

INFORMATION AND COMPUTER STUDIES

Form Three

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Chapters to be covered

””

Chapter Four

WEB DEVELOPMENT

- ❖ Concept of webpage
- ❖ System software
- ❖ Webpage structure
- ❖ Webpage design

CONCEPT OF WEBPAGE

A web page is a document commonly written in Hyper text mark-up language (HTML) that is accessible in internet or other networks using web browser.

- Website are coming from collection of various webpages.
- These can be accessible via internet connection or local host.
- Webpage identified by uniform resource locator (URL)

- Information in webpage is written in notepad or notepad++ using HTML that is visible through the screen or output devices.
- Example of webpage.



Properties of quality webpage design

This are things to consider when creating a standard and quality webpage;

i. User –friendly navigation

When you design a website make sure navigation menus are simple and self –explanatory.

ii. Webpage speed

When the website is slow the visitors can't reach and access the website. Make sure it have speed.

iii. **Visuality attractive image**

One of the quality of well-designed website includes having good quality.

iv. **Responsive design**

This refer to the ability of the website to be capable with different devices.



Importance of webpage design

i. Impressing your audience

The more impressive the website makes visitors become positive about it.

ii. Creating trust to your audience

This means you have to build website with updated information so can win visitors trust.

iii. Consistency in branding your online business

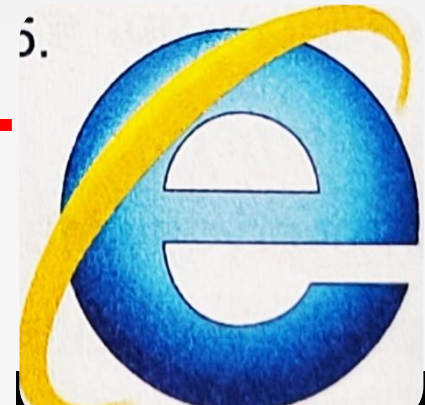
A website should be consistent and professional to keep customers.

Accessing the website

- Website

Is the collection of related webpages.

- It can be accessed by using web browser.
- Web browser is an application software for accessing information on the world wide web. Such as Microsoft edge, google chrome, opera mini, safari and mozilla



NOTE

- WWW (world wide web) is a system of Internet servers that supports hypertext to access several Internet protocols on a single interface.
- The World Wide Web has its own protocol called Hypertext Transfer Protocol (HTTP).
- Home page The beginning "page" of any site.
- Search engine is an online system that helps people find information on the internet by typing keywords or questions. Eg Google

Importance of website

- i. Website save time and cost
- ii. It offer service flexibility for 24 hours seven days a week.
- iii. Websites are used by media houses such as TV station, radio and newspaper to sell and publish news and other information
- iv. Websites are by individual or institution to publish learning and teaching resources in different formats such as videos, audios and etc.

WEBPAGE STRUCTURE

- A webpage structure refer to the way pages of your site are linked to another.
- Through the webpages structure is where we form the website.

HTML document structure

- This contain three basic elements or tags, namely;

- a) Html
- b) Head
- c) Body

Tags are codes or command that describe how the contents of the webpage should be displayed on the web browser.

NB: before coding must have an output so can help you to choose code for your webpage.

Understanding HTML

- This is the language that used to create webpages and all web browser understand the language.
- What you see in the website is the result of HTML.

HTML tags

- Tags come in pairs: an opening one and closing one.
- Example
<HTML> is the opening tag
</HTML> is the closing tag.

NOTE:

There are some tags work without closed tags, these are
, <hr> and

Attributes

- Are used to provide additional information to tags.
- Attributes come in pair as same as name and value.

For example `<TD align="left">`, the align represent name and left represent value.

Elements

- An element is made up of three parts namely starting tag, content and end tag.

- Example

`<body>`

Task is life.

`</body>`

NB: tags and attributes are not sensitive. It is possible to mix upper case and lower case.

Syntax / basic structure of an HTML document

```
<!DOCTYPE html>
```

```
<HTML>
```

```
<HEAD>
```

```
  <TITLE>The Page Title</TITLE>
```

```
</HEAD>
```

```
<BODY>
```

These contents are displayed in the web page

```
</BODY>
```

```
</HTML>
```

NOTE:

<html> is the root element of an HTML page

<head> contains meta information about the document

<title> specifies a title for the document which appears in the very top line of the user's browser.

<body> contains the visible page contents.

HEADINGS

```
<HTML>  
<HEAD>  
<TITLE> Example Page</TITLE>  
</HEAD>  
<BODY>  
<H1> Heading 1 </H1>  
<H2> Heading 2 </H2>  
<H3> Heading 3 </H3>  
<H4> Heading 4 </H4>  
<H5> Heading 5 </H5>  
<H6> Heading 6 </H6>  
</BODY>  
</HTML>
```

Paragraphs

- The special tags for paragraph in the webpage design.

`<p>.....</p>`

- It can be applied in the content of the body tag.
- Example

```
<body>  
<p> Today is my birthday </p>  
</body>
```

- Some other tags are;
 - i. `<br>` means break line
 - ii. `<hr>` means horizontal line
 - iii. `<img>` means image
 - iv. `<i>` or `<cite>` means italic or citation
 - v. `<strong>` or `<b>` means bold
 - vi. `<div>` means division
 - vii. `<sup>` means superscript
 - viii. `<sub>` means subscript

Background and text color

- This help you to set any background color and fonts color to your webpage

a) Background color (BGCOLOR)

```
<BODY BGCOLOR="blue">..  
</BODY>
```

b) Text color

We only add text attribute as shown bellow;

```
<BODY BGCOLOR="blue" TEXT="green">..  
</BODY>
```

- Other ways of changing text color and size using fonts tag `<FONT>`

`<font color="green" size="3">...</font>`

ALIGNMENT

This help you to align your content either left, right or center.

- `<p align="value">.....</p>`

Value can be either left, right or center.

Sometimes can use center it self as tag,
`<center>...</center>`

Image background

This is specifically for setting an image as background to your webpage.

```
<BODY BACKGROUND="MJP.jpg">..</BODY>
```

FORM

- Form used when you want to collect some data from visitors. its tag is `<form>..</form>`.

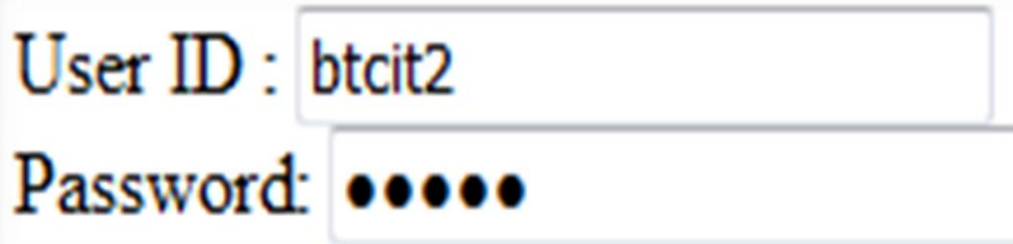
There are different types of form controls that you can use to collect data using HTML form:

- i. Text Input Controls
- ii. Checkboxes Controls
- iii. Radio Box Controls
- iv. Select Box or dropdown Controls
- v. File Select boxes
- vi. Submit and Reset Button

i. Text Input Controls

`<input type="password" name="user ID"/>`

Type can be, email, password, text and etc.



User ID : btcit2

Password: ●●●●●

ii. Checkboxes Controls

This allow user to select multiple items

`<input type="checkbox" name="maths" >`

Maths `<input type="checkbox" name="physics" >` Physics

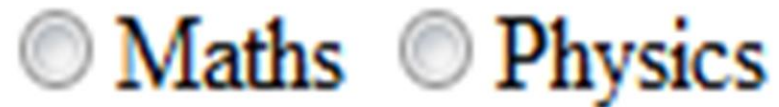


☐ Maths ☐ Physics

iii. Radio Box Controls

If for making single selection.

- `<input type="radio" name="subject">Maths`
`<input type="radio" name="subject">Physics`



iv. Select Box or dropdown Controls

- It provide option list and allow user to select from it. `<select name="dropdown">`

`<option>Maths</option>` `<option>Physics`
`</option>`

- `</select>`



v. File Select boxes

Used to allow user to upload file to the website.

```
<input type="file" name="fileupload" />
```



vi. Submit and Reset Button

```
<input type="submit" name="submit" value="Submit" />
```

```
<input type="reset" name="reset" value="Reset" />
```

```
<input type="button" name="ok" value="OK" />
```



Multiple-Line Text Input Controls

- This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML `<textarea>` tag.

Description :

Enter description
here...

NOTE:

In form tag, can add some attribute like;

a) METHOD = post, get

b) ACTION =(set receiver address)

List Elements

- HTML supplies several list elements. Most list elements are composed of one or more `<LI>` (List Item) elements.
- **UL** : Unordered List. Items in this list start with a list mark such as a bullet. Browsers will usually change the list mark in nested lists.

`<UL>`

`<LI>` List item ...`</LI>`

`<LI>` List item ...`</LI>`

`</UL>`

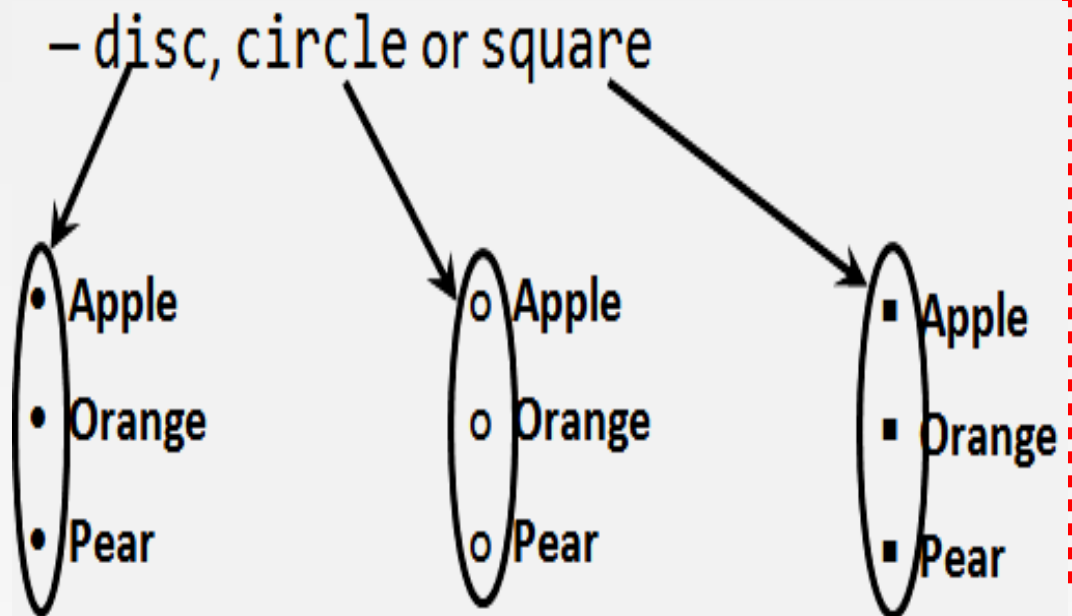
- Attribute values for type element are: **disc**, **circle** or **square**

<UL TYPE="square">

 List item ...

 List item ...

 List item ...



Orderd list (OL)

OL: Ordered List. Items in this list are numbered automatically by the browser.

`<OL>`

`<LI> List item ...</LI>`

`<LI> List item ...</LI>`

`<LI> List item ...</LI>`

`</OL>`

1. List item ...

2. List item ...

3. List item...

- You have the choice of setting the TYPE Attribute to one of five numbering styles.

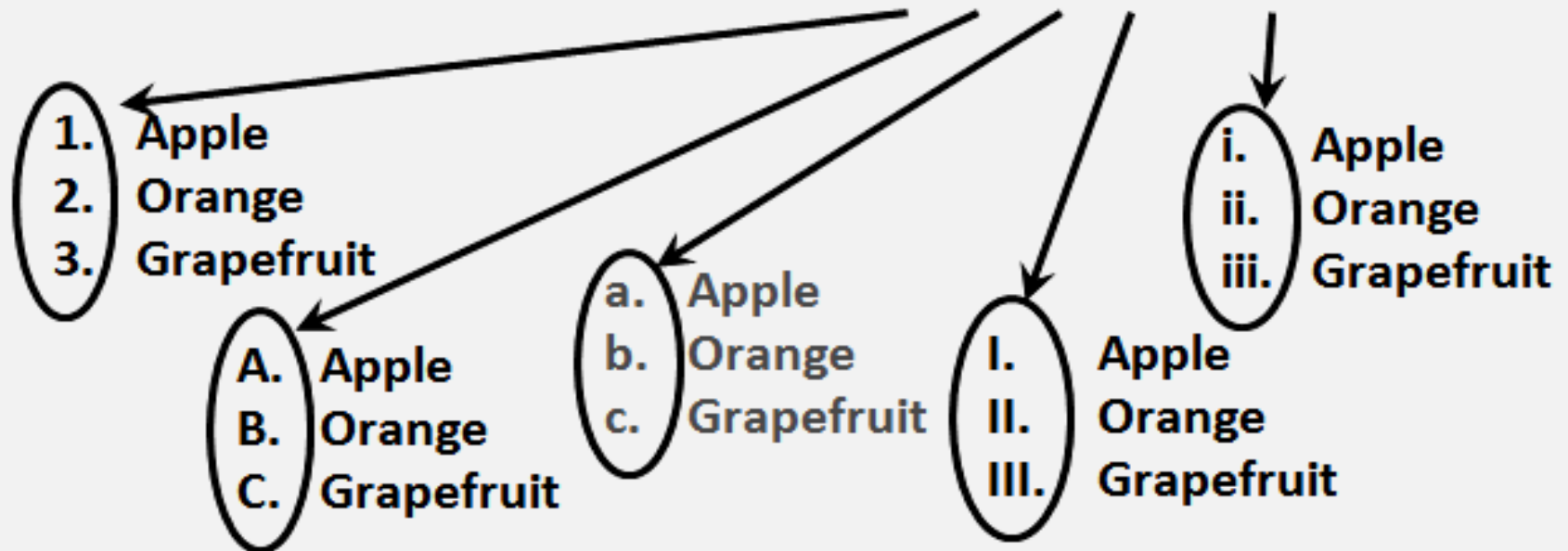
You can specify a starting number for an ordered list.

<OL TYPE = "i">

**** List item ...****

**** List item ...****

- Attribute values for type are 1, A, a, I, or i



Definition list (DL)

- **DL: Definition List.** This kind of list is different from the others. Each item in a DL consists of one or more **Definition Terms (DT elements)**, followed by one or more **Definition Description (DD elements)**.

<DL>

<DT> HTML </DT>

<DD> Hyper Text Markup Language </DD>

<DT> ICT </DT>

<DD> Information Communication Technology</DD>

</DL>

HTML

Hyper Text Markup Language

DOG

A human's best friend!

HTML MARQUEES

- An HTML marquee is a scrolling piece of text displayed either horizontally across or vertically down your webpage depending on the settings. This is created by using HTML `<marquees>` tag.

- Syntax

A simple syntax to use HTML `<marquee>` tag is as follows:

- `<marquee attribute_name="attribute_value" direction="left">` One or more lines or text message or image `</marquee>`

• NOTE

MARQUEE can have attribute like;

a) Direction this include;

up, down, left, right and center

b) Behavior this include;

scroll, slide, alternate

HTML FRAMES

- HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document.
- A collection of frames in the browser window is known as a frameset.
- To use frames on a page we use `<frameset>` tag instead of `<body>` tag.

- Following is the example to create three horizontal frames:
- `<frameset rows="10%,80%,10%">`
- `<frame name="top"`
`src="/html/top_frame.htm" />`
- `<frame name="main"`
`src="/html/main_frame.htm" />` `<frame`
`name="bottom"`
`src="/html/bottom_frame.htm" />`
`</frameset>`

- NOTE:
- In frameset also can set for, horizontal and vertical (rows and cols).
- Number of frames are determined by % and the <frame>.
- the page estimates to have 100% width and height

TABLES

The `<TABLE>` `</TABLE>` element has four sub-elements:

1. Table Row `<TR>` `</TR>`.
2. Table Header `<TH>` `</TH>`.
3. Table Data `<TD>` `</TD>`.

- The table row elements usually contain table header elements or table data elements.

Example;

```
<table border="1">
```

```
<tr>
```

```
<th> Column 1 header </th>
```

```
<th> Column 2 header </th>
```

```
</tr>
```

```
<tr>
```

```
<td> Row1, Col1 </td>
```

```
<td> Row1, Col2 </td>
```

```
</tr>
```

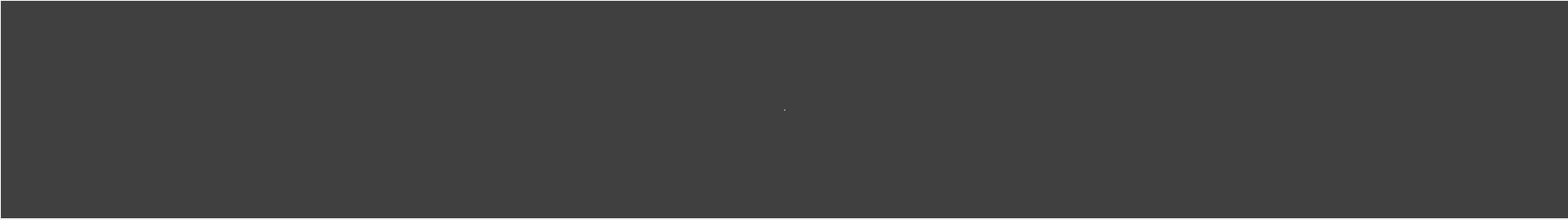
```
<tr>
```

```
<td> Row2, Col1 </td>
```

```
<td> Row2, Col2 </td>
```

```
</tr>
```

```
</table>
```



Asante sanaa!