Definition listed

Definition lists are made up of a set of terms along with the definitions for each of those terms.

The definition list is created with the **<dl>** element.

Inside the <dl> element you will usually see pairs of **<dt>** and **<dd>** elements.

<dt> is used to contain the term being defined (the definition term).

<dd> is used to contain the definition.

HTML

```
<dl>
     <dt><b>ET-570 Creating Smartphone Applications</b></dt>
          <dd>This course introduces the use and features of smartphones in modern
          life and how to create working applications. </dd>
     <br/>
     <dt><b>ET-710 Web Technology: Building and Maintaining Web Sites</b></dt>
          <dd>ET 710 focuses on the skills needed to build, maintain, and
          administrate a website.  </dd
</dl>
```

DISPLAY

ET-570 Creating Smartphone Applications
> This course introduces the use and features of smartphones in modern life and how to create working applications.

ET-710 Web Technology: Building and Maintaining Web Sites
> ET 710 focuses on the skills needed to build, maintain, and administrate a website.

2.3. Tables

There are several types of information that need to be displayed in a grid or table. For example: sports results, stock reports, and train timetables.

Basic tables structure

The **<table>** element is used to create a table. The contents of the table are written out row by row.

You indicate the start of each row using the opening **<tr>** tag. (The tr stands for table row). At the end of the row you use a closing **</tr>** tag.

Each cell of a table is represented using a **<td>** element. (The td stands for table data.)

Example) Create a table with the following information

DISPLAY

Column 1	Column 2	Column 3
45	60	45
60	90	90

```
<table>
   <tr> <td>Column 1</td> <td> Column 2</td> <td>Column 3</td> </tr>
   <tr align="center"> <td> 45</td> <td >60</td> <td>45</td></tr>
   <tr align="center"><td>60</td> <td>90</td> <td>90</td> </tr>
</table>
```

The `<th>` element is used just like the `<td>` element but its purpose is to represent the heading for either a column or a row. (The **th** stands for table heading.)

You can use the **scope** attribute on the `<th>` element to indicate whether it is a heading for a **column** or a **row**. It can take the values row to indicate a heading for a row or col to indicate a heading for a column.

Example) Create the following table

	Saturday	Sunday
Tickets sold:	120	135
Total sales:	$600	$675

```
<table>
    <tr> <th></th> <th>Saturday</th> <th>Sunday</th></tr>
    <tr><th>Tickets sold:</th> <td align='center'>120</td> <td align='center'>135</td></tr>
    <tr><th>Total sales:</th> <td align='center'>$600</td> <td align='center'>$675</td></tr>
</table>
```

Border and background

The **border** attribute was used on both the <table> and <td> elements to indicate the width of the border in pixels.

The **bgcolor** attribute was used to indicate background colors of either the entire table or individual table cells.

Color can code in three ways:

- By the color name such as red, blue, green, black, lightblue, etc
- By the hex color palette code. You can get the hex color palette in: http://www.color-hex.com/color-palettes
- By the combination of RGB code.

Example) Create a following table with table border = 2px, table background *yellow* , 2nd row to *pink* , and one cell to *lightgreen*

```
<table border="2" bgcolor="yellow">
    <tr>
        <th width="100"></th><th width="100">Withdrawn</th><th width="100">Credit</th>
        <th width="100">Balance</th></tr>
    <tr align="center" bgcolor="pink">
        <th>January</th><td>$250.00</td><td>$660.50</td><td>$410.50</td></tr>
    <tr align="center">
        <th>February</th><td>$135.55</td><td>$895.20</td><td bgcolor="lightblue">$1170.15</td></tr>
</table>
```

	Withdrawn	Credit	Balance
January	$250.00	$660.50	$410.50
February	$135.55	$895.20	$1170.15

2.4. Managing images in HTML

There are many reasons why you might want to add an image to a web page: you might want to include a logo, photograph, illustration, diagram, or chart.

Images should...

- o Be relevant
- o Convey information
- o Convey the right mood
- o Be instantly recognizable
- o Fit the color palette

Stock photos

If you do not have photographs to use on your website, there are companies who sell stock images or icons:
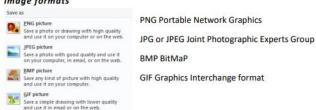
- o www.pexels.com
- o www.iconfinders.com

What is the best screen size to design for?

It is important to understand the size of the computer screen in order to coordinate the size of the image. Based on the worldwide screen resolution stats (nov 2016 – nov 2017) chart above and the charts below, these are the resolutions you need to be aware of in 2018.

- 360×640 – 21.54%
- 1366×768 – 12.85%
- 1920×1080 – 7.76%
- 375×667 – 4.94%
- 1440×900 – 3.32%
- 1280×800 – 2.67%

Image formats

Save as

PNG picture
Save a photo or drawing with high quality and use it on your computer or on the web.

JPEG picture
Save a photo with good quality and use it on your computer, in email, or on the web.

BMP picture
Save any kind of picture with high quality and use it on your computer.

GIF picture
Save a simple drawing with lower quality and use it in email or on the web.

PNG Portable Network Graphics

JPG or JPEG Joint Photographic Experts Group

BMP BitMaP

GIF Graphics Interchange format

The images on your computer screen are made up of lots of tiny squares known as pixels. The resolution of the screen is the number of pixels represented on it, and on most computers you can increase and decrease this number.

JPEG offers good quality when the image has many different colors.

GIF or PNG images are low quality images which are good for images with few colors or large areas of the same color (flat color). Example of them are logos, illustrations, and diagrams.

Exercise) which format would you save the following images?

Image dimensions

The images you use on your website should be saved at the same width and height that you want them to appear on the page.

Cropping image

When cropping images it is important not to lose valuable information. It is best to source images that are the correct shape if possible.

Store Images

As a website grows, keeping images in a separate folder helps you understand how the site is organized. Usually they are stored in sub-folder called "images".

On a big site you might like to add subfolders inside the images folder. For example, images such as logos and buttons might sit in a folder called interface, product photographs might sit in a page called products, and images related to news might live in a folder called news.

Adding images to a webpage

To add an image into the page you need to use an **<img>** element. This is an empty element (which means there is no closing tag). It must carry the attribute src.

<img> attributes

src tells the browser where it can find the image file. This will usually be a relative URL pointing to an image on your own site.

alt provides a text description of the image which describes the image if you cannot see it.

title provides additional information about the image. Most browsers will display the content of this attribute in a tooltip when the user hovers over the image.

height specifies the height of the image in pixels.

width specifies the width of the image in pixels.

QCC ICON Image Link:
http://www.qcc.cuny.edu/sports/images/camera-shy/QCC_Tiger.jpg

```
<img src="http://www.qcc.cuny.edu/sports/images/camera-shy/QCC_Tiger.jpg" alt="qcc logo" title="
QCC  tiger" width="100" height="150">

<img src="img_girl.jpg" alt="Girl in a
jacket" style="width:500px;height:600px;">
```

Alignment of an image in a webpage

The align attribute was commonly used to indicate how the other parts of a page should flow around an image. It has been removed from HTML5 and new websites should use CSS to control the alignment of images.

The align attribute can take these values:

left aligns the image to the left (allowing text to flow around its right-hand side).

right aligns the image to the right (allowing text to flow around its left-hand side).

top aligns the first line of the surrounding text with the top of the image.

middle aligns the first line of the surrounding text with the middle of the image.

bottom aligns the first line of the surrounding text with the bottom of the image.

HTML

```
<h3 align="center">Images and attributes</h3>
<img src="QCC_Tiger.jpg" alt="Logo of QCC tiger" title="This is tile of logo"
height="200px" width="200px" border="2px" align="right"/>
```

DISPLAY

Images and attributes

HTML5: figure and figure caption

HTML5 has introduced a new **\<figure\>** element to contain images and their caption so that the two are associated.

You can have more than one image inside the **\<figure\>** element as long as they all share the same caption.

The **\<figcaption\>** element has been added to HTML5 in order to allow web page authors to add a caption to an image.

<div style="border:1px solid green;">

HTML

```
<h3 align="center">Images using figure and attributes</h3>
<figure>
  <img src="QCC_Tiger.jpg" alt="Logo 1" height="90px" width="90px" border="1px">
  <img src="QCC_Tiger.jpg" alt="Logo 2" height="90px" width="90px" border="1px">
  <img src="QCC_Tiger.jpg" alt="Logo 3" height="90px" width="90px" border="1px">
  <figcaption>This is a caption using tab figcaption <br/><i>QCC Logos </i>
  </figcaption>
</figure>
```

</div>

<div style="border:1px solid green;">

DISPLAY

Images using figure and attributes

This is a caption using tab figcaption
QCC Logos

</div>

2.5. Links

Links are the defining feature of the web because they allow you to move from one web page to another — enabling the very idea of browsing or surfing

Writing Links

Links are created using the **<a>** element. Users can click on anything between the opening **<a>** tag and the closing **** tag.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

Some of **<a>** attributes are **href** and target:

— **href:** Specifies the URL of the page the link goes to.
— **target:** Specifies where to open the linked document. Some of the value of attribute target are: _blank, _parent, _self, _top

Linking to other sites

Links are created using the **<a>** element which has an attribute called **href**. The value of the href attribute is the page that you want people to go to when they click on the link.

DISPLAY

Linking to other sites

For more information about the college, click in the following link: Queensborough Community College

HTML

```
<h3>Linking to other sites </h3>
<p>For more information about the college, click in the following link:
<a href="http://www.qcc.cuny.edu">Queensborough Community College</a></p>
```