1. Forms in HTML: (Page 38)

Forms in HTML is basically used to accept the input from user or i can say it accept the user Input.

The <form> Element:

The HTML <form> element defines a form which is used to collect user input.

Syntax:  
<form> form elements </form>

Form elements are different types of input elements like: text fields, checkboxes, radio button, submit button and many more. Its also called as form controls.

Attribute used in form element:

Form tag attributes are as follows:

- Name: specify the form name, if its omitted the of that field is not at all sent.
- Action: specifies an address (url) where to submit the form. Default the current page.
- Method : specifies HTTP METHOD used while submitting the form data, method GET OR POST. By default GET METHOD.

METHOD:

1. GET : It is default method for submitting the data. When we used GET the form data will be visible in the page address field.

   Its better for nonsecure data.
   Length of character URL is limited.
   Never used GET to send sensitive data.
   Appends form data to the URL.

2. POST: It is used for sensitive data. Do not display form data in page address field.

   Have no size limitation.
   Cannot be bookmarked
The `<input>` tag

The `<input>` element attributes: (page 39)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;input type=&quot; &quot;&gt;</code></td>
<td>Name of the control like text,password,radio,checkbox,button,submit,reset</td>
</tr>
<tr>
<td><code>&lt;input name=&quot; &quot;&gt;</code></td>
<td>A unique user defined value for the control.</td>
</tr>
<tr>
<td><code>&lt;input maxlength=&quot; &quot;&gt;</code></td>
<td>Limits the number of characters to be entered in a text or password</td>
</tr>
<tr>
<td><code>&lt;input size=&quot; &quot;&gt;</code></td>
<td>Used with text &amp; password. Specifies the width of the textbox</td>
</tr>
<tr>
<td><code>&lt;input checked&gt;</code></td>
<td>Default selection for options in a checkbox or radio button</td>
</tr>
<tr>
<td><code>&lt;input value=&quot; &quot;&gt;</code></td>
<td>Used with text, checkbox, radio, submit or reset. For text type it specifies default value in text box, for checkbox and radio it defines value which is sent on submit.</td>
</tr>
</tbody>
</table>

Program: using all the input attributes:

```html
<html><body>
<form name="f1">
Name<input type="text" name="s1" size="20" value="your name" />
Password<input type="password" name="s2" maxlength="10">
<br>
Enter gender:<input type="radio" name="gen" value="male">male<br>
<input type="radio" name="gen" value="female" checked>female<br>
Select programming course :
<input type="checkbox" name="c++" value="c++" checked>c++ <br>
<input type="checkbox" name="vb" value="vb">vb <br>
<input type="checkbox" name="oracle" value="oracle">oracle <br>
<input type="submit" value ="submit"/>
</form></body></html>
```
I.T WORKSHEET-6

DATE: 04/04/2020  TIME: 1.5 HRS  MARKS: 40

Q1. FILL IN THE BLANKS: 9 marks

1. _______ form method has no size limitation.
2. ______ attributes specify the form name.
3. For sensitive or personal information _______ method is used.
4. Default method for submitting the data is ________
5. <input type ="text"> is used to create ______.
6. ______ Attribute is used as default selection for options in checkbox & radio button.
7. ______ attribute is used to define the width of the text box.
8. ______ attribute specifies where to submit the form.
9. ______ attribute is used to limit the number of characters entered in the text box.

Q2. STATE TRUE OR FALSE: 7 marks

1. GET is visible in address bar.
2. POST method has no limitation in character.
3. Value attribute is not used with text box.
4. <input> tag is not a form element.
5. A form is a collection of form elements.
6. GET or POST method is not used while submitting the form data.
7. POST method is connected to the server.

Q3. MATCH THE FOLLOWING: 4 marks

1. POST  a. form attribute
2. <input>  b. secure method
3. GET  c. specify types of controls
4. Action  d. default method

Q4. PROGRAMS: 20 marks

1. Create a form in HTML to accept your name. The size of the textbox should be 15?

2. Create a form in HTML to accept your age. The maximum number of characters entered in the textbox should be limited to two?

3. Create a form in HTML to accept your college name. The textbox should have a default value?

4. Create a form in HTML to accept your roll no & password. The form should have a default method for submitting data?
CHAPTER 3: IMPRESSIVE WEB DESIGNING

<input> tag: input tag is used to add various controls or elements using type attribute.

Syntax: <input type="name of controls/elements">

Type: It is an attribute. It describes the name of the controls/elements like textbox, radio button etc.

<table>
<thead>
<tr>
<th>FORM CONTROLS</th>
<th>DESCRIPTION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>textbox</td>
<td>Create a single line textbox.</td>
<td>&lt;input type=&quot;text&quot;&gt;</td>
</tr>
<tr>
<td>password</td>
<td>Create a text contents in the form of '*' or '∙'</td>
<td>&lt;input type=&quot;password&quot;&gt;</td>
</tr>
<tr>
<td>Radio button</td>
<td>Create a radio button. Allow single selection against multiple choices.</td>
<td>&lt;input type=&quot;radio&quot;&gt;</td>
</tr>
<tr>
<td>checkbox</td>
<td>Create a checkbox. Allow multiple selections against multiple choices.</td>
<td>&lt;input type=&quot;checkbox&quot;&gt;</td>
</tr>
<tr>
<td>Submit button</td>
<td>Create a button for submitting form data.</td>
<td>&lt;input type=&quot;submit&quot;&gt;</td>
</tr>
<tr>
<td>Reset button</td>
<td>Create a button for clearing form controls.</td>
<td>&lt;input type=&quot;reset&quot;&gt;</td>
</tr>
<tr>
<td>Push button</td>
<td>Create a button which activates on events.</td>
<td>&lt;input type=&quot;button&quot;&gt;</td>
</tr>
</tbody>
</table>

1. Create html form to accept students name, standard, choose your sports (football, cricket, badminton, volleyball) and submit the form.

```html
<!DOCTYPE html>
<html>
<head><title>html Form</title></head>
<body>
<h1>student's information form</h1>
<form>
Enter your name: <input type="text" name="sname"><br>
Select your standard: <input type="radio" name="r1" value="11"> 11
<input type="radio" name="r1" value="12"> 12<br>
Choose your sports: <br>
<input type="checkbox" name="c1" value="football"> football<br>
<input type="checkbox" name="c2" value="cricket"> cricket<br>
<input type="checkbox" name="c3" value="badminton"> badminton<br>
<input type="checkbox" name="c4" value="vollyball"> vollyball<br>
```

2. Create a login form.

```html
<!DOCTYPE html>
<html>
<head><title>Login Form</title></head>
<body>
<h1>Login Form</h1>
<form>
  user name: <input type="text" name="username"><br><br>
  password: <input type="password" name="pwd"><br><br>
  <input type="submit" value="ok">
</form>
</body>
</html>
```

Note: **Name attribute**: provides a unique name to the controls.
Name is user defined value.

**Value attribute**: when use with textbox it specifies default value in a text box.
For checkbox and radio button it defines value which is sent on submit.
Q.1 Fill in the blanks. (9 marks)

1. _______ tag is used to create controls like checkbox, textbox etc. on html form.
2. <input type=______> creates the textbox on the webpage.
3. <input type=_____> creates the textbox which accepts the password.
4. <input type=______> allows selection of only one of the associated values.
5. <input type=______> create a button for submitting form data.
6. _______ button is used to clear the contents of a form.
7. <input type="text"> create a______ textbox.
8. <input type="_______" > is used to create text contents in the form of  disc or asterisk.
9. <input>tag is used to create different controls by using_______attribute.

Q.2 State true or false. (7 marks)

1. Submit button can be created with <input> tag.
2. Checkboxes are used only for single selection.
3. A textbox is a most common field on the form.
4. By default, all the radio buttons are selected.
5. The form consists of form controls or elements.
6. Type attribute allows the user to create a dropdown list.
7. Textarea is created with <input> tag.

Q.3 Match the following. (4 marks)

1. single line text    a. checkbox
2. multiple selection b. radio button
3. clear form         c. textbox
4. single selection   d. reset button

Q.4 Programs. (20 marks)

1. Create a form to accept student's first, middle and last name and submit the form.
2. Create a login form which accepts employee name and password and submit the form.
3. Create a form having fields for name, gender, hobbies(reading, painting, dancing) submit and reset button.
4. Create a employee form which accepts emp_name, date of joining and department. Use checkbox for department selections as HR, purchase and sales. Button should be provided for submitting and clearing form information.
CHAPTER 3: IMPRESSIVE WEB DESIGNING

1. **<Textarea> tag**: it is used to create a textbox with multiple lines. No. of lines and width of textarea are set with **rows** and **cols** attributes. Textarea is used to accept information like address, feedback, comments, review, etc.

   **Syntax**: `<textarea  name="user define name"  rows="no. of horizontal lines" cols="no. of vertical lines"></textarea>`

**Attributes of <textarea> tag are:**

<table>
<thead>
<tr>
<th>attribute</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>It is used to specify name for the textarea.</td>
</tr>
<tr>
<td>Rows</td>
<td>It specifies no. of lines in the textarea.</td>
</tr>
<tr>
<td>Cols</td>
<td>It specifies width of a textarea in no. of columns.</td>
</tr>
<tr>
<td>maxlength</td>
<td>It specifies the maximum no. of characters allowed in the textarea.</td>
</tr>
<tr>
<td>placeholder</td>
<td>It specifies a short hint that describes the expected value of a textarea.</td>
</tr>
<tr>
<td>required</td>
<td>It specifies that textarea must be filled out. It can not be blank.</td>
</tr>
</tbody>
</table>

**Example:**

```
<textarea name="address" rows="5" cols="30" placeholder="please enter address here" maxlength="300" required>
DROP-DOWN LIST IN HTML:

A. **<select> tag**: it is used to create a dropdown list on the web page or form that allows user to select single or multiple options from it.

   **Attributes of <select> tag are:**

   a. **Name**: assign a name to the control.
   b. **Multiple**: allows the user to select more than one value.
   c. **Size**: use to set no. of visible values.

B. **<option> tag**: <option> tag inside <select> tag defines the available options or items in the list.

   **Attributes of <select> tag are:**

   a. **Selected**: it is used inside <option> tag to define preselected option or item in a dropdown list.
   b. **Value**: it assigns a value to the option or item specified in the dropdown list.```
Example:

Select your city: <select name="city">
    <option value="pune">pune</option>
    <option value="nasik">nasik</option>
    <option value="mumbai" selected>mumbai</option>
</select>

Program:

<doctype html>
<html>
<head><title>form elements textarea and dropdown list</title></head>
<body>
<h1>form with textarea and dropdown list</h1>
<form>
Enter your name: <input type="text" name="firstname"><br>
Select your city: <select name="city">
    <option>pune</option>
    <option>pune</option>
    <option>pune</option>
</select><br>
Enter your address: <textarea name="address" rows="3" cols="30" placeholder="your address" required>
</textarea><br>
<input type="submit" value="send">
</form>
</body>
</html>
Q.1 Fill in the blanks. (9 marks)

1. To create a dropdown list in html _______ tag is used.
2. To specify items in the <select> tag _______ tag is used.
3. _______ tag is used with <option> tag to give list of items.
4. _______ tag is used to create multiline text entry field.
5. Rows and _______ are the attributes of <textarea>.
6. ______ attribute specifies the number of rows displayed in the textarea field.
7. ______ attribute specifies the number of columns displayed in the textarea field.
8. ______ attribute of select tag allows the user to select more than one value.
9. To define preselected option ______ attribute is added to the <option> Tag.

Q.2 State true or false. (7 marks)

1. <input type="select"> is used to create dropdown list on the webpage.
2. <select> and <option> tag is used to create dropdown list on the form.
3. Multiple is valid attribute of <select> tag.
4. Textarea is a text box with single line text.
5. Required is an attribute of <textarea> tag.
6. <input type="textarea"> is used to create a textarea on the web page form.
7. Columns and length are valid attributes of <textarea> tag.

Q.3 Match the following. (4 marks)

1. multi line text a. cols
2. width of textarea b. textarea
3. size attribute c. placeholder
4. short hint d. no. of visible values

Q.4 Programs. (20 marks)

1. Create html form which accepts name, select your city from dropdown list (Mumbai, pune, nagpur), enter your address and submit the form data with SEND button.
2. Create html form which accepts month name as text, select your day from dropdown list and submit the form data.
3. Write html code to create user registration form having fields as name, address, city as dropdown list (Mumbai, pune, patna) and provision should be made for submitting and clearing the form data.
4. Create html form which accepts students name, standard as 11th and 12th with radio button, select your college name from dropdown list. Provision should be made to submit and clear form data.
CHAPTER 3: IMPRESSIVE WEB DESIGNING

1. **Scripting language:**
   - A script is a list of commands that are executed by a scripting engine like web browser.
   - Scripts are used to create dynamic web pages.
   - A script file can be opened and edited by using a text editor like notepad.
   - Scripting language allows the user to perform various functions or implements any logic like addition of two numbers, check any condition, perform looping and execute some decision making statements which is not possible with html language.
   - Examples are: java script and vb script.
   - JavaScript can be used for client side or server side.
   - Java script is a case sensitive language.
   - Java script is a light weight scripting language.
   - JavaScript is a universal scripting language because it is almost supported by all kind of browsers.

2. **Types of scripting:**

   **Client side scripting:**
   A script file present in a client computer and it is executed by a client’s web browser is known as client side scripting.

   **Server side scripting:**
   A script file present in a server computer and it is executed by a server’s web browser or by special server application when client computer makes a request is known as server side scripting.

3. **Insertion of JavaScript in html file:**
   JavaScript code can be inserted in html program between `<script>` and `</script>` tag.
   You can place any no. of scripts in html file.

   **There are some ways to insert JavaScript statements in the html file.**
   1. **Body section** that is between `<body>` and `</body>` tag.
   2. **Head section** that is between `<head>` and `</head>` tag.
   3. In both body and head section.
1. **Script placed inside body section:**

```html
<!doctype html>
<html>
<head><title>java script</title></head>
<body>
<script language="javascript">
 // scripting statements;
</script>
</body>
</html>
```

2. **Script placed inside head section:**

```html
<!doctype html>
<html>
<head>
<title>java script</title>
<script language="javascript">
 // scripting statements;
</script>
</head>
<body>
</body>
</html>
```

**Variables:**
- Variable is a basic unit of storage in JavaScript program.
- Variables are container which contain or store some information temporarily.
- Variable names are user defined.
- To declare variables in JavaScript language var keyword is used.

**Rules to declare a variable:**
Variable name may consist of alphabets, digits and underscore and dollar character with following rules.
- Must start with an alphabet.
- Uppercase and lowercase are distinct for example sum and SUM both are different variable because JavaScript is a case sensitive language.
- It should not contain blank space or special symbol except underscore.
- Standard keywords are not allowed for variable name. For example, if, while, for, document, etc.
- Variable name can be limited up to 255 characters.
Syntax for declaring variable:

`Var` variablename; // to declare single variable.

`Var` variablename, variablename; // multiple variables are declared and separated by comma.

**Note:** it’s best practice to terminate JavaScript statements with semicolon (;). It’s not required if you write each statements on a new line.

**Example:**

```javascript
var a;
var a, b, c;
```

**Initializing a variable:**

`var` keyword is used to initialize a variable in JavaScripting language.

**Examples:**

```javascript
var a; // declaring a variable ‘a’.

a=10;  // initializing variable a with value 10.

var b=5; // declaring and initializing a variable with 5 in a single statement.

var a, b, c; // declaring multiple variables.

a=1, b=2, c=3; // initializing multiple variables with values.

var a=7, b=8, c=9; // declaring and initializing multiple variables in a single statement.
```
Q.1 Fill in the blanks. (9 marks)

1. Scripting languages used to develop_________web pages.
2. ______attribute is used to set scripting language for page.
3. Java script can be used for________side scripting language.
4. ______is a basic unit of storage.
5. var keyword is used to declare_________.
6. Multiple variables are declared using _______punctuation.
7. A script is a set of___________.
8. Scripts can be placed both in head & _____section of html.
9. ________scripting is used for data entry validation.

Q.2 State true or false. (7 marks)

1. Client side script is processed by the browser.
2. Dynamic html code contains scripting commands.
3. Client side scripts are interpreted by the web server.
4. Java script is not a case sensitive language.
5. Java script supports only server side scripting.
6. Variable name can be limited up to 255 characters.
7. var is a keyword.

Q.3 Match the following. (4 marks)

1. script    a. storage
2. variable  b. attribute
3. var       c. commands
4. language  d. keyword

Q.4 Programs. (20 marks)

1. Write a JavaScript program to declare two variables num1 and num2.
2. Write a JavaScript program to declare two variables a and b and initialize it with values 5 and 10.
3. Write a JavaScript program to declare three variables x, y, z with values 10,15,20 respectively in the head section.
4. Write a JavaScript program to declare a variable SUM with value 10 and display it.
This document contains:

➢ Introduction to Javascript
➢ Variables
➢ Datatypes
➢ Operators(Arithmetic)
➢ ‘+’ operator in Javascript :

➢ Client-side Javascript : (pg 42)

**JavaScript** is a lightweight, interpreted **programming** language. **JavaScript** is very easy to implement because it is integrated with HTML.

❖ JavaScript code can be inserted between `<script>` and `</script>` tag.
❖ Language attribute is used to set the scripting language to be used .
❖ `<script>` tag can be placed inside `<head>` / `<body>` or both as per usage .

A simple syntax of your JavaScript will appear as follows.

```html
<html>
<body>
<script language="javascript">
    Javascript code ;
</script>
</body>
</html>
```

**Note :** - Type your Javascript program in editors and execute it in browser similar to HTML programs.
Variables : (pg 42)

➢ The variable is a basic unit of storage in a JavaScript program.
➢ Variables are declared with the var keyword as follows –

```javascript
var name, age;
</script>
```

*Note: It's best practice to terminate JavaScript statements with semicolon(;)*. It's not required if you write each statement on a new line.

Rules to declare variables :

<table>
<thead>
<tr>
<th>Rules</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. They must start with an alphabet.</td>
<td>var a / var Ab</td>
</tr>
<tr>
<td>2. Uppercase and lowercase are distinct.</td>
<td>var a both are var A different</td>
</tr>
<tr>
<td>3. It should not contain blank space or</td>
<td>Var a ✗ correct</td>
</tr>
<tr>
<td>special symbol except underscore.</td>
<td>Var a* ✗ wrong (only _ allowed)</td>
</tr>
<tr>
<td></td>
<td>Var a_ ✗ correct</td>
</tr>
<tr>
<td></td>
<td>Var _a ✗ wrong (refer rule 1)</td>
</tr>
<tr>
<td>4. Standard keywords are not allowed as</td>
<td>Example document, while.</td>
</tr>
<tr>
<td>variable name.</td>
<td></td>
</tr>
<tr>
<td>5. Variable name can be limited</td>
<td>Up to 255 characters.</td>
</tr>
</tbody>
</table>
### Javascript DataTypes: (pg 43)

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Datatype Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>String</strong></td>
</tr>
<tr>
<td></td>
<td>Can contain groups of character as single value. It is represented in double quotes.</td>
</tr>
<tr>
<td></td>
<td>E.g. var x= “tutorial”.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Numbers</strong></td>
</tr>
<tr>
<td></td>
<td>Contains the numbers with or without decimal. E.g. var x=44, y=44.56;</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Booleans</strong></td>
</tr>
<tr>
<td></td>
<td>Contain only two values either true or false. E.g. var x=true, y= false.</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Undefined</strong></td>
</tr>
<tr>
<td></td>
<td>Variable with no value is called Undefined. E.g. var x;</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Null</strong></td>
</tr>
<tr>
<td></td>
<td>If we assign null to a variable, it becomes empty. E.g. var x=null;</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Infinity</strong></td>
</tr>
<tr>
<td></td>
<td>Division by 0 gives you another special value. E.g. var a=5/0=Infinity</td>
</tr>
</tbody>
</table>

### Javascript Operators

- Arithmetic Operators
- Assignment Operators
- Relational Operators
- Logical Operators
Arithmetic Operators : (pg 44)

Following table shows all the arithmetic operators supported by JavaScript –

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Add two operands.</td>
<td>10 + 10 will give 20</td>
</tr>
<tr>
<td>-</td>
<td>Subtract second operand from the first.</td>
<td>10 – 10 will give 0</td>
</tr>
<tr>
<td>*</td>
<td>Multiply two operands.</td>
<td>10 * 30 will give 300</td>
</tr>
<tr>
<td>/</td>
<td>Divide numerator by denominator (returns quotient)</td>
<td>10/10 will give 1</td>
</tr>
<tr>
<td>%</td>
<td>It is called modulus operator and gives remainder of the division.</td>
<td>10 % 10 will give 0</td>
</tr>
</tbody>
</table>

‘+’ operator in JavaScript : (pg 45)

In JavaScript ‘+’ operator has two meanings, arithmetic addition and string concatenation operator.

For eg :

```html
<html>
<body bgcolor="yellow">
<h1> Program to calculate multiplication of two numbers </h1>
<script language="javascript">
var a,b,c;
a=76; b=24; c=a-b;
document.write("Subtraction of two numbers : "+c);
</script></body></html>
```

‘+’ operator is used to concatenate
I.T Worksheet

Date: 09/04/2020
Marks: 40
Duration: 1.5 hrs

I Fill in the blanks 09M

1. JavaScript is ________ side scripting.
2. Variables are declared with ________ keyword.
3. ________ arithmetic operator returns remainder.
4. ________ attribute is used in <script> to specify JavaScript usage.
5. ________ datatype in JavaScript can contain integer as well as decimal numbers.
6. ________ datatype contains characters as well as words.
7. ________ datatype contains variable with no value.
8. Only ________ special character is allowed by naming variable.
9. JavaScript code is contained in ________ tag.

II True or False 07M

1. <script> tag can be placed inside <head> / <body>.
2. JavaScript is not case sensitive.
3. Variables in JavaScript can contain alphabets as well as numbers.
4. Null datatype is used to define a division by 0 value.
5. Number datatype accepts only decimal and fractional numbers.
6. Variables are declared with vary keyword.
7. Any special character can be used while declaring the variable.

III Match the following 04M

1. Division by 0 a. Boolean
2. Empty Value b. Infinity
3. No Value c. Null
4. True/False d. Undefined

IV Programs 20M

1. Write a JavaScript program to join the two strings “infor” and “motion” using concatenation operator and display it.
2. Write a JavaScript program to display the Difference of two numbers.
3. Write a JavaScript program to display the average of 3 subject marks.
4. Write a JavaScript program to display area of a triangle.