INTRODUCTION TO CSS

Pre-Requisite Of this tutorial is INTRODUCTION TO HTML you can find that course on computerscience.pk

These lecture notes are in continuity of Video Lecture series presented at ComputerScience.pk It will help you to learn CSS.

LECTURE 02

In this lecture we will get introduced with how to style the web pages to make them eye-catching and more organized.

2. Introduction

CSS stands for **C**ascading **S**tyle **S**heets. CSS is effectively the clothing that we put on a web page. CSS is an tremendous addition to plain HTML. With plain HTML you define the colors and sizes of text and tables throughout your pages. If you want to change a specific element you will have to change the entire document.
With CSS we define the colors and sizes in "styles". Then as you write your web pages you refer to the styles. In short we can say that we use CSS to control the style and layout of multiple Web pages all at once.

Before you continue you should have a basic understanding of HTML. If you want to study HTML, find the tutorial on our www.computerscience.pk.

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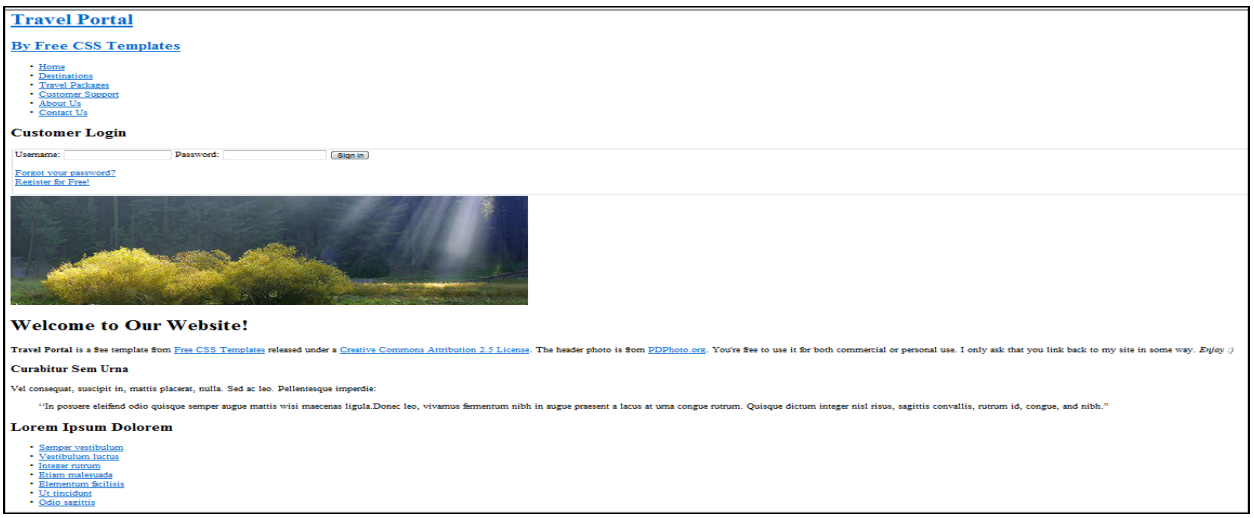
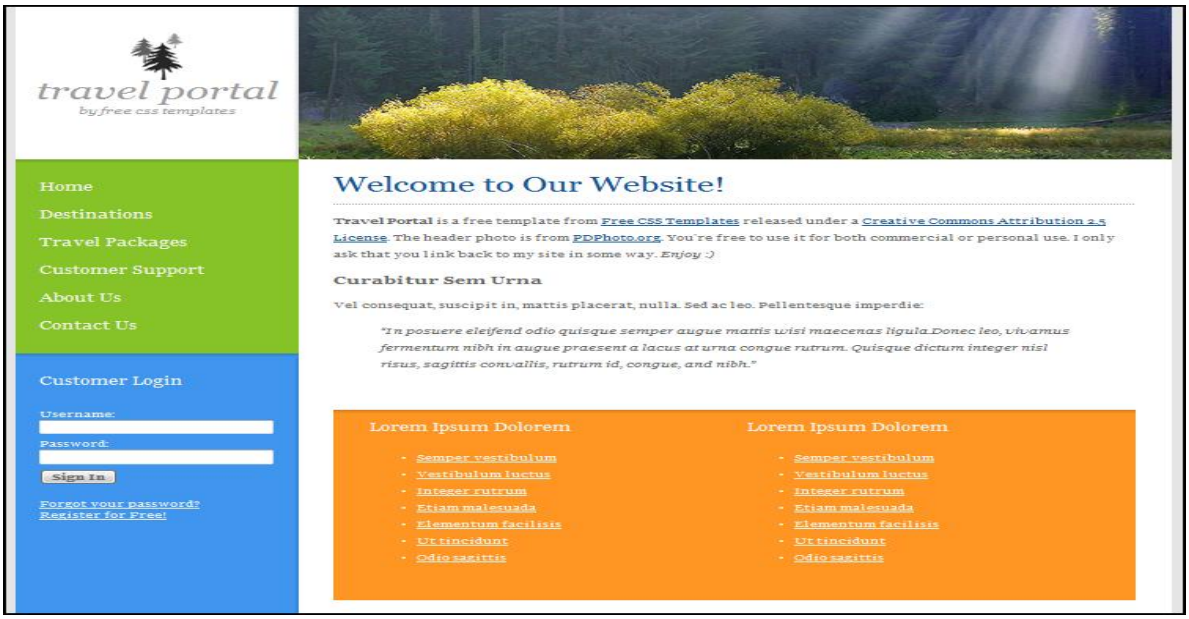
Let us show you how CSS works!



Simple Web page before applying CSS



Simple Web page after applying CSS

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2.1 How to define styles?

Styling information for a web page can be defined in three ways

- Inline
- Embedded (page-level style)
- CSS (external style-sheet)

2.2 Inline style

As already mentioned, that every HTML tag possesses some attributes. In case of Inline way of styling, we apply the style using the attribute right inside the elements of your HTML code, and this method of styling is referred to as *inline CSS* .This attribute specifies style information for the current element only.

Below is the general form for setting inline CSS in any HTML element.

Pseudo Code

```
<htmltag style="attribute: value ; attribute : value;"></htmltag>
```

Task: Open Notepad (Go to start menu click at run and type Notepad++)

Explanatory Note: To add inline styling to a web site we can use any Text editor in this case we are using notepad ++. For this course we will use notepad.

1. **Task:** Write following line of code into text editor.

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Lets add some Inline CSS styling to our html file

```
<html>
<head>
</head>
<body>
<h1>Paragraph With Inline Style</h1>
<p style="background-color:blue;color:white;width:500px">
This is paragraph tag ?ith background color and foreground color text.
This is one way to apply style on html tag. This is called inline style.
we gave the styling information within the tag.
</p>
</body>
</html>
```

In this code styling information is given within the tag. Inline styling has the highest priority out of any method of styling. This styling detracts from the true aim of using CSS, so we use it rarely.

To use Inline styling we use style attribute defined inside the tag of the element which is to be styled.

For example, To apply background effect to a paragraph we have used the style attribute of the tag p. This tag is for the paragraph element.

2. **Task :** Now Save html file (Press ctrl+s) . Type any name for the file and don't forget to change the extension from .txt to html or htm. Also choose All File option from bottom **[important]**.

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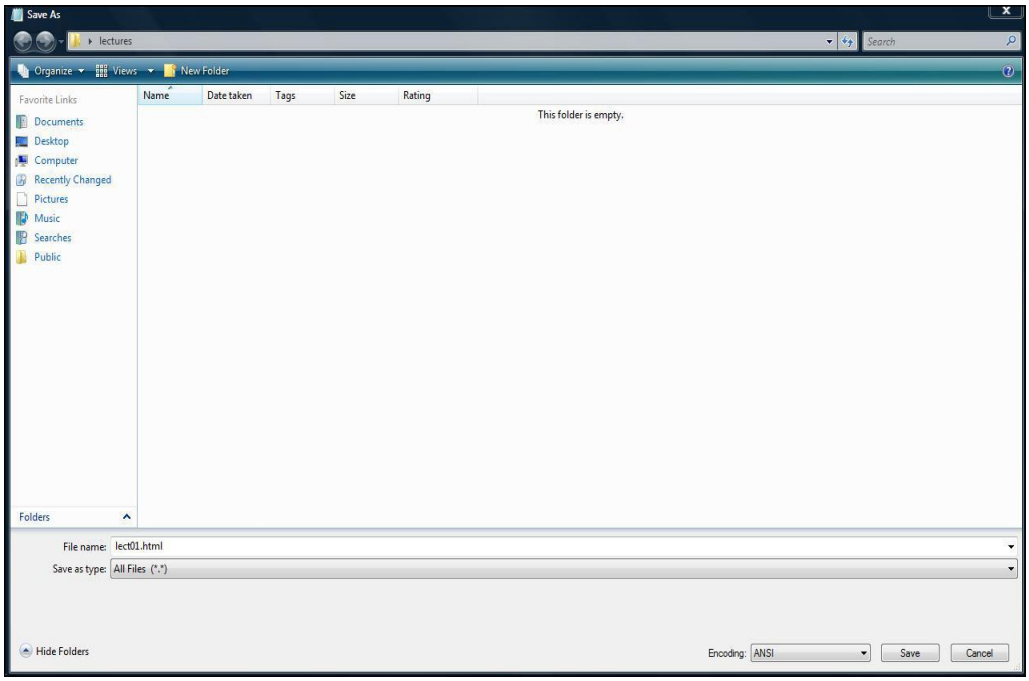
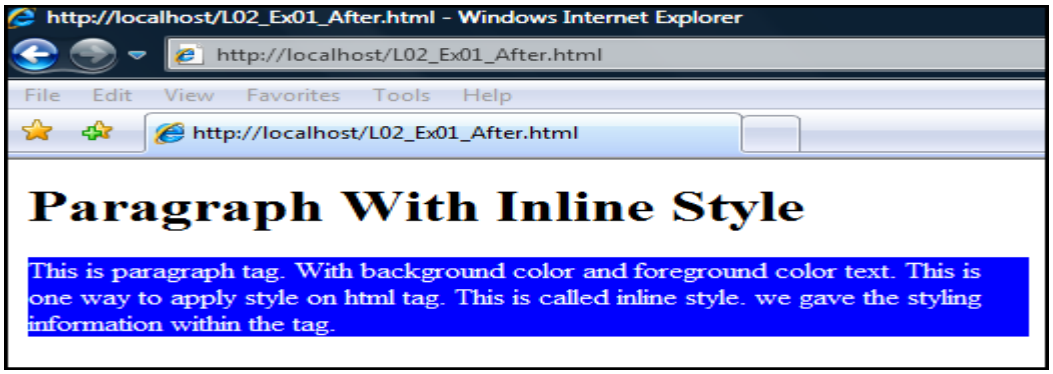


Choose a file name and file type

3. Open the file in any web browser by double clicking on it and the output will be:



2.3 Embedded styling

Embedded style is fairly an intermediary between inline styles and an external style sheet. An internal style sheet should be used when a single document has a unique style. The style element requires both start and end tags <style>**...**</style> which are inserted between the <head>**...**</head> tags of your html file. The type attribute of the style tag defines the type of style sheet being used so we'll put text/css as the value.

Below is the general form for setting embedded CSS in any HTML element.

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Pseudo Code

```
<style type="text/css"> htmltag{attribute: value;}</style>
```

Explanatory Note: To add embedded styling to a web site we can use any Text editor. For this course we will use Notepad++.

1. **Task:** Write following line of code into text editor.

Add This code to your html file

```
<html>
<head>
<style type="text/css">
p
{
background-color: blue;
color:white;
widht:500px;
}
</style>
</head>
<body>
<h1>First Paragraph With Page LEvel Style</h1>
<p>This is paragraph tag. With background color and foreground color text.
This is 2nd way to apply style on html tag.
This is called page level style. we gave the styling information at page level </p>
<h1>Second Paragraph  With Page Level Style</h1>
<p>This is paragraph tag. With background color and foreground color text.
This is 2nd way to apply style on html tag. This is called page level style.
we gave the styling information at page level </p>
</body>
</html>
```

In this code styling information is given within the tag. Embedded styles are styles that are embedded in the head of the document. Embedded styles affect only the tags on the page they are embedded in.

Styling information is same as we add it into inline style. End result is same only difference is definition of style you will get more on it in next lecture.

2. Task: Now Save html file (Press ctrl+s) .

3. Task: Open the file in any web browser by double clicking on it and the output will be:

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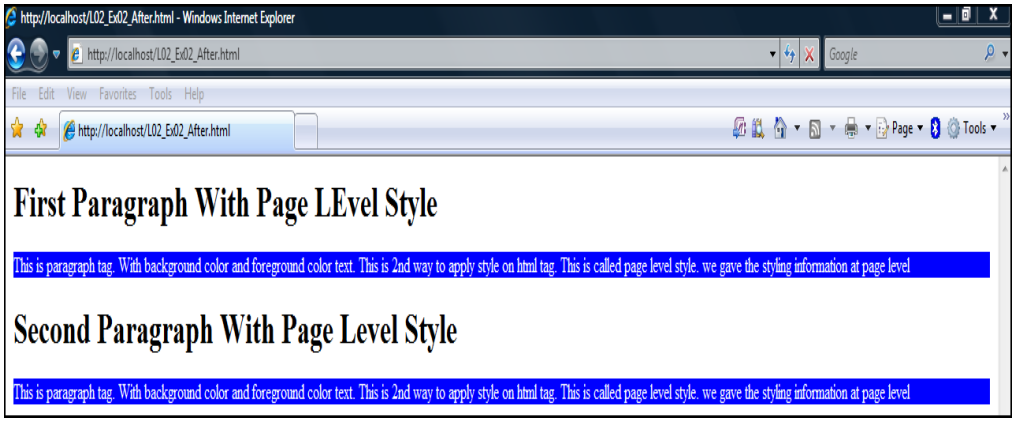

2.4 External styling

Using external style sheets is the definitive web designer tool in that it allows you to apply formatting to many different web pages at once with a single .css file.An external style sheet is simply a text file containing a list of CSS rules sets. The file is saved with a .css extension and saved to any directory that can be accessed by the web pages using it.

Below is the general form for setting External CSS in any HTML element.

Pseudo Code

```
Selector {attribute: value;}
```

Explanatory Note: To add external styling to a web site we can use any Text editor. For this course we will use notepad++.

We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

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Add This code to your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L02_Ex03.css"/>
</head><body>
<h1>First Paragraph Getting Style Information From CSS</h1>
<p>This is paragraph tag. With background color and
foreground color text. This is 2nd way to apply style
on html tag. This is called page level style.</p>
<h1>Second Paragraph  Getting Style Information  From CSS</h1>
<p>This is paragraph tag. With background color and
foreground color text. This is 2nd way to apply style
on html tag. This is called page level style.</p>
</body></html>
```

In this code one line of code is included in the head tag of HTML. No other changes are required to link the external styling to our web page. Link tag with three attributes **rel type** and **href** are used to include an external styling to our web page.
Value of href is equal to name of the file containing our styling whose extension is .css .

2. **Task:** Write following lines of code into separate file.

Add this code to your .css file

```
p
{
background-color:blue;
color:white;
width:500px;
}
```

In this code styling information for the p tag is typed in our .css file.
As a result all the p tags of the web page referenced to this .css sheet will style their p tags according to this formatting.

3. Task: Now Save css file (Press ctrl+s).While creating a style-sheet, Just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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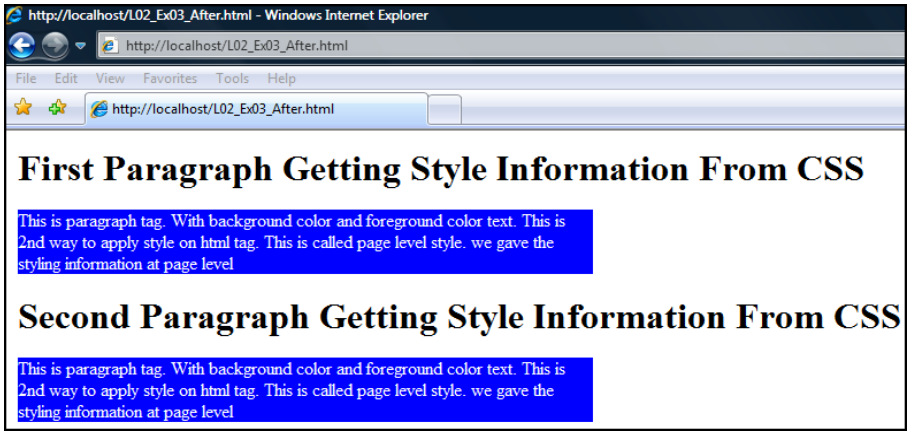

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Lecture 03

In this lecture we will get knowledge regarding different types of selectors and the precedence of these selectors.

In addition to setting a style for a HTML element, CSS allows you to specify your own selectors called “Tag”, "id" and "class".

3.1 Tag Selector

Styling information applied using a default tag of HTML is called a tag selector. The tag selector is used to redefine existing HTML tags. Select this option if you want to change the formatting options for an HTML tag, such as the H1 (heading 1) tag or the UL (unordered list) tag.

If we define css style for a tag then this style will be applied for all appearances of that tag in our html file. For example if we add style for tag p then all <p> that occur in html file will have that style.

Note: Html tag is called also selector while Attribute-value pair is called declaration.

We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file

```
<html><head><link rel="stylesheet" type="text/css" href="L03_Ex01_After.css"/>
</head><body>
<h1>First Paragraph </h1><p>Cascading Style Sheets (CSS) is a style sheet
language used to describe the presentation semantics (the look and formatting)
of a document written in a markup language. Its most common application is to
style web pages written in HTML and XHTML.</p>
<h1>Second Paragraph </h1>
<p>CSS is designed primarily to enable the separation of document content (written
in HTML or a similar markup language) from document presentation, including elements
such as the layout, colors, and fonts.[citation needed] This separation can improve
content accessibility, provide more flexibility.
</p>
<h1>Third Paragraph</h1>
<p>
CSS can also allow the same markup page to be presented in different styles for different
rendering methods, such as on-screen, in print, by voice (when read out by a speech-based
browser or screen reader) and on Braille-based, tactile devices.
</p></body></html>
```

In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet. In this code we have used three p tags to display three paragraphs in our web page. Now in our .CSS file we will straightly use name of paragraph tag to apply formatting on all three paragraphs at once.

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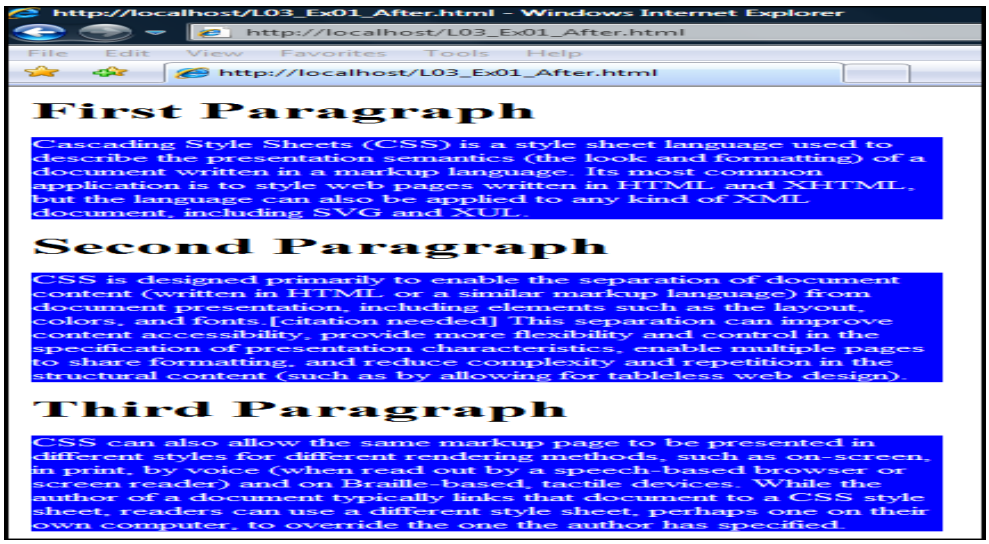
Task: Write following lines of code into a separate file.

Add this code to your .css file	In this styling information is typed in our .css file. When you use the tag selector; the style definition is automatically applied to any text or other element that has been formatted with the corresponding tag. Thus, if you've formatted a paragraph with the p tag and then create an p style it will automatically apply to the paragraph.

```
p
{
background-color:blue;
color:white;
width:500px;
}
```

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:



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3.2 ID Selectors

ID selectors initiate such rules in embedded or external style sheets that focus individual HTML elements. To apply different styling to an Html tag we need to assign a unique name to that element. The id selector uses the id attribute of the HTML element, and is defined with a "#". ID is assigned to an element in the html file while this id is used in .css file to assign styling to the element.

IDs allow you to get very specific about which elements your styles are applied to. This is basically a subject of staying organized and can also help a lot once you start creating more complex CSS selectors.

We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L03_Ex02_After.css"/></head>
<body>
<h1>First Paragraph </h1>
<p id="p1">Cascading Style Sheets (CSS) is a style sheet language used to
describe the presentation semantics (the look and formatting) of a document
written in a markup language.</p>
<h1>Second Paragraph </h1>
<p id="p2">
CSS is designed primarily to enable the separation of document content
written in HTML or a similar markup language) from document presentation,
including elements such as the layout, colors, and fonts.[citation needed].
</p>
<h1>Third Paragraph</h1>
<p>
CSS can also allow the same markup page to be presented in different styles for
different rendering methods, such as on-screen, in print, by voice (when read out
 by a speech-based browser or screen reader) and on Braille-based, tactile devices.
</p></body></html>
```

In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet. In this code we have used three p tags to display three paragraphs in our web page. In addition to this we have used ID attribute of p tag to assign unique value to the two p tags separately.

2. **Task:** Write following lines of code into a separate file.

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Add this code to your .css file	In this code styling information is typed in our .css file. Now in our .CSS file we have straightly used id value of paragraph tags to apply formatting on the two paragraphs separately.

```
p
{
background-color:blue;
color:white;
width:400px;
}
#p1
{
background-color:green;
color:white;
width:400px;
}
#p2
{
background-color:red;
color:white;
width:400px;
}
```

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

Explanatory Note: So resultantly we have used id selector and applied different formatting or styling on same type of HTML tag. This is p tag in current example.

3.3 Class Selectors

A CSS class selector will allow you to put one or more style declarations into a group and give it any name you like so that you can apply it to specific web page components.

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This allows you to set a particular style for any HTML elements with the same class. The syntax you use is simply a "." followed by any name you like . class is assigned to an element in the html file while this class name is used in .css file to assign styling to group of elements.

We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L03_Ex03_After.css"/>
</head><body>
<h1>First Paragraph </h1> <p class="para1">Cascading Style Sheets (CSS)
is a style sheet language used to describe the presentation semantics
of a document written in a markup language. Its most common application
is to style web pages written in HTML and XHTML.</p>
<h1>Second Paragraph </h1>
<p id="p2">
CSS is designed primarily to enable the separation of document content
(written in HTML or a similar markup language) from document presentation,
including elements such as the layout, colors, and fonts.[citation needed]
</p><h1>Third Paragraph</h1>
<p class="para1">
CSS can also allow the same markup page to be presented in different styles
for different rendering methods, such as on-screen, in print, by voice
when read out by a speech-based browser or screen reader) and on Braille-based,
tactile devices. </p></body></html>
```

In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet.
In this code we have used three p tags to display three paragraphs in our web page.
In addition to this we have used Class attribute of p tag to assign a class to the two p tags separately.
All the elements with the same class name will have same formatting.
One ID can be assigned to only one element
But one class name can be assigned to more than one elements.

3. **Task:** Write following lines of code into a separate file.

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Add this code to your .css file	In this code styling information is typed in our .css file. Now in our .CSS file we have straightly used class name of paragraph tags to apply formatting on the two paragraphs separately. Paragraphs with no class name doest have any formatting so no formatting is applied to them. As there is no tag selector is used as well.

```
p
{
background-color:blue;
color:white;
width:400px;
}
.pra1
{
background-color:green;
color:white;
width:400px;
}
#p2
{
background-color:red;
color:white;
width:400px;
}
```

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

Note: A good practice is to name classes according to their *function* rather than their *appearance*. Classes can be a very effective method of applying different styles .The difference between an ID and a class is that an ID can be used to identify one element, whereas a class can be used to identify more than one.

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Lecture 04

In this lecture we will explore Colors in CSS, color setting methods, Hexadecimal Color codes, background color and background image properties.

4.1 Introduction

The colors selection is very vital part of look and feel of any web site, so please spend a suitable amount of time on surfing a number of websites and ponder on the available color range, color matching and color contrast.

There are many methods to define color in css.

- **Color Name**
  - Define colors by simply entering the name of the desired color.
  - **Format to define Color name is :**

    .mycolors{color:blue; background-color:green;}

- **Hexadecimal value**
  - Define colors with the use of hexadecimal values, similar to defining colors in plain HTML.
  - Hexadecimal form is a pound sign (#) followed by at most, 6 hex values (0-F)
  - **Format to define Hexadecimal is**

    .mycolors{color:#00002F; background-color:#FFCE02;}

  - Hexadecimal number has values from 0 to 9, A , B , C , D, E , F... e.g if you want to write 10 in hexadecimal then you have to write A and if you want to write 255 in hexadecimal then we you have to write FF.
  - Hex Code of pure RED color which id FF0000 and GREE Color WHICH is 00FF00 and BLACK color which is 000000 and WHITE COLOR which is FFFFF.
  - A color code FFAA20 specifies that this color contain RED component equal to FF(255 maximum part of red color)] and Green component equal to AA (170 in decimal) and BLUE is 20(32 in decimal).Look at ref [1] for more details

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- **RGB value**
  - Define colors with the use of RGB values, by simply entering the values for amounts of Red, Green and Blue.
  - **Format to define rgb color is :**

    .mycolors{color:rgb(255,201,202); background-color:rgb(40,51,110);}
  - Colors are made up by three components RED GREEN and BLUE.
  - In rgb: r stands for red g stands for green and b stands for blue.

Below are a screenshots of some websites presenting the use of very reasonable background colors and background images . he lowest value that can be given to one of the light sources is 0 (hex 00). The highest value is 255 (hex FF).

Figure: 1

Figure: 2

Figure: 3

Now let's find out the how we can apply background color and set background image in Html using CSS styling.

CSS properties used for background effects:

- background-color
- background-image
- background-repeat
- background-attachment
- background-position

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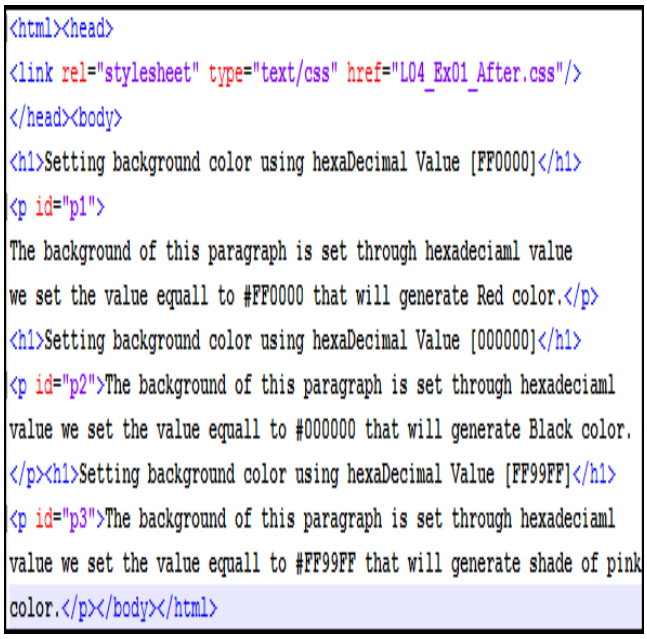
As name identifies that background color will help us applying a color at the background of an element.

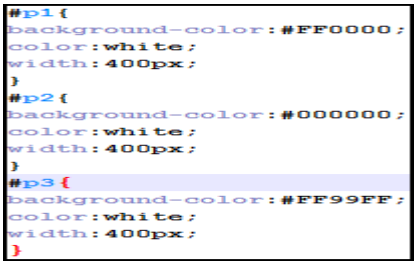
We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	
	In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet. In this code we have used three p tags to display three paragraphs in our web page. In addition to this we have used ID attribute of p tag to assign unique value to the two p tags separately.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L04_Ex01_After.css"/>
</head><body>
<h1>Setting background color using hexaDecimal Value [FF0000]</h1>
<p id="p1">
The background of this paragraph is set through hexadeciaml value
we set the value equall to #FF0000 that will generate Red color.</p>
<h1>Setting background color using hexaDecimal Value [000000]</h1>
<p id="p2">The background of this paragraph is set through hexadeciaml
value we set the value equall to #000000 that will generate Black color.
</p><h1>Setting background color using hexaDecimal Value [FF99FF]</h1>
<p id="p3">The background of this paragraph is set through hexadeciaml
value we set the value equall to #FF99FF that will generate shade of pink
color.</p></body></html>
```

4. **Task:** Write following lines of code into a separate file.

Add this code to your .css file	
	In this case different styling is applied to different paragraphs. Different background colors are applied to different paragraphs While the color attribute is maintained white in all the p elements Default value of a color is black i.e if no color is specified for an element e.g for H1element

```
#p1{
background-color:#FF0000;
color:white;
width:400px;
}
#p2{
background-color:#000000;
color:white;
width:400px;
}
#p3{
background-color:#FF99FF;
color:white;
width:400px;
}
```

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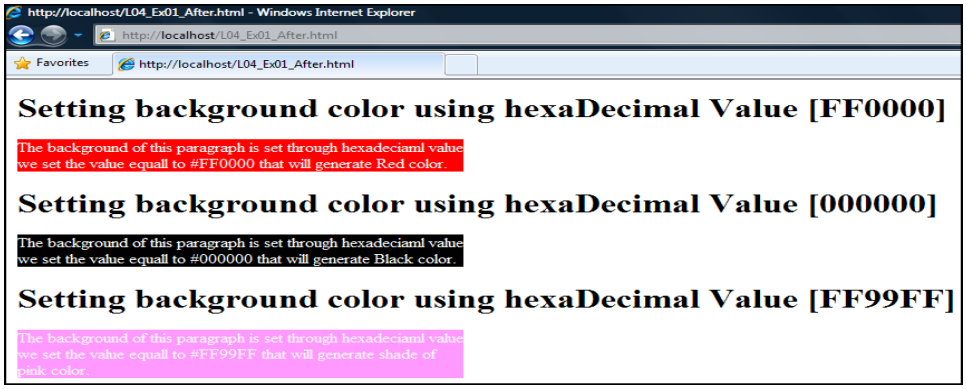
	,then automatically it will be none other than black.

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:



As now you just saw that how easily we can add color to the background of any element.

Note: Here we have used id selector to apply color to elements. But we can make use of Tag selector (specifically) and class selector (generically) to apply our color styling as well.

Now we learn the how we can add image to the background of any element.

It's very simple just use background image property. And you are done!

We have to perform two tasks separately. **There are two files css and html.**

1. **Task:** We write our Html file (see HTML lecture for more details)

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Add This code to your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L04_Ex02_After.css"/>
</head><body>
<h1>How to set background image </h1>
<p id="p1">
Here we set background-image of paragraph. following is sample text
taken from http://www.russianphotographs.net/doc.vphp?id=217 <br>
Backgrounds present both opportunities and challenges to photographers.
</p><h1>By Default Background-Image Repeat Itself </h1>
<p id="p2">Here we set background-image of paragraph <b>with default
repeat option</b>. following is sample text taken from
http://www.russianphotographs.net/doc.vphp?id=217 <br>
Backgrounds present both opportunities and challenges
to photographers.
</p><h1>Background Image With no-repeat</h1>
<p id="p3">Here we set background-image of paragraph <b>with no-repeat
option</b>. following is sample text taken from
http://www.russianphotographs.net/doc.vphp?id=217 <br>
Backgrounds present both opportunities and challenges to photographers.
</p></body></html>
```

In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet.
In this code we have used three p tags to display three paragraphs in our web page.
In addition to this we have used ID attribute of p tag to assign unique value to the two p tags separately.
Now we will use id's of these paragraphs to apply styling at them.

5. **Task:** Write following lines of code into a separate file.

Add this code to your .css file

```
#p1{
background-image: url('images/background.jpg');
color:white;
width:400px;
}
#p2{
background-image:url('images/twitter.jpg');
width:400px;
}
#p3{
background-image:url('images/twitter.jpg');
background-repeat: no-repeat;
width:400px;
}
```

In this code three paragraphs will be displayed with three different background images.
To apply background image to an element, we will use background-image property inside the id of that element.
First paragraph will have background.jpg image in its background
Second paragraph will have twitter.jpg in its background
While third paragraph will also have twitter.jpg in its background.

3. **Task:** Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

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4. Task: Open the html file in to web browser by double clicking on it and the output will be:

4.2 Background-repeat

In the above example if we see carefully, the width of the each paragraph is 400px.In the paragraph one and two; image is repeated while in the third paragraph image is not repeated.

Reason is that if the Background image is smaller than the given size of the element then the image is repeated along the height and width of the element to completely fill the background of the element.

If we do not want to repeat the background image then we have to explicitly declare that we do not need to repeat the image in background. Method for this is follows

background-repeat:no-repeat. By default, the image is repeated in both x and y direction so it covers the entire element.

The background-repeat property sets if/how a background image will be repeated. You can have a background image repeat vertically (y-axis), horizontally (x-axis), in both directions, or in neither direction

4.3 Background-position

The background-position property defines the initial position of an element.If you would like to define where exactly an image appears within an HTML element, you may use CSS's background-position. Please take note that there are three different ways of defining position: length, percentages, and keywords. For instance we are using Keyword.

Three ways to define the position of an element

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- Keywords
  - center top bottom top left top center top right bottom left bottom center bottom right
- Percentages
  - background-position: 50% 50%;
- Lenghts
  - background-position: 200 200;

Note: If no background-position has been specified, the image is placed at the default top-left position of the element (0,0), which is located within the top-left corner of the element

See how background repeat and position property works!

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	
<html><head> <link rel="stylesheet" type="text/css" href="L04_Ex03_After.css"/> </head><body> <h1>Move background-image at specific position. Here it is at top right location </h1> Here we set background-image of paragraph and position of image.following sample text taken from http://www.russianphotographs.net/doc.vphp?id=217 </body></html>	In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet. In this code we have used p tags to display a paragraph in our web page. In addition to this we have used ID attribute of p tag to assign unique value to the p tag. Then we will use id' of the paragraphs to apply styling on it.

2. **Task:** Write following lines of code into a separate file.

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Add this code to your .css file	

`#p1`
`{`
`background-image: url('images/tree.jpg');`
`background-repeat: no-repeat;`
`background-position: right top;`
`width:400px;`
`}`
	Now in the css file we have specified the position for our element with the p1 id whih is a paragraph in this example
	It will be displayed at the right top position in thw web page.

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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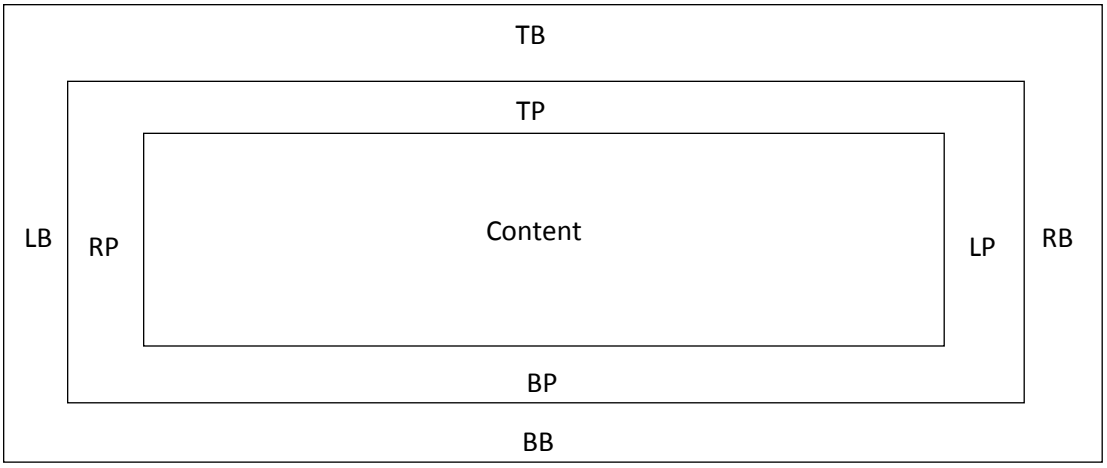
Lecture 05

In this lecture we will see that what is html box model, how to set margins, border of an element, how to give padding, how to handle floating Images, text and font Properties.

First of all we take a look at box model followed by the elements of html.

CSS Box Model



Detail figure of CSS Box Model

Stands For?

TM stands for top margin **RM**-Right Margin **LM**-Left margin **BM**-Bottom margin **TM**-Top Border **RM**-Right Border **LM**-Left border **BM**-Border Bottom **TP**-Top padding **RP**-Right Padding **LP**-Left Padding **BP**-Bottom Padding

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Boundary of any element is called **border**. Distance between the content of any element and its boundary is called **Padding**.While the distance between two elements of html is called **Margin**.

CSS Border, allow you to completely customize the borders that appear around HTML elements. To alter the thickness of your border use the border-width attributes. You may use key terms or exact values to define the border width.

Note: You must define a border-style for the border to show up. Available terms: thin, medium, thick. The border has been made visible, in our example work for each element, so you may more readily see the effects of padding margin.

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	

`<html><head>`
`<link rel="stylesheet" type="text/css" href="L05_Ex03_After.css"/>`
`</head><body>`
`<h1 id="heading1">Padding (top,left,bottom) of text is set to 10 pixel each</h1>`
`<h1 id="heading2">Top margin is set to 40 px that put it away from top element.</h1>`
`</body></html>`
	In this code one line of code is included in the head tag of HTML .And this line is referencing our style-sheet. In this code we have made two headings.Id of one heading is heading1 and the id of the other heading is heading2
	In our CSS file we will set margin and padding of these elements.

2. **Task:** Write following lines of code into a separate file.

Add this code to your .css file	

`#heading1{`
`width:600px;`
`background-color:red;`
`color:white;`
`border: solid 2px black;`
`padding-top: 10px;`
`padding-left: 10px;`
`padding-bottom: 10px;`
`}`
`#heading2{`
`width:600px;`
`background-color:green;`
`color:white;`
`border: solid 2px black;`
`margin-top:40px;`
`}`
	In this code heading1 & heading2 are both of white color which means that the text within them will be of the mentioned color value. Both elements are surrounded by the 2 px thick border. The two heading elements will be of 40px apart because margin-top of the lower heading is set to 40px.Here we will get the same result if we do not set the margin-top property of the heading2 but we set the margin-bottom property of the heading1 to be equal to

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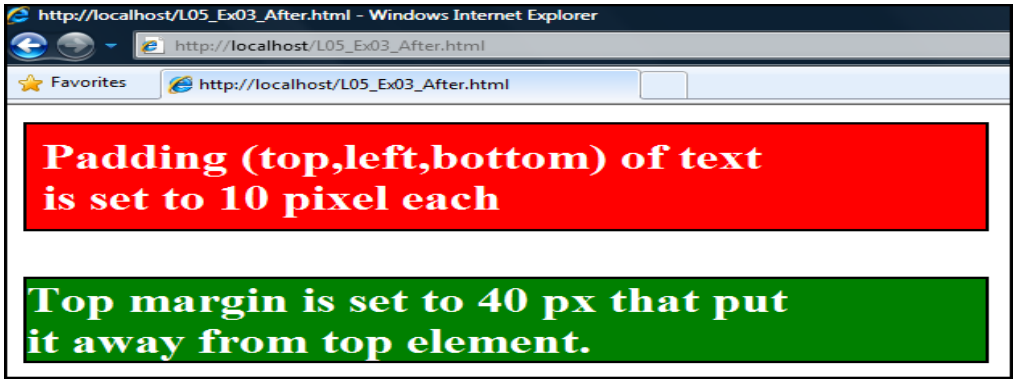
	40px.Both cases will do the same function. While the left top and bottom padding are also defined separately. These settings will create the space between the content of the headings and their boundary. Space between the content of the heading1 and upper boundary will be 10 px asn the padding-topwhile the content of the heading1 will be 10 px away from the left boundary as padding-left=10px

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:



We continue with the formatting text stuff! Basically, we can adjust the size, alignment, style and the weight of our text to be displayed. Let's format our text straight away!

1. **Task:** We write our Html file (see HTML lecture for more details)

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Add This code to your html file	This code is typed in the HTML file. We will set different text styling on the paragraphs elements.you can set different font families provided they are installed on client machine.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L05_Ex01_After.css"/>
</head><body>
<h1>Setting Font Family to Courier </h1>
<p id="p1">
Font Family of this paragraph is set Courier.
</p><h1>Following is Example of Font Size </br>we have set it to small</h1>
<p id="p2">
The background of this paragraph is set through hexadeciaml value we
set the value equall to #000000 that will generate Black color.
</p><h1>Following is Example of Font<br> Size we have set it to 16 pixels
</br>and Transofrom into Capital Case</h1>
<p id="p3">The background of this paragraph is set through hexadeciaml
value we set the value equall to #FF99FF that will generate shade of
pink color.</p></body/></html>
```

2. Task: Write following lines of code into a separate file.

Add this code to your .css file	In this CSS code p1 element font is courier and the width of this paragraph element is set to 400 px. While size of font is set to small in the second paragraph. Font size of an element can be set to large larger medium small smaller and it can be set using px unit e.g 20 px. Text-transform is a quick way to modify the capitalization of your text.

```
#p1{
font-family:courier;
width:400px;
}
#p2{
font-size: small;
}
#p3{
Font-size: 22px;
text-transform:uppercase;
width:400px;
}
```

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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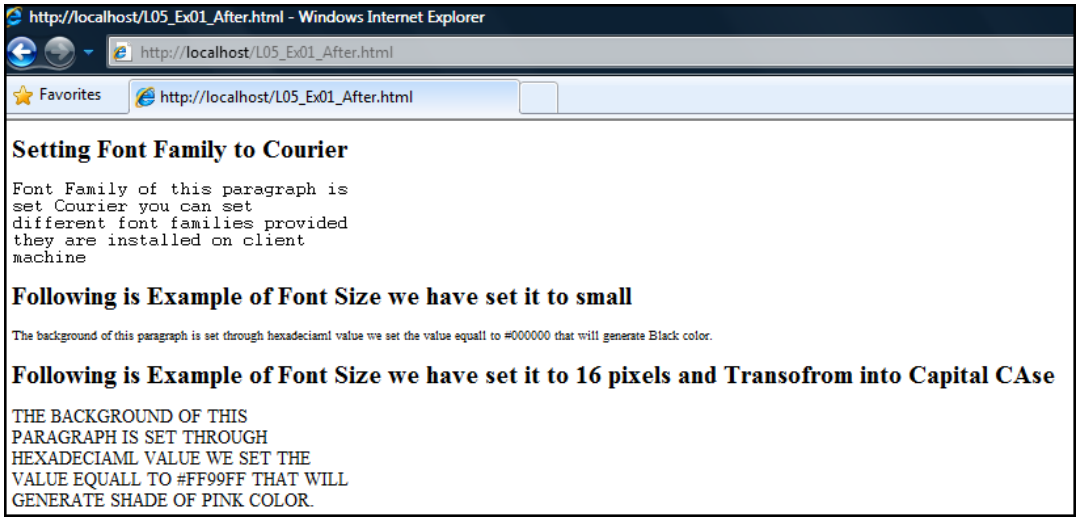

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	This code is typed in the HTML file. .In our CSS file we will apply formatting to our paragraphs and heading elements.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L05_Ex02_After.css"/>
</head><body>
<h1>You Can View This Heading In Center of Page </h1>
<p id="p1">Oracle is reviewing the Sun product roadmap and will
provide guidance to customers in accordance with Oracle's standards.
This article is part 1 of a four-part series.It briefly introduces
basic Representational State Transfer (REST) principles, and then
quickly leaves theory in order to build a real-life sample application.
</p></body></html>
```

2. **Task:** Write following lines of code into a separate file.

Add this code to your .css file	Different alignments can be set such as center left right justified. In this code paragraph width is set to 400px.Otherwise the paragraph will be displayed straight away along the length of the window of the web browser.

```
h1
{
text-align:center
}
#p1
{
font-family:courier;
text-align:justify;
width:400px;
}
```

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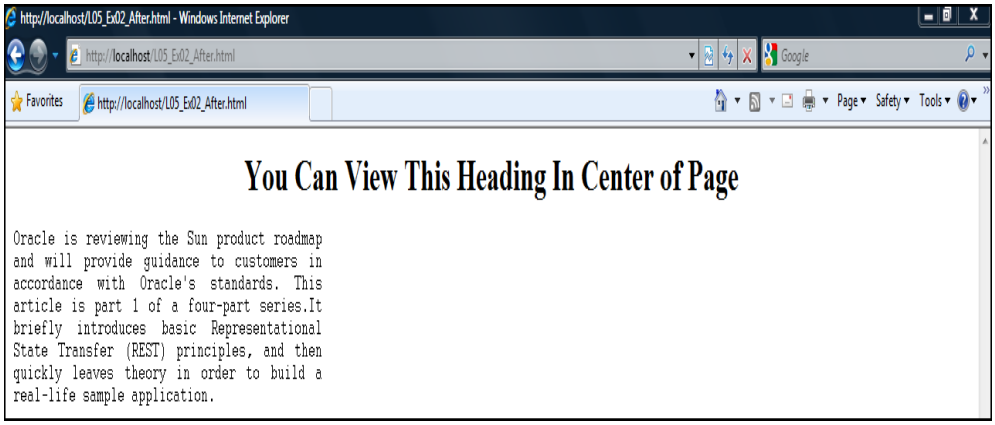
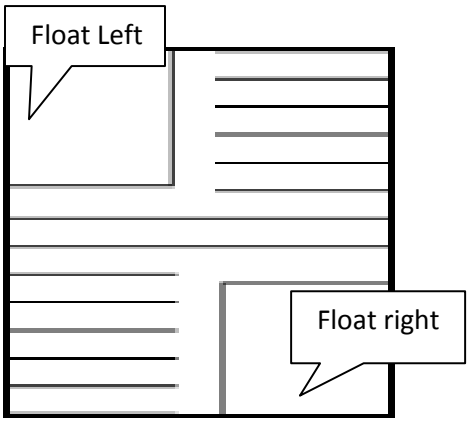
3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:



Now we move to the most interesting part of CSS which is "Floating". **Float** is a CSS positioning property.



Left and Right Floating

You can float elements on the web page to the right or the left. With CSS float, an element (text /Image) can be moved to the left or right, allowing other elements to wrap around it.

Float is very often used for images.

For example, if you float an image to the left, any text or other elements following it will flow around it to the right. And if you float an image to the right, any text or other elements following

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it will flow around it to the left An image that is placed in a block of text without any float style applied to it, will display as the browser is set to display images.

Why Float is used?

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	Simple html coding is shown in this example including two paragraphs and reading styling from .css file

```
<html><head><link rel="stylesheet" type="text/css" href="flot.css"/>
</head><body>
<p id="hed1">i m following box model so i will not let h2
to be placed side by side with me.</p>
<p id="hed2">i m pusehd by h1 to be placed below it
rather than beside it</p>
</body></html>
```

2. **Task:** Write following lines of code into a separate file.

Add this code to your .css file	In this CSS code we will just notice that how an image is displayed by the browser when it is placed in the paragraph tag with some text without any float. After this in the next example we will apply float property to this image. By default HTML elements follows Box model, so as there are two paragraph elements hed1 and hed2 described in the HTML file, hed1 is of 300px width and the hed2 of 300px width. Then due to box model, hed1 and will not be placed side by side with hed2 .In fact #hed2 will be placed below #hed1.

```
#hed1{width:300px;
margin:0px 0px 0px 0px;
padding:0px 0px 0px 0px;
font-size:large;}
#hed2{width:300px;
padding::0px 0px 0px 0px;
margin:0px 0px 0px 0px;
font-size:large;}
```

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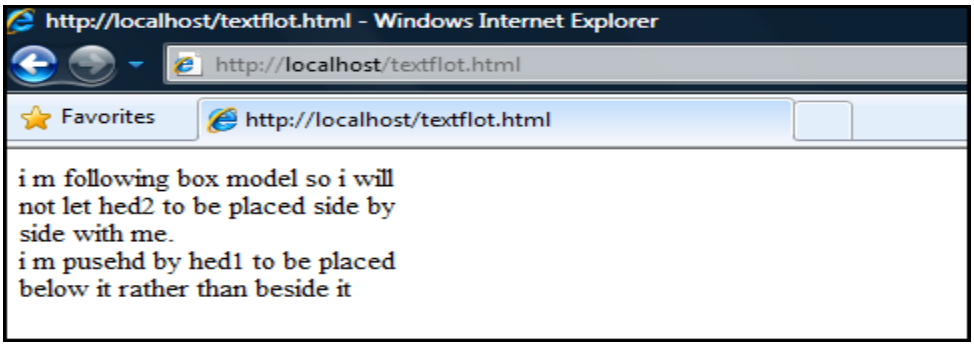
3. **Task:** Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. **Task:** Open the html file in web browser by double clicking on it and the output will be:



By using float we will place elements side by side.

1. **Task:** We write our Html file (see HTML lecture for more details)

Add This code to your html file	

`<html><head><link rel="stylesheet" type="text/css" href="flot.css"/>`
`</head><body>`
`<p id="hed1">i m following box model so i will not let h2`
`to be placed side by side with me.</p>`
`<p id="hed2">i m pusehd by h1 to be placed below it`
`rather than beside it</p>`
`</body></html>`
	In this case we have placed two paragraphs in this file. Paragraphs in this file will take their styling from .css file.

2. **Task:** Write following lines of code into a separate file.

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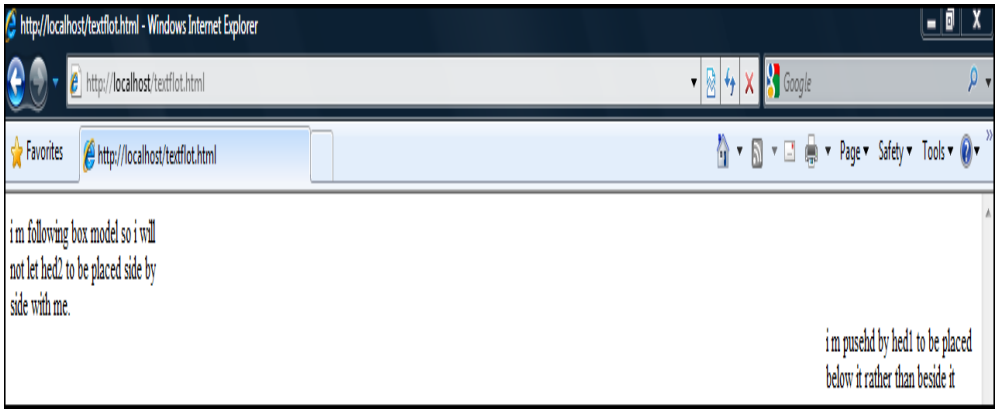
Add this code to your .css file	

`#hed1{width:300px;`
`margin:0px 0px 0px 0px;`
`padding:0px 0px 0px 0px;`
`font-size:large;}`
`#hed2{width:300px;`
`float:right;`
`padding::0px 0px 0px 0px;`
`margin:0px 0px 0px 0px;`
`font-size:large;}`
	In this example we have added flaot property to the #hed2 element.so that it is shifted to the right side of #hed1 element and fulfil our objective.

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in web browser by double clicking on it and the output will be:



Up till now we have played with two text elements and why to apply float on them, now we will play with image and text and apply float on them.

1. **Task:** We write our Html file (see HTML lecture for more details)

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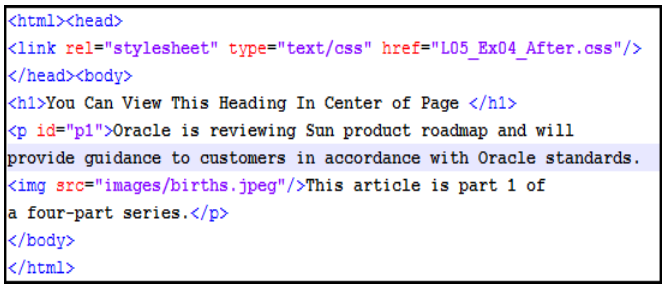
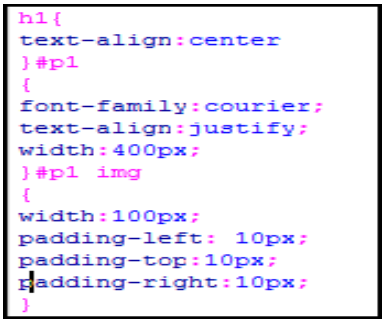
Add This code to your html file	
	This coding is showing simple html file with one heading, a paragraph element and an image element inside it.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L05_Ex04_After.css"/>
</head><body>
<h1>You Can View This Heading In Center of Page </h1>
<p id="p1">Oracle is reviewing Sun product roadmap and will
provide guidance to customers in accordance with Oracle standards.
<img src="images/births.jpeg"/>This article is part 1 of
a four-part series.</p>
</body>
</html>
```

2. Task: Write following lines of code into a separate file.

Add this code to your .css file	
	In this CSS code we will just notice that how an image is displayed by the browser when it is placed in the paragraph tag with some text without any float. After this in the next example we will apply float property to this image.

```
h1{
text-align:center
}#p1
{
font-family:courier;
text-align:justify;
width:400px;
}#p1 img
{
width:100px;
padding-left: 10px;
padding-top:10px;
padding-right:10px;
}
```

3. Task: Now save css file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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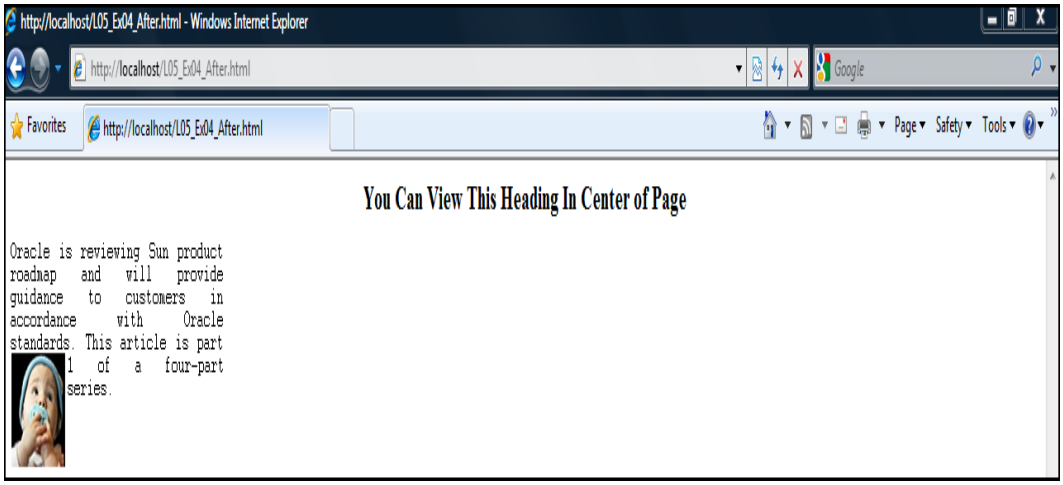

Explanatory Note: In this example we have just noticed that if we do not apply floating to the image appearing within the paragraph tag. It will give an unordered and unstructured look and feel.

Note: While floating images, it should be noted that a margin should be added to images so that the text does not get too close to the image. There should always be a few pixels between words and borders, images, and other content.

Now in the Following example, we will apply float property to position the image at a suitable place.

1. **Task:** We write our Html file and save it.(see HTML lecture for more details)

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Add This code to your html file	This code is typed in the HTML file. .In our CSS file we will apply formatting to our paragraph and image element to get adjusted in the paragraph text nicely.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L05_Ex04_After.css"/>
</head><body><h1>You Can View This Heading In Center of Page </h1>
<p id="p1">Oracle is reviewing the Sun product roadmap.
<img src="images/births.jpeg"/>This article is part 1 of a
four-part series.It briefly introduces basic Representational
State Transfer (REST) principles, and then quickly leaves theory
in order to build a real-life sample application.
</p></body></html>
```

2. Task: Write following lines of code into a separate file.

Add this code to your .css file	In this code we have floated our image element to the left as a result text will be moved towards right.

```
h1{
text-align:center
}#p1
{
font-family:courier;
text-align:justify;
width:400px;
}#p1 img
{
width:100px;
float: left;
padding-left: 10px;
padding-top:10px;
padding-right:10px;
}
```

3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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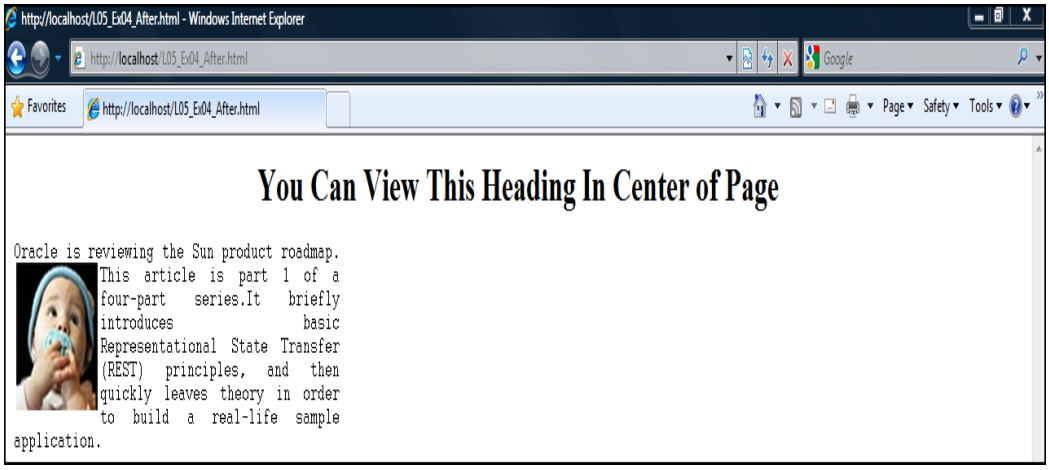

Floats can be used to create **entire web layouts.**

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Lecture06

In this lecture we will get more knowledge about floating and the scenarios arising when floating is applied, what is clear, and also will get basic understanding of div (division) in CSS.

A already mentioned that one of the powerful tools and the backbone of CSS is floating action. Floating can be even used to design the entire layout of a web site same as what we said about a table in html.

Let's perform floating to place two paragraphs side by side! Obviously using left and right floating.

1. **Task:** We write our Html file and save it.(see HTML lecture for more details)

Add This code to your html file	Type the code shown in the image in your html file.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L06_Ex01_After.css"/>
</head>
<body>
<h1>You Can View This Heading In Center of Page </h1>
<p id="p1">Oracle is reviewing the Sun product roadmap and will
 provide guidance to customers in accordance with Oracle's standards.
<img src="images/births.jpeg"/>This article is part 1 of a four-part series
</p><p id="p2">Oracle is reviewing the Sun product roadmap and will
 provide guidance to customers in accordance with Oracle's standards.
<img src="images/close.jpeg"/>This article is part 1 of a four-part series.
</p></body></html>
```

2. **Task:** Write following lines of code into a separate file.

Add this code to your .css file	In this Code img element is floated left setting the left, right and top padding. Along with that two paragraphs are floated left and right respectively. But you can see in step # 3 that #p1 didn't allow to give spare place to #p2 as it is box model. That problem will be solved in next task. Go ahead and see its output in step#3

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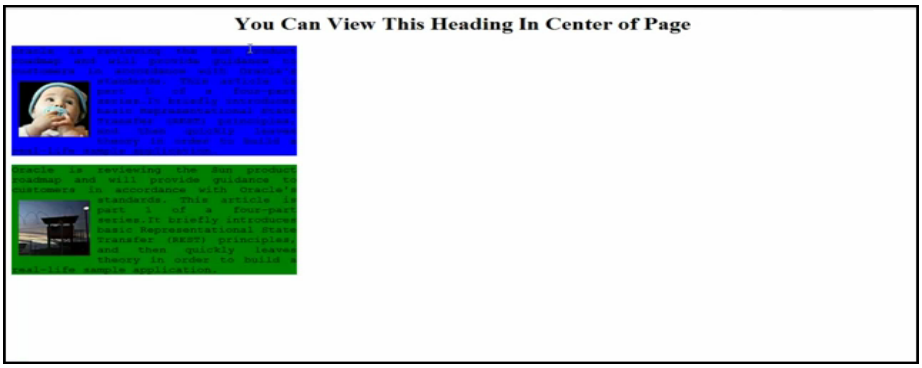
```
h1
{
text-align:center
}
#p1
{
font-family:courier;
text-align:justify;
width:400px;
background-color:blue;
color:white;
}
#p2
{
font-family:courier;
text-align:justify;
background-color:green;
color:white;
width:400px;
}
img
{
width:100px;
float: left;
padding-left: 10px;
padding-top:10px;
padding-right:10px;
}
```

3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:



We just saw from the output that #p1 didn't allow #p2 to lay aside. Again the problem is same as described above that elements are using Box model and didn't allow two paragraphs to lay side by side even if there s some space is left after the first paragraph.And this space is enough to be occupied by the paragraph2,But default behavior of Paragraph to follow box model pushed paragraph2 below it.

How to place them aside by side with each other. Again solution is to use floating.

Also use another useful element of CSS which replaces table of HTML. The element is well-suited to take over from tables as a layout tool. It is an element that is used to *div*ide the page into sections, and can hold whatever you need inside it. Each section can then have its own formatting. Using div it becomes easy to manage and manipulate the web page easily.

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1. **Task:** We write our Html file and save it.(see HTML lecture for more details)

Add This code to your html file	Type the code shown in the image in your html file.

```
<html><head>
<link rel="stylesheet" type="text/css" href="L06_Ex01_After.css"/>
</head><body>
<h1>You Can View This Heading In Center of Page </h1>
<div id="container">
<p id="p1">Oracle is reviewing the Sun product roadmap and will
 provide guidance to customers in accordance with Oracle's standards.
<img src="images/births.jpeg"/>This article is part 1 of a four-part series.</p>
<p id="p2">Oracle is reviewing the Sun product roadmap and will provide guidance
 to customers in accordance with Oracle's standards.
<img src="images/close.jpeg"/>This article is part 1 of a four-part series.</p>
</div></body></html>
```

2. Task: Write following lines of code into a separate file.

Add this code to your .css file	In this Code img element is floated left setting the left right and top padding. Along with that two paragraphs are floated left and right. Container div gave us remarkable solution and place two elements side by side which were positioned using Floats.

```
h1{
text-align:center
}
#p1{
font-family:courier;
text-align:justify;
width:400px;
background-color:blue;
color:white;
float:left;
}
#p2{
font-family:courier;
text-align:justify;
background-color:green;
color:white;
width:400px;
float:right;
}
#container{
width:820px;
}
img{
width:100px;
float: left;
padding-left: 10px;
padding-top:10px;
padding-right:10px;
```

3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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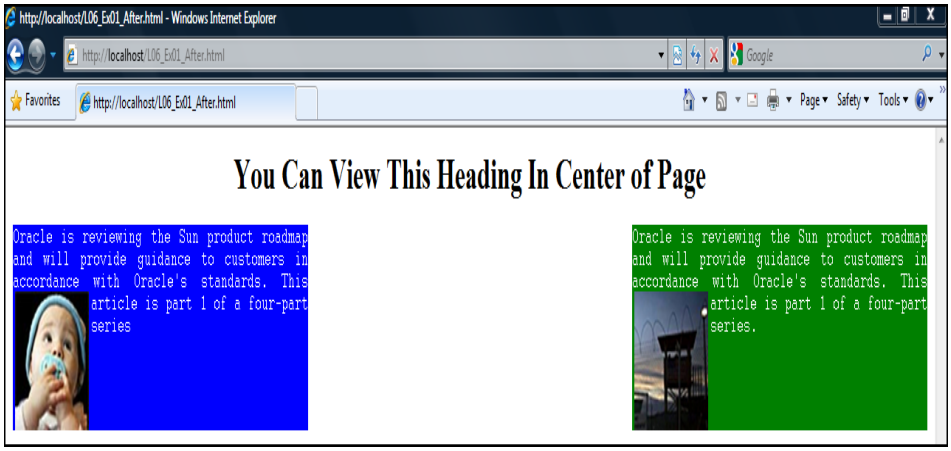

Controlling the width of the container div we can minimize the distance between the two elements .the more we reduce the width .the more they come close to each other.

Elements following a floated element will wrap around the floated element. If you do not want this to occur, you can apply the "clear" property to these following elements. The clear property is used to control how the subsequent elements of floated elements in a document shall behave. By default, the subsequent elements are moved up to fill the available space which will be freed when a box is floated to a side.

Now we see one problem by the use of float and find out its solution.

1. **Task:** We write our Html file and save it.(see HTML lecture for more details)

Add This code to your html file	Type the code shown in the image in your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L06_Ex02_After.css"/>
</head><body>
<h1>You Can View This Heading In Center of Page </h1>
<div id="container">
<p id="p1">Oracle is reviewing the Sun product roadmap and
will provide guidance to customers in accordance with Oracle's standards.
<img src="images/births.jpeg"/>This article is part 1 of a four-part series.</p>
<p id="p2">Oracle is reviewing the Sun product roadmap and
will provide guidance to customers in accordance with Oracle's standards.
<img src="images/close.jpeg"/>This article is part 1 of a four-part series.</p>
<p id="p3">I am third paragraph.
My color is black and text color is white.
I will show you a common problem and its solution in floating
</p></div></body></html>
```

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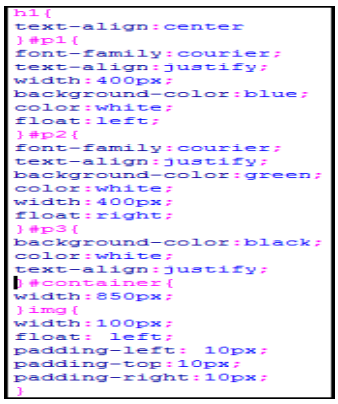
2. Task: Write following lines of code into a separate file.

Add this code to your .css file	
	In this Code img element is floated left setting the left right and top padding. Now the problem is that third element occupied the space which is left between the two floated elements. This gives the effect of overlapping. And resultantly disturb our design. This problem is raised by the use of

```
h1{
text-align:center
}#p1{
font-family:courier;
text-align:justify;
width:400px;
background-color:blue;
color:white;
float:left;
}#p2{
font-family:courier;
text-align:justify;
background-color:green;
color:white;
width:400px;
float:right;
}#p3{
background-color:black;
color:white;
text-align:justify;
}#container{
width:850px;
}img{
width:100px;
float: left;
padding-left: 10px;
padding-top:10px;
padding-right:10px;
}
```

3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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Now this is the time to take our new element (which is a paragraph at the moment) out of the empty space left due to other floating elements.

Use clear as the solution

Clear property can be used to clear from left or from right or both. Clear both means that element having clear:both styling defined in its tag should have both lefts and right clear.

1. **Task:** We write our Html file and save it.(see HTML lecture for more details)

Add This code to your html file	Type the code shown in the image in your html file

```
<html><head>
<link rel="stylesheet" type="text/css" href="L06_Ex02_After.css"/>
</head><body>
<h1>You Can View This Heading In Center of Page </h1>
<div id="container">
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will provide guidance to customers in accordance with Oracle's standards.
<img src="images/births.jpeg"/>This article is part 1 of a four-part series.</p>
<p id="p2">Oracle is reviewing the Sun product roadmap and
will provide guidance to customers in accordance with Oracle's standards.
<img src="images/close.jpeg"/>This article is part 1 of a four-part series.</p>
<p id="p3">I am third paragraph.
My color is black and text color is white.
I will show you a common problem and its solution in floating
</p></div></body></html>
```

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2. Task: Write following lines of code into a separate file.

Add this code to your .css file	

`h1{`
`text-align:center`
`}#p1{`
`font-family:courier;`
`text-align:justify;`
`width:400px;`
`background-color:blue;`
`color:white;`
`float:left;`
`}#p2{`
`font-family:courier;`
`text-align:justify;`
`background-color:green;`
`color:white;`
`width:400px;`
`float:right;`
`}#p3{`
`background-color:black;`
`color:white;`
`text-align:justify;`
`clear:both;`
`}#container{`
`width:850px;`
`}img{`
`width:100px;`
`float: left;`
`padding-left: 10px;`
`padding-top:10px;`
`padding-right:10px;`
`}`
	In this Code img element is floated left setting the left right and top padding.
	Problem is solved using clear property.
	#p3 is given a property Clear:both
	Use of clear is solving the problem raised by the use of float.
	Clear is clearing both sides of third paragraph and resultantly placing the this third element of div container without any float at the bottom of the two floated elements within the same div.

3. Task: Now save CSS file (Press ctrl+s).While creating a style-sheet, just save the file as *Filename*.css and put it in the same directory as your referenced html file.

4. Task: Open the html file in to web browser by double clicking on it and the output will be:

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References

[1] http://easycalculation.com/hex-converter.php

Fig 1: http://osc4.template-help.com/wt_30165/index.html

Fig 2: http://www.dreamtemplate.com/templates/Business/detail/6530.html

Fig 3: http://www.dreamtemplate.com/index.php?action=detail&catID=3&productID=2816

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