INTERNET PROGRAMMING

HYPER TEXT MARKUP LANGUAGE :-

HTML stands for Hyper Text Markup Language An HTML file is a text file containing small

Markup tags

The markup tags tell the Web browser how to display the page

AN HTML file can be created using a simple text editor

HTML tags are surrounded by the two characters <and>

The surrounding characters are called angle brackets

HTML tags normally come in pairs like and

The first tag in a pair is the start tag, the second tag is the end tag

The text between the start and end tags is the element content

HTML tags are not case sensitive, means the same as <B>

This HTML element starts with the start tag <body>, and ends with the end tag</body>.

The purpose of the <body> tag is to define the HTML element that contains the body of the HTML document.

Headings.

Headings are defined with the <h1>to<h6>tags.<h!> defines the largest heading . <h6> defines the smallest heading.

Closing Tag

You might have noticed that paragraphs can be written without end tags

Line Breaks

The
tag is used when you want to break a line. But don't want to start a new paragraph. The
 tag forces a line break wherever you place it.

Comments in HTML

The comment tag is used to insert a comment in the HTML source code. A comment will be ignored by the browser. You can use comments to explain your code. Which can help you when you edit the source code at a later date.

Each HTML element has an element name (body, hk, p, br)

The start tag is the name surrounded by angle brackets: <hl>

The end tag is a slash and the name surrounded by angle brackets </hl>

The element content occurs between the start tag and the end tag

Some HTML elements have no content

Some HTML elements have no end tag

Tag	Description
<html>	Defines an HTML documents
<body>	Defines header 1 to header 6
	Defines a paragraph
 	Inserts a single line break
<hr>	Defines a comment
<!->	Define horizontal rile

Tag	Description
	Defines bold text
<big>	Defines big text
	Define emphasized text
<i>	Defines italic text
<small>	Defines small text
	Defines strong text
<sub>	Defines subscripted text
<sup>	Defines superscripted text
<ins>	Defines inserted text
<del>	Defines deleted text
<s>	Deprecated. Use <del> instead.
<strike>	Deprecated. Use <del> instead.
<u>	Deprecated. Use styles instead
<ins>	element is displayed in inserted text
<del>	element is displayed in deleted text
<big>	element is displayed one font size larger than the rest of the text surrounding
<small>	element is displaye one font size smaller than the rest of the text surrounding

Tag	Description
<code>	Defines computer code text
<kbd>	Defines keyboard text
<samp>	Defines sample computer code
<tt.>	Defines teletype text
<var>	Defines a variable
<pre>	Defines preformatted text
<listing>	Deprecated Use <pre> instead

<plaintext>	Deprecated Use <pre> instead
<xmp>	Deprecated Use <pre> instead

HTML TAGS:

HTML is a markup language and makesuse of various tags to format the content. The tags are enclosedwithinanglebrace<tag name>. Except few tags, most of the tags have their correspondig closing tag.

Tag	Description
<!DOCTYPE..>	The tag defines document type and html version.
<html>	This tag encloses the complete Html document and mainly comprises ofdocument header which is representedby <head>..</head> and document header which is represented by <head>..</head> and document body is represented by <body>...</body> tags.
<head>	The represents the documents header to keep another Html tags like <title>,<link> etc.
<title>	The tag used inside <head> tag tomention document title.
<body>	This tag representsthe documents body which keeps othe Html tags like <h1>, ,<p> etc.
<h1>	This tag represents heading
<p>	This tag represents a paragraph.

HTML DOCUMENT STRUCTURE:-

A typical HTML document will have the following structure.

```
Document Declaration Tag:
<html>
<head>
Document header related tags.
</head>
<body>
Document body related tags
</body>
</html>
```

HTML BASIC TAGS:

Any document starts with heading. You cna use different sizes of your heading. Htmlhas six levels of heading <h1>,<h2>,<h3>,<h4>,<h5>,<h6>. While displaying any heading, browser adds jone line before and one line afterthe heading.

Example:-

```
<!DOCTYPE>
<html>
<head>
<title>Heading Example</title>
</head>
<title>Heading Example</title>
</head>
<body>
<h1>This is heading1 </h1>
<h2>This is heading2 </h2>
<h3>This is heading1 </h3>
<h4>This is heading1 </h4>
<h5>This is heading1 </h5>
<h6>This is heading1 </h6>
</body>
</html>
```

Paragraph Tag:-

The <p> tag offers a way to structure your textg in different paragraphs.Each paragraph should be between opening and closing tag.

```
<!DOCTYPE>
<html>
<head>
<title>Paragraph Example</title>
</head>
<body>
<p>Here is first paragraph</p>
<p>Here is second paragraph</p>
</body>
</html>
```

Output:-

Here is first paragraph
Here is second paragraph

Centering Content:-

 tag is used to put any content in the centre of the page or any table cell.

Example:-

```
<!DOCTYPE>
<html>
<body>
<p>This text is not in center</p>
<center>
<p>This text is in center</p>
</center>
</body>
</html>
```

Output:-

This text is not in center
This text is in center

Horizontal Lines:-
Horizontal lines are used tovisually breakup section of a document. The <hr> tag creates a line from the current position in the document to the right margin and breaks the line accordingly

```
<!DOCTYPE>
<html>
<body>
<hr>
<p>This paragraph one should be on top</p>
<hr>
<p>This paragraoh two should be at bottom</p>

</body>
</html>
```

Output:-

This paragraph one should be on top

This paragraoh two should be at bottom

Generic Attributes:-
There are some attributes that are readily usable with many of the Html tags.

Options	Function
align right,left,center	Horizontally aligns tags
valign top,middle,bottom	Vertically aligns tag within an Html element bgcolor
Numeric,Hexadecimal, behind an element	Places a backgroundcolor RGB valuesid
User defined	Names an element for use with CSS
background URL	Places background image behind an element class
User defined	Names an element for use with CSS width Numeric value
	Specifies width of tables, images or table cells.
height Numeric value	Specifies height of tables, images or table cellstitle
	User defined elements

HTML FORMATTING:-
Bold text: Anything that appears within ... elements is displayed in bold
Italic text: Anything that appears within ... elements is displayed in italicized
Underlined text: Anything that appears within <u>...</u> element is displayed with underline.
Strike text: Anything that appears within <u>...</u> element is displayed with strike through it.
Example:-

```
<!DOCTYPE>
<html>
<head>
<title>Html Formatting </title>
</head>
<body>
<p>The followingt word uses a <b>bold</b>format</p>
<p>The followingt word uses a <i>italicized</b>format</i>
<p>The followingt word uses a <u>underlined</u>format</p>
<p>The followingt word uses a <strike>strike through</strike>format</p>
</body>
</html>
```

Output:-
The following word uses a **bold** format
The following word uses a *italicized* format
The following word uses a underlined format
The following word uses a --strike through --format
SuperScript and SubScript Text:-
The content of^{.....}element is written in superscript the font size used issame size as thecharacterssurroundingiot but is displayed half a character's height above other character.
where as the content of_{.....} is displayed half a character height beneath the other characters.
Example:-

```
<!DOCTYPE html>
<html>
<head>
<title>Subscript and super script example </title>
</head>
<body>
<p>The following word uses a<sup>superscript</sup>type</p>
<p>The following word uses a<sub>subscript</sup>type</p>
</body>
</html>
```

- While… Wend statement – Do not use it – use the Do… Loop statement instead

ASP PROGRAMING

- ASP stands for Active Server Pages
- ASP is a program that runs inside IIS
- IIS stands for Internet Information Services
- IIS comes as a free component with **Windows 2000**
- IIS is also a part of the Windows NT 4.0 **Option Pack**
- The option Pack can be downloaded from Microsoft
- **PWS** is a smaller –but fully functional – version of IIS
- **PWS** can be found on your **Windows 95/ 98 CD**

Compatibility

ASP is a Microsoft Technology
To run IIS you must have windows NT 4.0 or later
To run PWS you must have Windows 95 or later Chili ASP is a technology that runs ASP without Windows OS
Instant ASP is another technology that runs ASP without Windows
ASP File:-
An ASP file is just the same as an HTML file
An ASP file can contain text. HTML… XML. And scripts
Scripts in an ASP file are executed on the server
An ASP file has the file extension ''asp"
ASP Vs HTML?

When a browser requests and HTML file. The server returns the file when a browser requests an ASP file, IIS passes the request to the ASP engine. The ASP engine reads the ASP file. Line by line, and executes the scripts in the file. Finally the ASP file is returned to the browser as plan HTML

Functions of ASP:-

- Dynamically edit. Change or ad any content of a web page
- Respond to user queries or data submitted from HTML forms
- Access any data or database and return the results to a browser
- Customize a Web page to make it more useful for individual users
- The advantages of using ASO instead of CGI and Perl, are those of simplicity and speed
- Provide security since your ASP code can not be viewed from the browser
- Clever ASP programming can minimize the network traffic

You cannot view the ASP source code by selecting "View source" in a browser, you will only see the output from the ASP file, which is plain HTML. This is because the scripts are executed on the server before the result is sent back to the browser

Syntax:

An ASP file normally contains HTML tags, just like an HTML file. However, an ASP file can also contain **server scripts.** Surrounded by the delimiters <% and %>. Server scripts are **executed on the server,** and can contain any expressions, statements, procedures or operators valid for the scripting language you prefer to use Write Output to a Browser
The response. Write command is used to write output to a browser. The following example sends the text "Hello World" to the browser:

```
<html>
<body>
<% response . write ("Hello World!")
</body>
</html>
```

VBScript is default scripting language for ASP hence on need to mention. Whereas the java script need to be mentioned separately.

To set Java Script as the default scripting language for a particular page you must insert a language specification at the top of the page:

```
<%@ language = "Javascrip"%>
```

Other Scripting Languages:

ASP is shipped with VBScript and JSeript (Microsoft's implementation of Java Script). If you want to script in another language. Like PERI..REXX. or Python, you will have a install script engines for them.

important. Because the Scripts are executed on the server, the browser that displays the ASP file does not need to support scripting at all!

Lifetime of Variables:

- A variable declared outside a procedure can be accessed and hanged by any script in the ASP file.
- A variable declared inside a procedure is created and destroyed every time the procedure is executed. No scripts outside the procedure can access or change the variable.
- To declare variables accessible to more than one ASP file. Declare them as session variables or application variables.

Session Variables:

Session variables are used to store information about ONE single user. And are available to all pages in one application. Typically information stored in session variables are name. Id. and preference.

Application Variables:

Application variables are also available to all pages in one application. Application variables are used to store information about ALL users in a specific application.

Differences Between VBScript and JavaScript in ASP:

When calling a VBScript or a JavaScript procedure from an ASP file written in VBScript you can use the "call" Keyword followed by the procedure name. If a procedure required parameters, the parameter list must be enclosed in parentheses when using the "call" keyword. If you omit the "call" keyword. The parameter list must not be enclosed in parentheses if the procedure has no parameters he parentheses are optional.

When calling a JavaScript or a VBScript procedure from an ASP five written in JavaScript, always use parentheses after the procedure name.

User Input:

The Request object may be used to retrieve user information from forms. User input can be retrieved in two ways: With Request . QueryString or Request.From.

Request Form

The Request.From command is used to collect values in a form with method ="Post" information sent from a form with the POST method is invisible to others and has no limits on the amount o information to send.

Form Validation:

User input should be validated on the browser whenever possible (by client scripts). Browser validation is faster and you reduce the server load. You should consider using server validation if the user input will be inserted into a database. A good way to validate a form on the server is to post the form to itself instead of jumping to a different page. The user will then get the error messages on the same page as the form. This makes it easier to discover the error.

Cookie:-

A cookie is often used to identify a user. A cookie is a small file that the server embeds on the user's computer. Each time the same computer requests a page with a browser, it will send the cookie too. With ASP, you can both create and retrieve cookie values.

The "Response.Cookies" command is used to create cookies.

Note: The Resposnse.Cookies command must appear BEFORE the <html>tag.

```
<%
Response.Cookies ("firstname")="saimedha"
%>
```

Setting a date when the cookie should expire:

```
<%
Response.Cookies ("firstname")="Alex"
Response.Cookies ("firstname").Expires=#May 10.2002#
%>
```

To Retrieve an Cookie Value?

The "Request.Cookies" command is used to retrieve a cookie value.

In the example below, we retrieve the value of the cookie named "firstname" and display it on a page:

```
<%
Fname =Request. Cookies ("firstname")
Response. Write ("Firstname="fname)
%>
```

Session Object :-

The Session object is used to store information about, or change setting for a user asession. Variables stored in the Session object user, and are available to all pages in one application .

A session starts when :-

A new user requests an ASP file, and the Global.asa file includes a Session OnStart procedure

A value is stored in a Session variable

A user requests an ASP file, and the instantiate an object with session scope

A Session Ends when

- A session ends if a user has not requested or refreshed a page in the application for a specified period. By default 5, this is 20 minutes
- If you want to set a timeout interval that is shorter or longer than the default, you can set the **Timeout** property

* To end a session immediately you may use the

Abandon method :-

Remove Session Variable :-

The Contents collection contains all session variables. It is possible to remove a session variable with the Remove method.

Loop Through the Contents Collection :-

The Contents collection contains all session variables. You can loop through the Contents collection.

Application :-

A group of ASP files that work together to perform some purpose is called an application. The Application object in ASP is used to tie these files together.

Application Object

An application the web may be a group of ASP files. The ASP files work together to perform some purpose. The Application object in ASP is used to tie files together.

The Application object is used to store and access variables from any page just like the Session object. The difference is that ALL users share one Application object for EACH user.

The Application object should hold information that will be used by many pages in the application (like database connection information). This means that you can access the information from any page. It also means that you can change the information in one place and the change will automatically be reflected on all pages.

PRACTICE SET

01. Choose the correct HTML tag for the largest heading
1) <heading> 2)<h1> 3) <h6> 4) <head>

02. What is the correct HTML tag for inserting a line break?
1) <lb> 2) <break> 3)
 4) none

03. What is the correct HTML for adding a background color?
1) <body color="yellow">
2) <body bgcolor="yellow">
3) <background>yellow</background>
4) none

04. Choose the correct HTML tag to make a text bold
1) <bb> 2) <bold> 3) <bld> 4) <b>

05. Choose the correct HTML tag to make a text italic
1) <italics> 2) <ii> 3) <i> 4) none

06. What is the correct HTML for making a hyperlink?
a) <a href="http:
www.HELLOWROLD">HELLOWORLD<a>
2) <a url=" http:
www.
HELLOWROLD">HELLOWORLD<a>
3) <a name="http:
www.
HELLOWROLD">HELLOWORLD<a>
4) <a> http://www. HELLOWROLD<a>

07. How an you make an e-mail link?
1) <mail>xxx@yyy</mail>
2) <a href="xxx@yyy">
3) <mail ferf="xxx@yyy">
4) <a herf=>>mail to xxx@yyy">

08. How can you open a link in a new browser window?
1)<a herf="url"new> 2) <a herf="url target>
3) <a hrref="url"new> 4) none

09. Which of these tags are all table tags?
1) <table><head><<tfoot>
2) <table><tr><u>
3) <table><body><tr> 4) <table><tr><td>

10. Choose the correct HTML to left-align the content inside a tablell
1) <td leftaligh> 2) <tdalign=left>
3) <td valigh="left> 4) <tdleft>