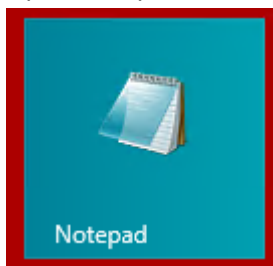


## Tutorial

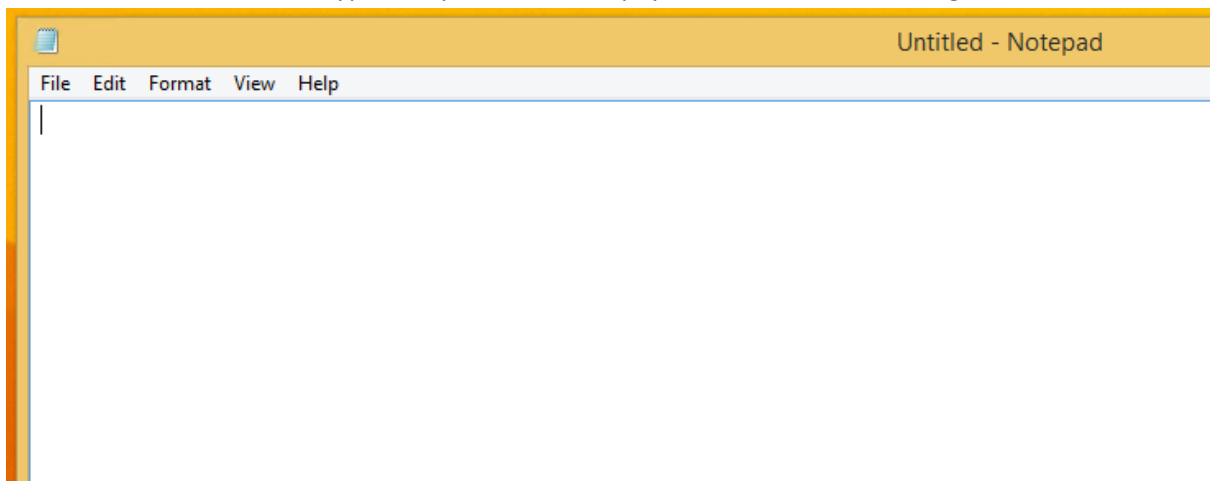
### Activities

- Code
  - Editor: Notepad
  - Focus : Text manipulation & webpage skeleton

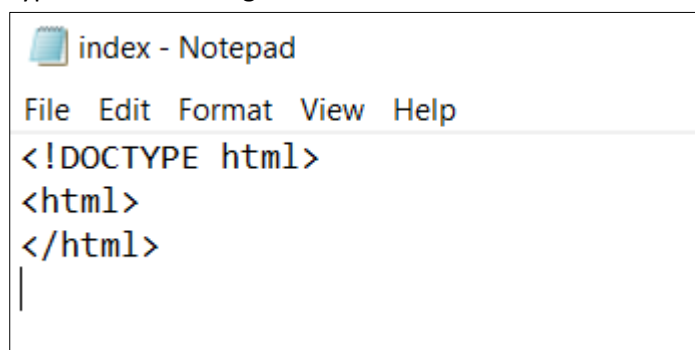
- Open Notepad



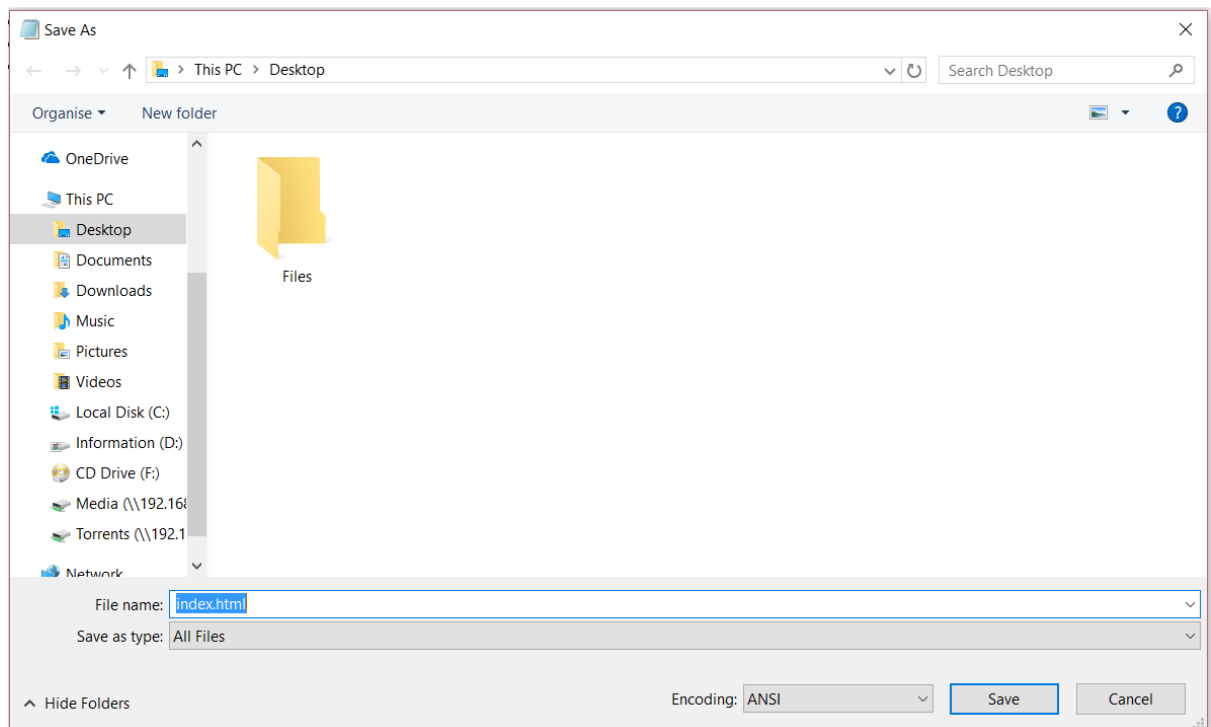
- Click in the search bar and type notepad to load it up, you should see something like this:



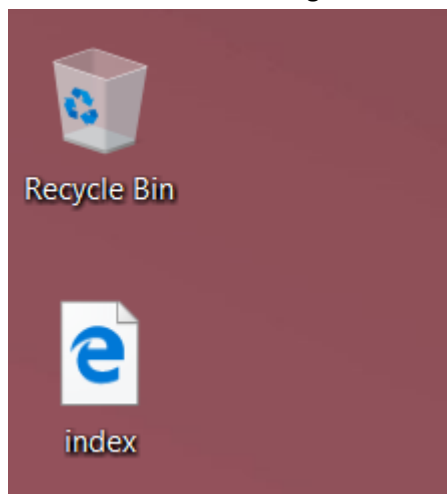
- Type in the following



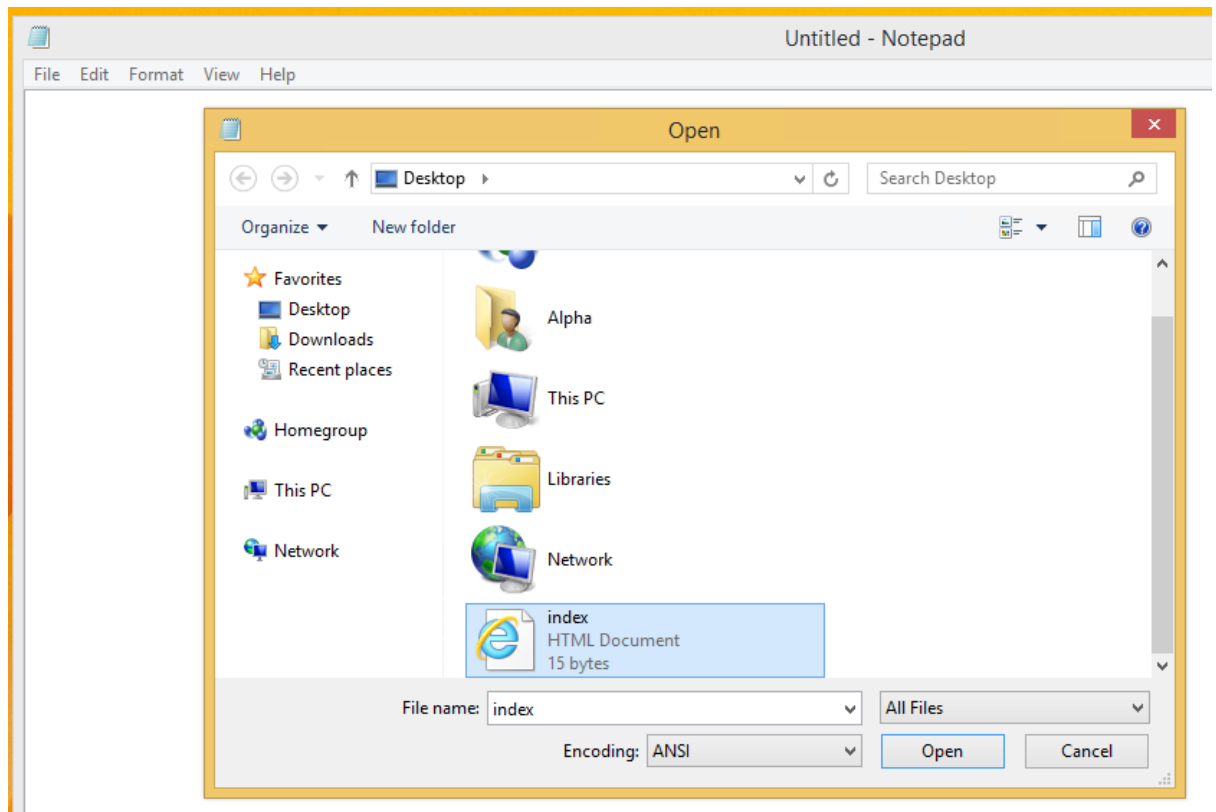
- Then save it as index.html on the desktop



- 
- Go to file save as, locate the desktop, change the filename to index.html and make sure the save as type is setup as all files.
- You should see something like this



- 
- If you don't see it with the internet explorer icon, it could be with firefox or chrome icon. If it looks like text document, re save the file going through the steps again, make sure the extension is .html
- From here, double click the index page, this will open it up into a browser
- Congrats, you made your first webpage.
- Close down notepad
- Now re open notepad and load up your web page



- 
- Go, file -> open; find the desktop, change the file type to All files and then select your index page.
- Now, we put in the base structure of a web site.
- Modify your index page like this:

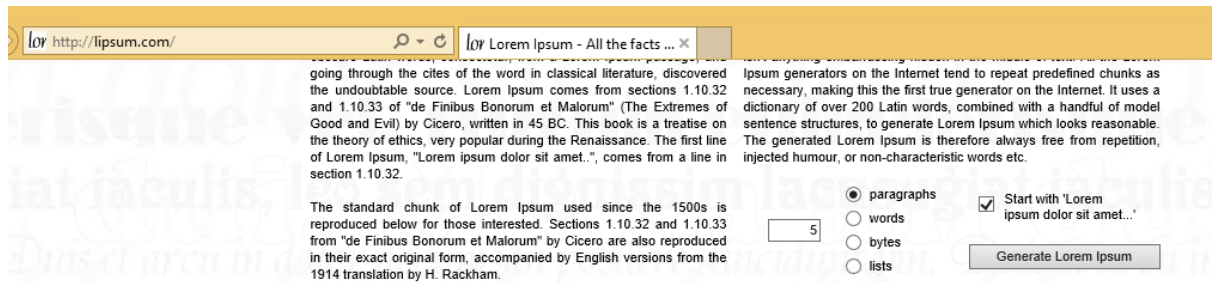
```

index - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
    <head>
        <title>My First Web Page</title>
    </head>
    <body>
    </body>
</html>

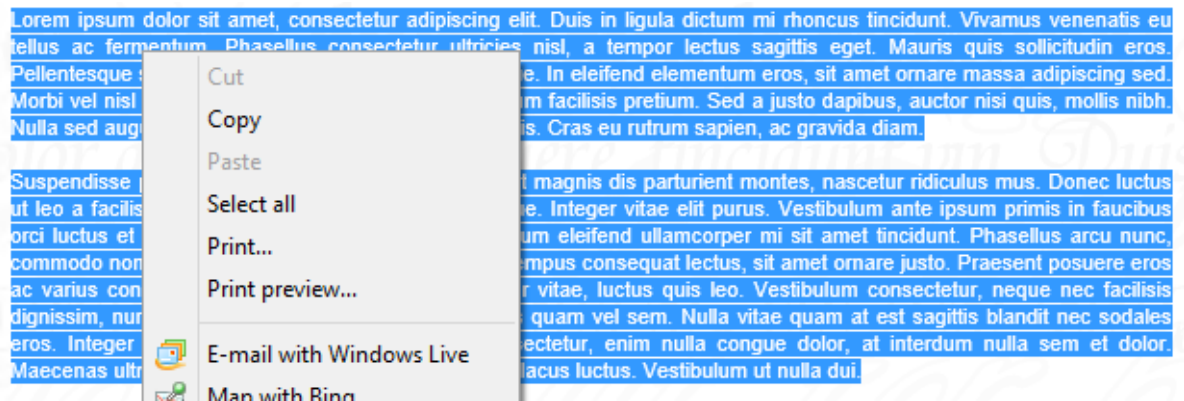
```

- 
- From here save the page and reload it in your browser
  - File - > Save or Ctrl + S
  - Double click the file on the desktop
- Yes the page is empty, but if you notice there is now a title on the tab for that page.

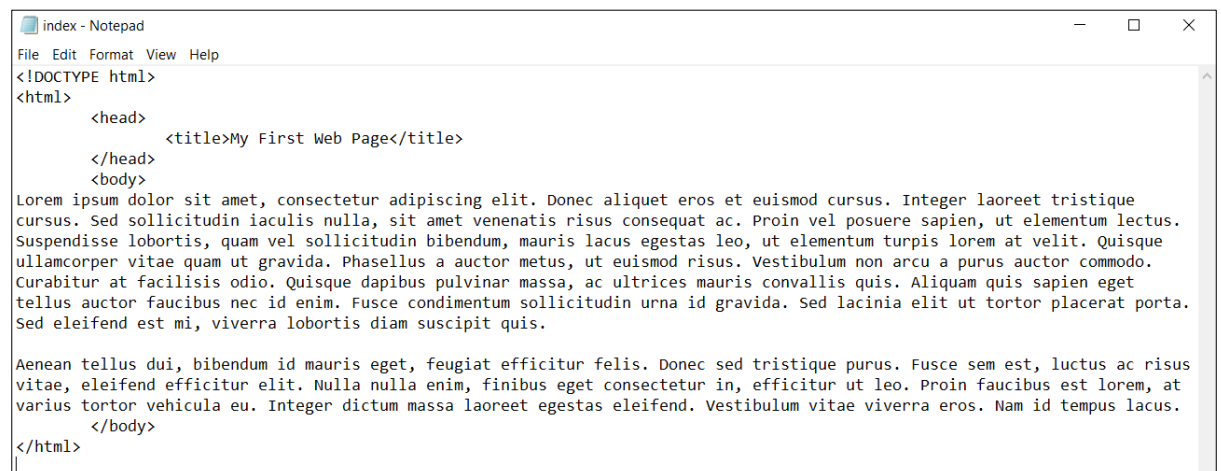
Now we need to go get some content, to do this we will go to the website [lipsum.com](http://lipsum.com/), then click on generate ipsum and copy and paste 2 paragraphs.



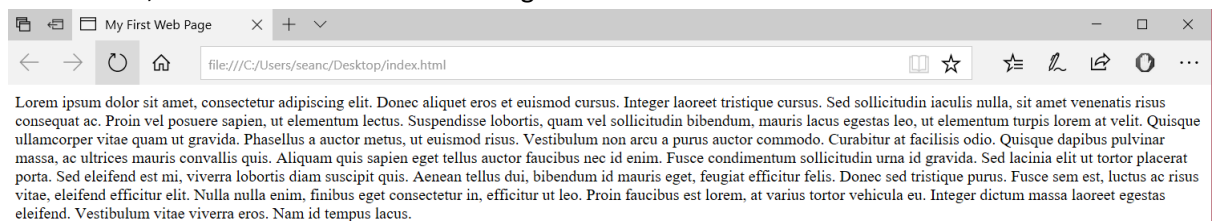
- 
- Grab the first few paragraphs and then copy (Ctrl + C, or right click copy)



- 
- Then paste them into your index page, between the <body></body> tags



- 
- Save the page and reload it in the browser
- The page now contains a lot of text, but the layout and structure of the site is pretty horrendous, so we will now work on making this more readable.



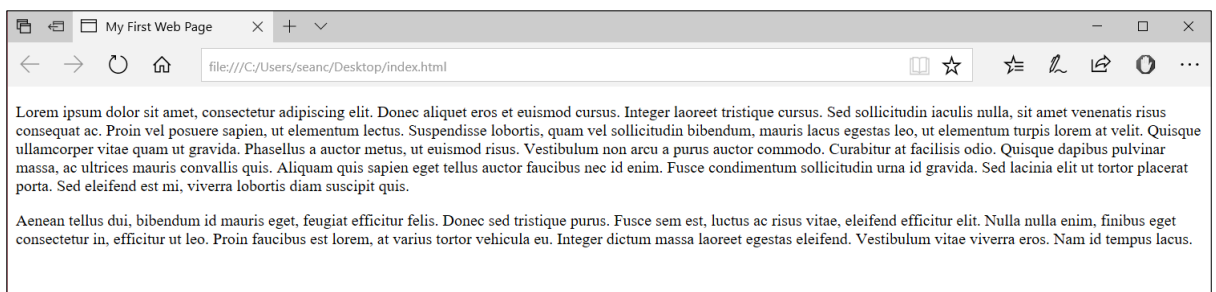
- 
- Now we will start some design on the content.
-

- So to start off with, we'll put the paragraphs of text between the paragraph tags `<p></p>`

```
index - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec aliquet eros et euismod cursus. Integer laoreet tristique
    cursus. Sed sollicitudin iaculis nulla, sit amet venenatis risus consequat ac. Proin vel posuere sapien, ut elementum lectus.
    Suspendisse lobortis, quam vel sollicitudin bibendum, mauris lacus egestas leo, ut elementum turpis lorem at velit. Quisque
    ullamcorper vitae quam ut gravida. Phasellus a auctor metus, ut euismod risus. Vestibulum non arcu a purus auctor commodo.
    Curabitur at facilisis odio. Quisque dapibus pulvinar massa, ac ultrices mauris convallis quis. Aliquam quis sapien eget
    tellus auctor faucibus nec id enim. Fusce condimentum sollicitudin urna id gravida. Sed lacinia elit ut tortor placerat porta.
    Sed eleifend est mi, viverra lobortis diam suscipit quis. </p>

    <p>Aenean tellus dui, bibendum id mauris eget, feugiat efficitur felis. Donec sed tristique purus. Fusce sem est, luctus ac
    risus vitae, eleifend efficitur elit. Nulla nulla enim, finibus eget consectetur in, efficitur ut leo. Proin faucibus est
    lorem, at varius tortor vehicula eu. Integer dictum massa laoreet egestas eleifend. Vestibulum vitae viverra eros. Nam id
    tempus lacus. </p>
  </body>
</html>
```

- Save and reload the page in the browser



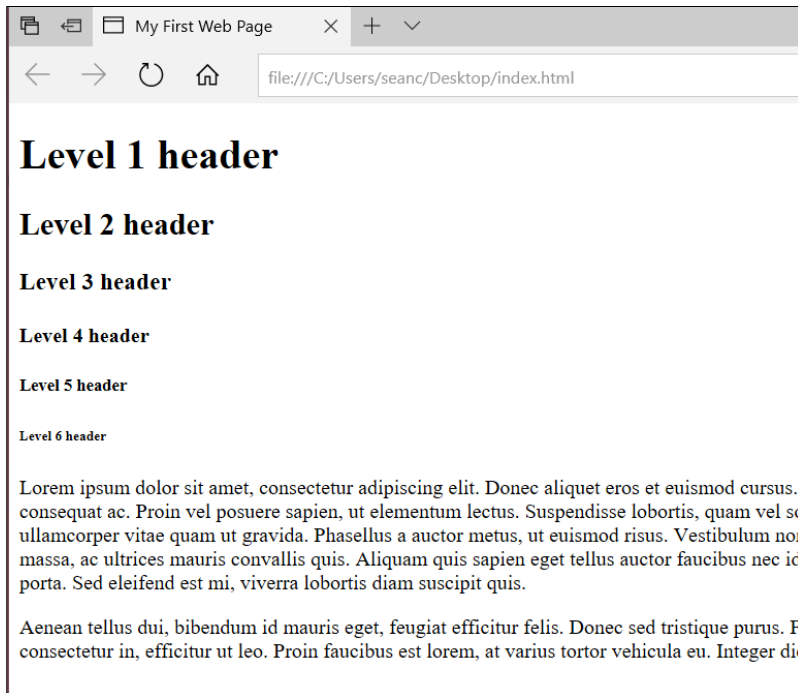
Notice how the `<p>` tag has split the content into paragraphs. Next we will add some headers to the page. There are 6 header tags, with H1 being the largest font size to H6 being the smallest.

- Let's look at Header tags, these are used to create headings in your web pages
- Write the following code

```
index - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
    <h1>Level 1 header</h1>
    <h2>Level 2 header</h2>
    <h3>Level 3 header</h3>
    <h4>Level 4 header</h4>
    <h5>Level 5 header</h5>
    <h6>Level 6 header</h6>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec aliquet eros et euismod cursus. Integer laoreet tristique
    cursus. Sed sollicitudin iaculis nulla, sit amet venenatis risus consequat ac. Proin vel posuere sapien, ut elementum lectus.
    Suspendisse lobortis, quam vel sollicitudin bibendum, mauris lacus egestas leo, ut elementum turpis lorem at velit. Quisque
    ullamcorper vitae quam ut gravida. Phasellus a auctor metus, ut euismod risus. Vestibulum non arcu a purus auctor commodo.
    Curabitur at facilisis odio. Quisque dapibus pulvinar massa, ac ultrices mauris convallis quis. Aliquam quis sapien eget
    tellus auctor faucibus nec id enim. Fusce condimentum sollicitudin urna id gravida. Sed lacinia elit ut tortor placerat porta.
    Sed eleifend est mi, viverra lobortis diam suscipit quis. </p>

    <p>Aenean tellus dui, bibendum id mauris eget, feugiat efficitur felis. Donec sed tristique purus. Fusce sem est, luctus ac
    risus vitae, eleifend efficitur elit. Nulla nulla enim, finibus eget consectetur in, efficitur ut leo. Proin faucibus est
    lorem, at varius tortor vehicula eu. Integer dictum massa laoreet egestas eleifend. Vestibulum vitae viverra eros. Nam id
    tempus lacus. </p>
  </body>
</html>
```

- 
- Save and reload the page in the browser, you should see something like this



- 
- So, back to the code, remove the <h2> through to </h6> code. Notice how the <Hx> tags make the font bold and applied a line break before and after each word. This is a built in attribute to the command.
- Add the following code to your page, these commands are very common.
  - <b></b> - bold
  - <i></i> - italic
  - <em></em> - emphasized
  - <strong></strong> - Important text
  - <br> - line break

```
index - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
    <h1>Level 1 header</h1>

    <b>This is bold</b><br>
    <i>This is italic</i><br>
    <em>This is emphasized</em><br>
    <strong>This is important</strong><br>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec al
    cursus. Sed sollicitudin iaculis nulla, sit amet venenatis risus con
    Suspendisse lobortis, quam vel sollicitudin bibendum, mauris lacus e
    ullamcorper vitae quam ut gravida. Phasellus a auctor metus, ut euis
    Curabitur at facilisis odio. Quisque dapibus pulvinar massa, ac ultr
    tellus auctor faucibus nec id enim. Fusce condimentum sollicitudin u
    Sed eleifend est mi, viverra lobortis diam suscipit quis. </p>

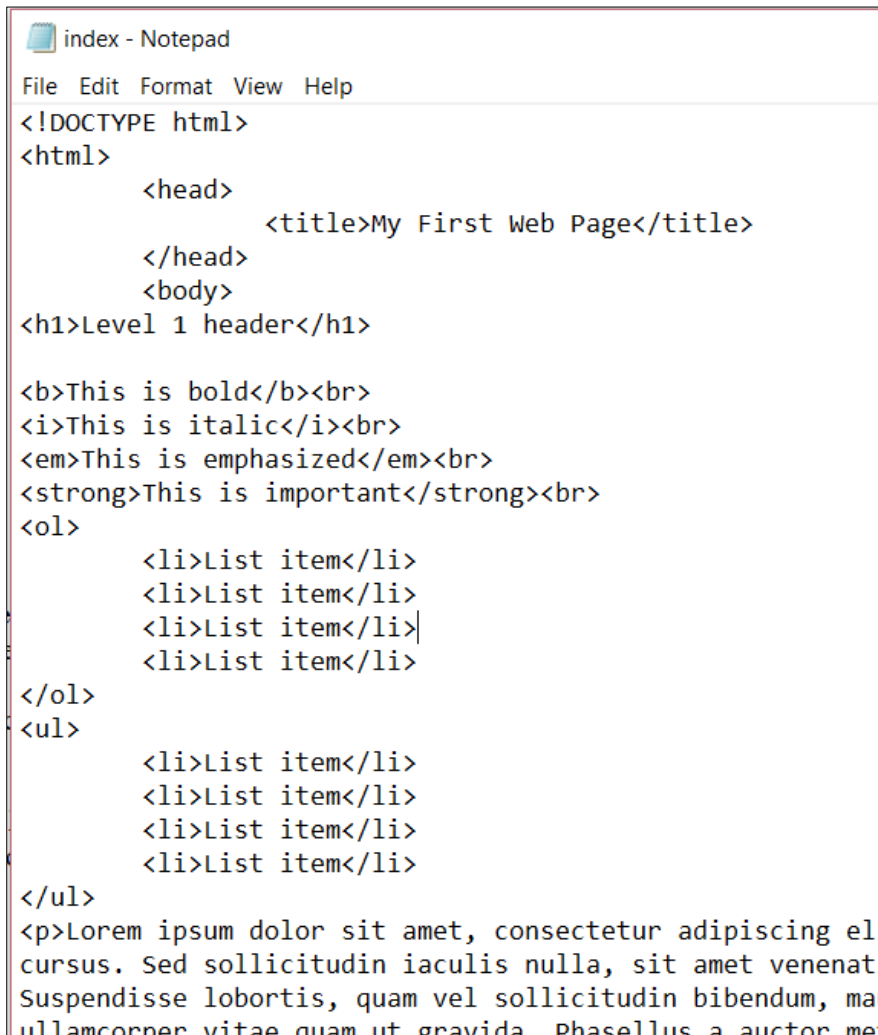
    <p>Aenean tellus dui, bibendum id mauris eget, feugiat efficitur fel
    risus vitae, eleifend efficitur elit. Nulla nulla enim, finibus eget
    lorem, at varius tortor vehicula eu. Integer dictum massa laoreet eg
    tempus lacus. </p>
  </body>
</html>
```

-

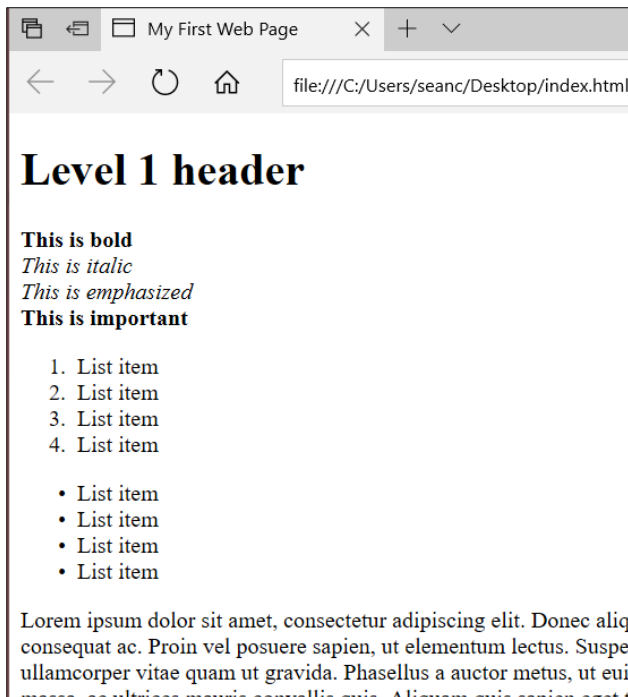
- Save and refresh your website, you should see the following



- 
- Another method of dealing with text is in lists, in html we have two methods, ordered and unordered lists. Add the following code to your website.



- Save and view the page



With HTML 5, a common method of controlling how text looks is with the use of span and div tags, these tags are then controlled using styles. There are 3 locations for styles:

- Inline
  - o Styling occurs on the syntax, syntax is the html language.
- Embedded
  - o These styles are on the same page, yet located in the style tags in the header
- External
  - o The styles are stored in a separate file and shared between web pages. The extension of these files are .css

Span and div are used to encapsulate content. The primary difference between them is that div will end with a line break, whereas span will only effect the element that it encapsulates.

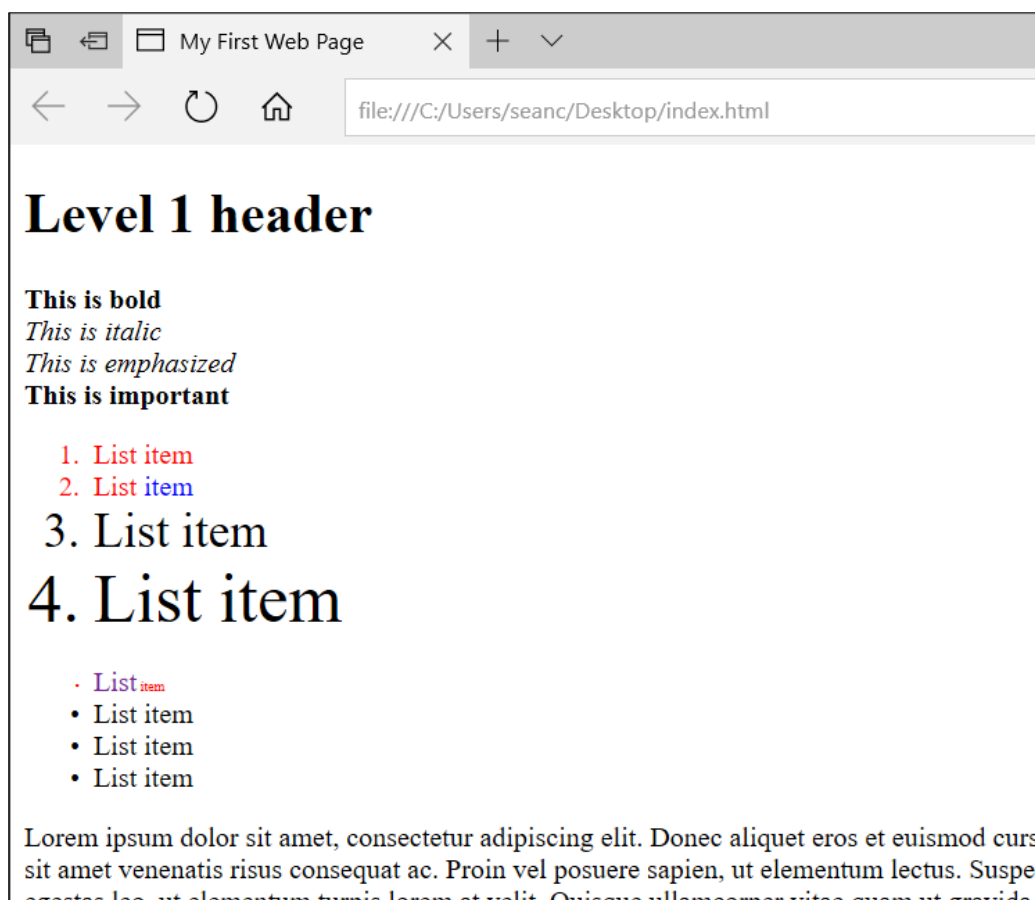
To show case span and inline styles, modify the code the following way:



```
index - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
<h1>Level 1 header</h1>

<b>This is bold</b><br>
<i>This is italic</i><br>
<em>This is emphasized</em><br>
<strong>This is important</strong><br>
<ol>
  <li style="color:red;">List item</li>
  <li style="color:red;">List <span style="color:blue;">item</span></li>
  <li style="font-size:28px;">List item</li>
  <li style="font-size:2.5em;">List item</li>
</ol>
<ul>
  <li style="color:red;font-size:8px;"><span style="color:#772299; font-size:2em;">List</span> item</li>
  <li>List item</li>
  <li>List item</li>
  <li>List item</li>
</ul>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec aliquet eros et euismod cursus. Integer laoreet tris
cursus. Sed sollicitudin iaculis nulla, sit amet venenatis risus consequat ac. Proin vel posuere sapien, ut elementum
```

Save and test



As you can see, it's possible to manipulate styles within blocks of encapsulation. Colours for text are written in American English, hence the term color, not colour. And that colours can be displayed as

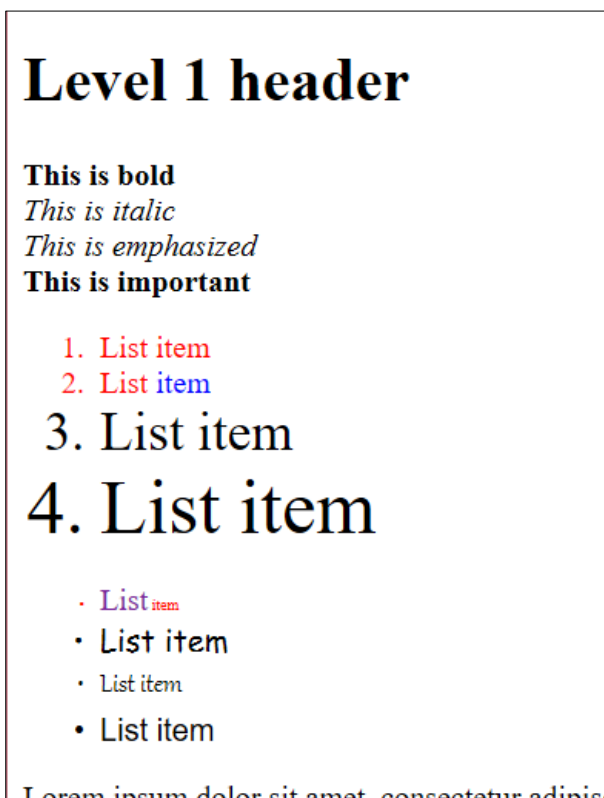
either words, or in hex format. Linking styles together is also possible as long as each style modification is separated by a semi-colon.

Now, let's look at fonts. Fonts enable a web developer to change the base look of a section of text. Make the following modifications to your code.

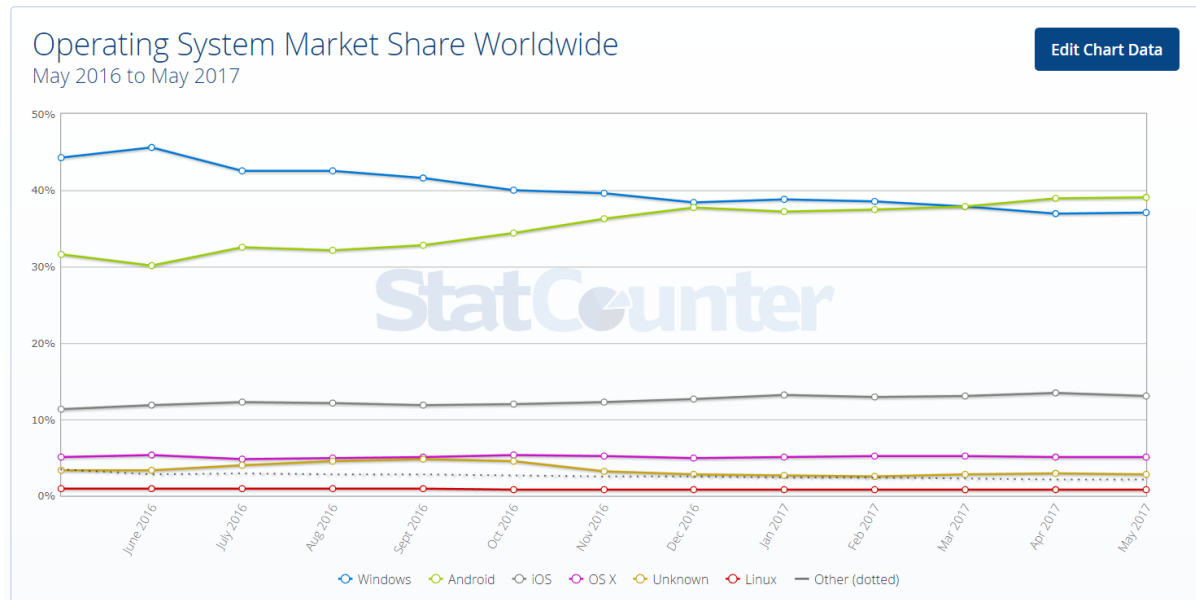
```
<!DOCTYPE html>
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
<h1>Level 1 header</h1>

<b>This is bold</b><br>
<i>This is italic</i><br>
<em>This is emphasized</em><br>
<strong>This is important</strong><br>
<ol>
  <li style="color:red;">List item</li>
  <li style="color:red;">List <span style="color:blue;">item</span>
  <li style="font-size:28px;">List item</li>
  <li style="font-size:2.5em;">List item</li>
</ol>
<ul>
  <li style="color:red;font-size:8px;"><span style="color:#772299;">
  <li style="font-family: cursive;">List item</li>
  <li style="font-family: fantasy;">List item</li>
  <li style="font-family: Arial;">List item</li>
</ul>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec aliquet
cursus. Sed sollicitudin iaculis nulla, sit amet venenatis risus consequat
```

Save and test, should give the following result



Notice how there is a couple of generic fonts used, cursive and fantasy followed by a specific font family. There are a large group of fonts which can be used, but the primary goal is to use a font that can be seen on most devices. As such, Helvetica will not be shown on non mac computers. Below is a chart showing the current systems which are used in the world.



(<http://gs.statcounter.com/os-market-share>)

In summary:

- From May 2016 to May 2017 is the above chart, using the latest details you can see from all devices, desktop, mobile and tablet that Helvetica enable devices are not the primary audience.
  - Android – 39.17%
  - Windows – 37.03%
  - IOS – 13.04%
  - OSx – 5.12%
  - Unknown – 2.8%
  - Linux – 0.75%

The moral, when selecting a font for a website, ensure that it is available to all potential operating systems.