
color:green;
color:green;
```

- To minimize the code, you can group selectors.
- Separate each selector with a comma.

```
h1,h2,p
{
color:green;
}
```

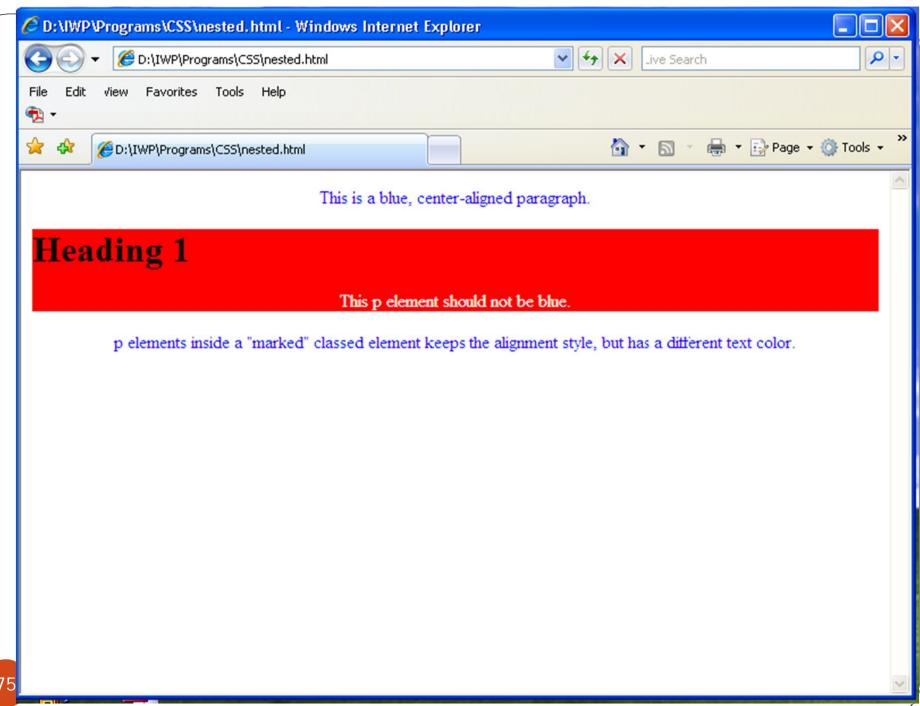
Nesting Selectors

• It is possible to apply a style for a selector within a selector.

```
→ style is specified for all p elements
color:blue;
text-align:center;
.marked → style is specified for all elements with class="marked"
background-color:red;
class="marked"
color:white;
```

```
<html> <head>
<style type="text/css">
       color:blue;
       text-align:center;
.marked
       background-color:red;
.marked p
color:white;
</style> </head>
```

```
<body>
This is a blue, center-aligned
 paragraph.
<div class="marked">
<h1> Heading 1 </h1>
This p element should not be
 blue.
</div>
p elements inside a "marked"
 classed element keeps the
 alignment style, but has a
 different text color. 
</body>
</html>
```



imagemap

- An image-map, with clickable areas
- The <map> tag is used to define a client-side image-map. An image-map is an image with clickable areas.
- The required name attribute of the <map> element is associated with the 's usemap attribute and creates a relationship between the image and the map.
- The <map> element contains a number of <area> elements, that defines the clickable areas in the image map.

<area>

• defines an area inside an image-map (an image-map is an image with clickable areas).

Attribute	Value	Description	
alt	text	Specifies an alternate text for the area. Required if the href attribute is present	
coords	coordinates	Specifies the coordinates of the area	
href	URL	Specifies the hyperlink target for the area	
nohref	value	Not supported in HTML5. Specifies that an area has no associated link	
<u>shape</u>	default rect circle poly	Specifies the shape of the area	
<u>target</u>	_blank _parent _self _top framename	Specifies where to open the target URL	

```
<img src="planets.gif" width="145" height="126"
alt="Planets" usemap="#planetmap">
<map name="planetmap">
 <area shape="rect" coords="0,0,82,126" alt="Sun"
href="sun.htm">
 <area shape="circle" coords="90,58,3" alt="Mercury"
href="mercur.htm">
 <area shape="circle" coords="124,58,8" alt="Venus"</pre>
href="venus.htm">
</map>
```

overflow

 specifies whether to clip content or to add scrollbars when the content of an element is too big to fit in a specified area

overflow:visible | hidden | scroll | auto

- visible Default. The overflow is not clipped. It renders outside the element's box
- hidden The overflow is clipped, and the rest of the content will be invisible
- scroll The overflow is clipped, but a scrollbar is added to see the rest of the content
- auto If overflow is clipped, a scrollbar should be added to see the rest of the content

float and clear

float

- be used to wrap text around images.
- The following example specifies that an image should float to the right in a text:

```
img {
    float: right;
    margin: 0 0 10px 10px;
}
```

Clear

- used to control the behavior of floating elements.
- specifies on which sides of an element floating elements are not allowed to float:

```
clear: left | right
```

Navigation Bars

Home

News

Contact

About

```
Home News Contact About

Home News Contact About
```

```
margin: 0; }
body {
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
  width: 25%:
  background-color: #f1f1f1;
  position: fixed;
  height: 100%;
  overflow: auto;
li a {
  display: block;
  color: #000;
  padding: 8px 16px;
  text-decoration: none;
li a.active {
  background-color: #4CAF50;
  color: white;}
```

```
li a:hover:not(.active) {
 background-color: #555;
 color: white:
</style>
</head>
<body>
ul>
 <a class="active"</li>
href="#home">Home</a>
 <li><a href="#news">News</a>
 < a href="#contact">Contact</a>
 <a href="#about">About</a>
```

Navigation Bars



```
Home News Contact About

Home News Contact About
```

```
margin: 0; }
body {
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
  width: 25%:
  background-color: #f1f1f1;
  position: fixed;
  height: 100%;
  overflow: auto;
li a {
  display: block;
  color: #000;
  padding: 8px 16px;
  text-decoration: none;
li a.active {
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 <li><a href="#news">News</a>
 < a href="#contact">Contact</a>
 <a href="#about">About</a>
```

text-shadow

- adds shadow to text
- text-shadow: *h-shadow v-shadow blur-radius color* none

```
h1 {
    text-shadow: 2px 2px 8px #FF0000;
}
h1 {
    text-shadow: 0 0 3px #FF0000, 0 0 5px #0000FF;
}
```

box-shadow

- attaches one or more shadows to an element.
- box-shadow: none | h-shadow v-shadow blur spread color div {
 box-shadow: 10px 10px grey;
 }
 div.card {
 width: 250px;
 box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0
 6px 20px 0 rgba(0, 0, 0, 0.19);
 text-align: center;

Responsive web design with viewport

- The viewport is the user's visible area of a web page.
- The viewport varies with the device, and will be smaller on a mobile phone than on a computer screen

<meta name="viewport" content="width=device-width, initial-scale=1.0">

- This gives the browser instructions on how to control the page's dimensions and scaling.
- The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).
- The **initial-scale=1.0** part sets the initial zoom level when the page is first loaded by the browser.

What is a Media Query?

- Media query is a CSS technique introduced in CSS3.
- It uses the @media rule to include a block of CSS properties only if a certain condition is true.
- Example
- If the browser window is 600px or smaller, the background color will be lightblue:

```
@media only screen and (max-width: 600px) {
  body {
   background-color: lightblue;
  }
}
```

```
<!DOCTYPE html>
<html><head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
body {
background-color: lightgreen;
@media only screen and (max-width: 600px) {
body {
  background-color: lightblue;
}}</style></head><body>
Resize the browser window. When the width of this document is 600 pixels or less, the
background-color is "lightblue", otherwise it is "lightgreen".
</body>
</html>
```