

Static web page V/s Dynamic web page

Static web page	Dynamic web page
The content and layout of a web page is fixed.	The content and layout may change during run time.
Static web pages never use databases.	Database is used to generate dynamic content through queries.

Client side scripting V/s Server side scripting

Client side scripting	Server side scripting
Script is copied to the client browser	Script remains in the web server
Script is executed in the client browser	Script is executed in the web server and the web page produced is returned to the client browser

Client side scripting languages: JavaScript, VB Script

Server side scripting languages: PHP, JSP, ASP, Pearl

Cascading Style Sheets (CSS): It is a style sheet language used for describing the formatting of a document written in HTML.

HTML Tags

Tags	Use	Attributes	Values and Purpose
<HTML>	To start an HTML document		
<HEAD>	To specify the head section of an HTML document.		
<TITLE>	This tag pair contains the text to be displayed in the title bar of browser.		
<BODY>	Defines the body section of the web page.	Bgcolor	Colour for the background of a web page.
		Background	Image as the background of a web page.
		Text	Colour of the text in the web page.
		Link	To specify the colour for the link unvisited.
		Alink	To specify the colour for the link on click.
Vlink	To specify the colour for the link visited.		

Tags	Use	Attributes	Values and Purpose
<H1> <H6>	To provide different levels of headings.	Align	“left”, “right” and “center” are the values.
 	To break the current line of text and continues in the next line. No attributes.		
<P>	To create a paragraph leaving a blank line.		
<HR>	To draw a horizontal line across the width of the browser window	Size	To specify the thickness
		Width	To reduce the width of the line
		Color	To specify the colour for the line
		Noshade	To avoid shading to the line
<CENTER>	To bring the content to the centre of the browser window. No attribute.		

Chapter 5

Web Designing using HTML

Different types of Lists in HTML

There are three kinds of lists in HTML - unordered lists, ordered lists and definition lists.

Tags	Use	Attributes	Values and Purpose
<code></code>	To create bulleted list	Type	To specify the type of bullet. “Disc”, “Circle” and “Square” are the values for ●, ○ and ◼.
<code></code>	To create numbered list	Type	To specify the type of numeral. The values are “1”, “I”, “i”, “a” and “A”.
		Start	To specify the starting number. The value should be an integer.
<code></code>	To specify an item in the unordered or ordered list. Used inside the pairs <code>...</code> and <code> ... </code>		
<code><DL></code>	To create a definition list		
<code><DT></code>	Used inside <code><DL>... </DL></code> to specify each data item (or term) in the list		
<code><DD></code>	Used after each <code><DT></code> to describe the term		

Links in HTML

A hyperlink (or simply link) is a text or an image in a web page, on clicking which another document or another section of the same document will be opened. The `<A>` tag, called anchor tag is used to give hyperlinks. **Href** is the main attribute of `<A>` tag. The URL (address of the web page/site) is given as its value. There are two types of linking – internal linking and external linking.

The following is an example for e-mail linking:

` SCERT`

Creating Table in Web page

Tags	Use	Attributes	Values and Purpose
<code><TABLE></code>	To create table	Border	Thickness of the border line around the table.
		Bordercolor	To set the colour to the border
		Cellspacing	To specify the space to be left between cells.
		Cellpadding	To specify the space in between the cell border and cell content.
<code><TR></code>	To specify a row in a table		
<code><TH></code>	To specify the heading cell.	Colspan	To span a cell over 2 or more columns in a row.
<code><TD></code>	To specify the data in a cell.	Rowspan	To span a cell over 2 or more rows in a column.
<code><CAPTION></code>	To add descriptive text to a table as its caption.		

Dividing the Browser window

The browser window can be divided into two or more panes to show different pages. `<FRAMESET>` tag is used to partition the browser window into different sections.

Tags	Use	Attributes	Values and Purpose
<FRAMESET>	To partition the browser window into different frame sections.	Cols	To specify the number of vertical frames in the frameset.
		Rows	To specify the number of horizontal frames.
		Border	To specify the thickness of border for the frames
<FRAME>	To define the frame for including the web page	Src	To specify the html file to be loaded in the frame.
		Name	To give a name to target the frame
<NOFRAME>	Used to display some text content in the window if the browser is unable to support frames.		

Forms in Web pages

Tags	Use	Attributes	Values and Purpose
<FORM>	To provide a container for Form controls.		
<INPUT>	To make different types of controls such as Text Box, Radio Button, Submit Button etc.	Type	To specify the control type. The values: Text creates textbox, Password creates textbox in which typed characters are displayed as asterisks (*), Radio creates radio buttons for selection, Submit creates submit button to upload data, Reset clears the entries in the Form.
		Name	To give a name to an input control.
		Value	To give an initial value to a control.
		Size	To specify the size of the text box and password box.
		Maxlength	To specify the maximum length of characters in text box and password box.
<TEXTAREA>	To provide space to give text in more than one line.	Name	To give a name to the control
		Rows	To specify the number of rows in the area.
		Cols	To specify the number of characters in a row.
<SELECT>	To create drop down list box	Name	To identify the control
		Size	To specify whether it is a list box or combo box.
		Multiple	To allow selection of multiple items.
<OPTION>	To specify the items in the SELECT list	Selected	To indicate the item for default selection.
<FIELDSET>	To group related controls in the Form.		
<LEGEND>	To set a caption for FIELDSET group		



Chapter 6 Client side Scripting using JavaScript

Data Types in JavaScript: Number, String, Boolean

Variables: Used for storing values. Declared using the keyword **var** as: **var x;**

Operators

Arithmetic operators	+ - * / %
Increment, decrement	++ --
Assignment operators	= += -= *= /= %=
Relational operators	< <= > >= == !=
Logical operators	&& !
String concatenation	+

Control Statements

if statements	if (test_expression) Statement;
	if (test_expression) statement_1; else statement_2;
	if (test_expression1) statement_1; else if (test_expression2) statement_2; : : else statement_n;
switch statement	switch (variable/expression) { case value1: statement1; break; case value2: statement2; break; : : default: statement; }
for loop	for (initialization; test; update) body;
while loop	initialization; while (test_expression) { body; update; }



www.rvgirls.com

Database Management System (DBMS) is essentially a set of programs which facilitates storage, retrieval and management of database.

Advantages of DBMS:

- Data redundancy (duplication of data) is controlled.
- Data inconsistency is avoided.
- Data are efficiently accessed.
- Data integrity is maintained.
- Data security is ensured.
- Data sharing is allowed.



www.rrvgirls.com

Components of DBMS: Hardware, Software, Database, Users, Procedures:

Data organisation:

- Field: The smallest unit of stored data.
- Record: A collection of related fields.
- File: A collection of all occurrences of same type of records.
- Database: A collection of files associated with an organisation.

Three levels of Data abstraction:

- a. Physical level: The lowest level of abstraction describes how data is actually stored.
- b. Logical level: The next-higher level of abstraction describes what data is stored in the database.
- c. View level: It is the highest level of database abstraction and is the closest to the users.

Two types of Data independence

- a. Physical data independence: It refers to the ability to modify the schema at the physical level without affecting the schema at the conceptual level.
- b. Logical data independence: It refers to the ability to modify a conceptual schema without causing any changes in the schema at view (external) level.

Types of Users of database

- Database Administrator (DBA): The person responsible for the control of the centralized and shared database.
- Application Programmers: Computer professionals who interact with the DBMS through application programs.
- Sophisticated Users: They interact with the database through their own queries.
- Naive Users: People accessing data by invoking one of the application programs.

Relation: A relation is also called Table. Data are organized in the form of rows and columns

Tuple: The rows (records) of a relation are known as tuples.

Attribute: The columns of a relation are called attributes.

Degree: The number of attributes in a relation determines the degree of a relation.

Cardinality: The number of rows (records) or tuples in a relation is called cardinality of the relation.

Domain: It is a pool of values in a given column of a table.

Schema: The description or structure of a database is called the database schema.

Instance: An instance of a relation is a set of tuples in it.

Chapter 10

Server side Scripting using PHP

Output statements – echo () and print ()

echo	print
Can take more than one parameter when used without parenthesis.	Takes only one parameter
Does not return any value.	Returns TRUE or 1 on successful output and FALSE if it was unable to print out the string
Little faster than print.	Little bit slower than echo

var_dump () : To display both data type and value of variables.

Variables in PHP

A variable in PHP starts with the \$ sign, followed by the name of the variable.

Data Types in PHP

- (i) Core data types – Integer, Float/Double, String, Boolean
- (ii) Special data types – Null, Array, Object, Resource

An example for String concatenation:

```
$x = "PHP";
$y = "Script";
$z = $x.$y;
```

The . (dot) operator will add the two strings.



www.rrvgirls.com

Arrays: (i) Indexed arrays, (ii) Associative arrays and (iii) Multi-dimensional arrays.

Indexed arrays: Arrays with numeric index are called indexed arrays. The function **array ()** can be used to create an array.

Associative arrays: Arrays with named keys are called associative arrays.

```
$array_name = array(key=>value, key=>value, key=>value, etc.);
Eg: $marks = array("hari"=>54, "ravi"=>45, "mini"=>56);
echo $marks["hari"]; gives 54 as output.
```

foreach loop

It is used when we have an array with unknown number of elements. The **foreach** loop works only on arrays and has two formats.

```
foreach ($array as $value)
{
    //code to be executed;
}
```

Built-in Functions

Function	Use	Syntax / Example
date ()	To display a date in given format	<code>date("d-m-y")</code> displays a date as 09-11-2017
chr ()	Returns a character from the specified ASCII value.	<code>chr(65)</code> returns A

