**Lab Manual**

**Web Programming**

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| **Name:** | **ARUNMUGILAN A/L SARGUNAN** |
| **Matric Num:** | **S63746** |
| **Semester:** | **3** |
| **Lab:** | **1** |
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# http://4.bp.blogspot.com/-oTjPYRoSEnY/UhSDZVwdhkI/AAAAAAAABa4/iAzGvUxcjRQ/s1600/html+tutorial+-+web+programming.jpgInstructions:

This lab manual is for use by students of the Faculty of Ocean Engineering Technology and Informatics, Universiti Malaysia Terengganu (UMT) only. Not allowed to print and distribute this manual without official permission of the author.

# Please follow the step by step as described in the manual. Tick ​​(√) each step has been created and write the conclusion of each activity has been completed. Conclusion of each activity must be written in a file named according to the following format:

# [nomatrik] \_ [LabX]. docx. Replace the 'X' with your lab session. Examples of correct file name is 'UK12345\_Lab1.docx'.

# Please prepare assignments with individual effort without any 'copy-paste' from other parties.

Best of luck!

# Introduction to Internet Browser

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| **Objective:** | | Recognize the various types of internet browsers. | |
| **Description:** | | Internet Browser consists of various types. | |
| **Step-by-Step** | | | **Finish? (√)** |
| Step 1: | Click on the Google Chrome, Internet Explorer, Mozilla Firefox and Microsoft Edge. | | **/** |
| Step 2: | Type url http://www.umt.edu.my. | | **/** |
| Step 3: | Observe whether there is any difference in the performance and output order issued by all three browsers (if any). | | **/** |
| Step 4: | Type any other url (example:  http://www.google.com) in all three browsers available. | | **/** |
| Step 5: | Do a search and look for other browsers from three browsers above. | | **/** |

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| **Conclusion:** | **Mozila firefox**    **Google chrome**    **Microsoft edge**  Microsoft edge is more disarranged and not aligned compared to google chrome and mozila firefox. Google chrome is the fastest browser. There is some slight differences between google chrome and mozilla firefox. Such as the scrollbar colour and the animations. |

# Introduction to Hyper Text Mark Up Language (HTML): Part 1

## A) Exploring HTML Source Code

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| **Objective:** | | Recognize HTML used to create web pages. | |
| **Description:** | | HTML is a mark up language that makes a website more interesting and interactive. HTML describes how a web page displayed in a web browser. | |
| **Step-by-Step** | | | **Finish? (√)** |
| Step 1: | Type http://www.umt.edu.my url in Google Chrome web browser. | | / |
| Step 2: | Click the right mouse button. Make sure the cursor (or arrow) is placed on the webpage. | | / |
| Step 3: | Left mouse click on the option "View Page Source". | | / |
| Step 4: | Note that the output is displayed. You'll find a labyrinth of words and difficult to understand. Do not worry because most of you will understand this word from time to time. | | / |
| Step 5: | Press CTRL + F and type in the words below at a time.   1. html 2. head 3. title 4. body 5. h1 6. li | | / |
| Step 6: | Note that each word is flanked by signs <> or signs </>. | | / |
| Step 7: | What observations can you make from these measures? Is every word like html, title, body, etc. appear in pairs? | | / |
| Step 8: | Compare the displayed output between normal view and display the "View Page Source". Note that the words are flanked by <title></ title>, <h1><h1> and others. Get the position of the words in normal view. | | / |
| Step 9: | Try accessing other websites and see if these words also appear if you "View Page Source". | | / |
| Step 10: | You can follow the steps above using a different browser such as Mozilla Firefox or Internet Explorer. | | / |

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| **Conclusion:** |  |

## B) Write HTML Code

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| **Objective:** | | Writing html code using basic HTML tags. | |
| **Description:** | | HTML design files consist of the basic tags that have been defined by World Wide Web Consortium (W3C). http://www.w3.org/. Every construction site must comply with the basic framework so that the page can be displayed correctly. | |
| **Step-by-Step** | | | **Finish? (√)** |
| Step 1: | Open Notepad software in your Windows operating system. | | / |
| Step 2: | Type the HTML code below into the Notepad editor:  <html>  <body>  <h1>Selamat Datang ke Pusat Pengajian Informatik dan  Matematik Gunaan (PPIMG)</h1>  <p>PPMIG merupakan salah satu pusat pengajian yang  terdapat di UMT.</p>  </body>  </html> | | / |
| Step 3: | Save your files as page1.html. (Make sure you choose Save as type: All Files and not Text Documents in the Save As dialog box ...)  Note: Save your files in a convenient for you to access. For example, in MyDocuments or Desktop. Make sure you provide a folder named with your matrix as UK12345. Upon completion of the laboratory session, copy the folder to the thumb drive and do not leave your lab work scattered in the computer lab. | | / |
| Step 4: | Double-click on the file icon that has been saved. Observe the output. | | / |
| Step 5: | Type the HTML code below into the Notepad editor.  <html>  <body>  <h1>Selamat Datang ke Pusat Pengajian Informatik dan  Matematik Gunaan (PPIMG)</h1>  <p>Klik link di bawah untuk akses laman web UMT.</p>  <p><a href="http://www.umt.edu.my">Link ke web UMT.</a></p>  <p><a href="page1.html">Link ke Page 1.</a></p>  </body>  </html> | | / |
| Step 6: | Save your files as Page2.htm. | | / |
| Step 7: | Double-click on the file icon has been saved. Observe the output. Is there a difference between a file saved using the extension. html and. htm?  Does HTML tags are also displayed in a web browser? | | / |

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| **Conclusion:** | **Page 1**    **Page 2**  **There is some difference between html and htm. Such as page 2 got a couple of links that lead to umt website and page 1. And page 1 with html tag does not have. The tags are also displayed in a web browser.** |

## C) Understanding HTML Elements and Attributes

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| **Objective:** | Recognize the elements of HTML |
| **Description:** | HTML documents are defined by HTML elements. HTML element tag starting from the beginning until the end tag. For example:  <h1> This is the title </ h1>  <h1> refers to the start tag.  "This is the title" refers to the content element.  </ h1> refers to the tag end.  However, there is also a tag that does not have content, such <br> tags, known as empty elements. |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create an HTML file named as elemen.html. | / |
| Step 2: | Type the html code below into a new file which you have created.  3.jpg | / |
| Step 3: | Type the HTML elements below between <body>and</body>4.jpg | / |
| Step 4: | Save the newly edited file and click on the file to see the output displayed.  Note: HTML tags are not case-sensisitive <H1> meaning is the same tag <h1>. However, the World Wide Web Consortium (W3C) recommends the use of lowercase letters to uppercase HTML tags compared. | / |

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| **Conclusion:** |  | |
| **Objective:** | Recognize the HTML Attributes |
| **Description:** | HTML elements can have its own atrributnya. Attributes provide additional information about an element. Attributes are always placed at the start and shaped tag pair name / value. For example, name = "value" |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | HTML links are defined by tag <a>. Type the code below and save as attribut.html.  5.jpg | / |
| Step 2: | Click on the file and see the output displayed. You will see that the output is displayed in the form of plain text that cannot be clicked. | / |
| Step 3: | Modify <a> tag by entering the attribute named href:  6.jpg | / |
| Step 4: | Restore files that have been modified and see the output. | / |
| Step 5: | Identify the attributes and values ​​of the HTML element that is used.  Note: Make sure you always write attribute value with double quote "". Signs can also be used single quotes'' especially if the attribute value itself has a double quote mark. For example: name = 'University "Malaysia" Terengganu ‘ | / |

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| **Conclusion:** | **Before modifying**    **After modifying** |

## D) Headings, Paragraphs and Text Format

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| **Objective:** | | Recognize Headings, Paragraph and Text Format. | |
| **Description:** | | Headings <h1>, <h2> ... <h6> serve more than just the title of the web site. Search engines use headings to index the structure and content of your website. Priority to the subject arranged in the order of h1, h2, to h6.  Paragraph (paragraph) tags defined by <p></ p>. By using this tag, the browser will automatically add an empty line to separate the first paragraph with the following paragraph.  The text in HTML can be formatted according to either bold, italic, subscript, superscript and so on. | |
| **Step-by-Step** | | | **Finish? (√)** |
| Step 1: | Create a file using Notepad and rename the file as heading.html. | | / |
| Step 2: | Copy the code below into a new file that is created.  <html>  <body>  <!—Sebagaimana pengaturcaraan Java, bahagian komen ini tidak memberi sebarang kesan kepada output yang ingin dipaparkan.-->  <h1>Universiti Malaysia Terengganu</h1>  <h2>Pusat Pengajian Informatik dan  Matermatik Gunaan</h2>  <h3>Program SMSK(KP) & SMSK dgn. IM </h3>  <p>Dua program yang dinyatakan di atas merupakan program dalam bidang sains computer yang ditawarkan di PPIMG.</p>  <p>Antara bahasa pengaturcaraan yang diajar kepada para pelajar bagi dua program tersebut ialah <i>JAVA</i>  Contoh kod <i>JAVA</i> adalah sebagaimana di bawah:  <br/><code>System.out.println(“Assalamualaikum & Salam Sejahtera!”)</code></p>  </body>  </html> | | / |
| Step 3: | Save the file and click the icon to view the output files that appear. | | / |
| Step 4: | Examine how the output is formatted and displayed in a web browser. State what the tag <hr/>, <b>, <br/>, <i> and directive. Note also the role tag <! ----> In an HTML document.  Note: Never use heading tags to bold the words. Write it like this, <b> Tag </ b>.  <br> or <br/> can be used but the use <br/> are preferred. | | / |

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| **Conclusion:** | <hr/> means  <b> will bold the word  <br/> means break and acts as an enter button.  <i> will make the font look italic  <! ----> this part of coding has no effect on the output. |

## E) Links or Hyperlinks

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| **Objective:** | Recognize hyperlinks (Link) and its Attributes |
| **Description:** | Hyperlink or Link widely used for navigation purposes the documents on the website. In addition to text, links can also be created using the image. Cursor is moved to share a link will change to the 'small arms'.  <a> Tag used for the link can be used in 2 ways:  - To link document to another document by using the href attribute.  - To create a bookmark in the document by using the attribute name. |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create a new file named faqumt.html. | / |
| Step 2: | Type the HTML code below into a new file that is created.  8.jpg | / |
| Step 3: | Save the edited file and click on the file to see the output. | / |
| Step 4: | Scrolls your web browser up to the top. Then, click on the question to 7. Note, the browser will automatically download the answers to questions to 7 can be seen. | / |

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| **Conclusion:** |  |

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| **Objective:** | Using the target attribute in hyperlinks. |
| **Description:** | Target attribute is used in the hyperlink to open the link in a new window or tab. |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create a file named targetlink.html. | / |
| Step 2: | Copy the code below into a new file that is created.  9.jpg | / |
| Step 3: | Save and click on the file icon. Note that the output is displayed. You'll find UMT website featured in a new window. | / |

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| **Conclusion:** | Umt website is featured in a new window. |

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| **Objective:** | Inserting images into HTML documents |
| **Description:** | <img> Tag is used to insert an image into an HTML document. <img> Tag is an empty tag which means it does not require any end tag.  Src attribute means the source is used to specify the URL (the location where the image is saved). Alt attribute is used as alternative text if the image can not be displayed. Height and width attributes are used to set the height and width of an image. |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create a file named imej.html. | / |
| Step 2: | Type the html code below into the file.  10.jpg | / |
| Step 3: | Make sure the images are in the folder porsche.jpg images. Note: Please do an image search on Google search for Porsche image. Use the right image. | / |
| Step 4: | Save file imej.html and click on the icon files to see the results display.  Note: Instead of using images that are in the local computer, the images can also be accessed through http: As example,  <img src = "http://www.abc.com/images/abc\_img.jpg" alt = "image from abc. com "width =" 104 "height =  " 142 "/> | / |

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| **Conclusion:** |  |

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| **Objective:** | Make images as links in HTML documents. |
| **Description:** | Apart from the text, images can also be used as hyperlinks (links). |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create a file named imejlink.html. | / |
| Step 2: | Type the HTML code below into a new file which you have created.  <html> <body> <p>Create a link of an image: <a href="http://www.umt.edu.my"> <img src="umtlogo.jpg" alt="umt logo" width="32" height="32" /> </a></p> <p>Link imej tanpa border: <a href="default.asp"> <img border="0" src="umtlogo.jpg" alt="umt logo" width="32" height="32" /> </a></p> </body> </html>  Note: umtlogo.jgp is the image of the logo UMT. Please do a search on Google if it is not found on your desktop. | / |
| Step 3: | Save imejlink.html and click on the file to see the output. | / |

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| **Conclusion:** |  |

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| **Objective:** | Recognize HTML Table. |
| **Description:** | HTML tables or table used to display the data in tabular form and also used to layout a web page. It is defined by the tag <table> and consists of rows (row) and column (column), which is also known as the cell data.  The title of a column is represented by <th> tag, a table row is represented by the tag and the columns represented <tr><td> tag. <td> Tag can contain text, links, images, lists, forms and other table. List and the form will be introduced in the next activity. |

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| **Step-by-Step** | | **Finish? (√)** |
| Step 1: | Create a file named as jadual.html. | / |
| Step 2: | Type the code below into a new file is created.  2.JPG | / |
| Step 3: | Save the file and click on the file to see the results display. | / |
| Step 4: | Modify the HTML code above to change the border attribute value from 1 to 0. | / |
| Step 5: | Save the modified file and click to display. Watch for changes to the display. Border line is no longer visible.  Note: Attributes colspan used to combine columns (column). For example, if you want to combine 3 columns, then you have to type colspan = 3 while if you want to combine 2 rows, then you have to type rowspan = 2. | / |

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| **Conclusion:** | **Before modification**    **After modification** |
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