Paper: Web Engineering   **Course Code: BBA-304**

Part-I short questions

Q.2. Answer the following short questions.   **(2x10=20)**

1. **What is a session in a website?**

   A session in a website is a way to track and manage user-specific information across multiple requests made by the same user during a visit. It allows the server to store data associated with a user, providing a mechanism for maintaining stateful interactions, such as user authentication and personalized content.

2. **What is an inline style sheet? How to link?**

   An inline style sheet is a CSS style applied directly within the HTML document, using the `style` attribute. To link it, you write CSS rules directly within the HTML tags. Example:

   ```
   <p style="color: blue; font-size: 16px;">This is a paragraph with inline styles.</p>
   ```

3. **How can you create a table with two columns and two rows on a webpage?**

   Example HTML code:

   ```
   <table border="1">
   <tr>
     <td>Row 1, Column 1</td>
     <td>Row 1, Column 2</td>
   </tr>
   <tr>
     <td>Row 2, Column 1</td>
     <td>Row 2, Column 2</td>
   </tr>
   </table>
   ```

4. **Which tag is used to place a heading on a webpage?**

The <h1> to <h6> tags are used to define headings on a webpage, with `<h1>` being the highest level and <h6> the lowest.

5. **Differentiate between Static and Dynamic websites.**

Static Website: Content remains fixed and doesn't change unless manually updated. Each user sees the same content.

Dynamic Website: Content can change dynamically based on user interactions or other variables. It is generated on the server side and can provide personalized experiences.

6. **Define XML?**

XML (Extensible Markup Language) is a markup language that defines rules for encoding documents in a format that is both human-readable and machine-readable. It is designed to store and transport data, allowing easy exchange of information between different systems.

7. **How do you add a picture to a webpage?**

Use the <img> tag to add an image. Example:

html

<img src="image.jpg" alt="Description of the image">

8. **How can you link an image to http://www.google.com?**

Use the `<a>` (anchor) tag to create a hyperlink around the image. Example:

html

**

<img src="image.jpg" alt="Description of the image">

**

9. **Difference between Cell spacing and Cell Padding?**

Cell Spacing: It defines the space between cells in a table. It is set using the cellspacing attribute of the <table> tag.

Cell Padding: It defines the space between the content of a cell and its border. It is set using the cellpadding attribute of the <table> tag.

10. **What is a Request Form in ASP?**

A Request Form in ASP (Active Server Pages) is a web form that allows users to submit data to the server. The submitted data is processed on the server side, and ASP scripts handle the form data. It is a way to interact with users and gather information from them.

Q.3. Answers the followings questions. **(3x10=30)**

1. What is the concept of loops in web engineering?

In web engineering, loops are programming constructs used to execute a block of code repeatedly until a specified condition is met. Loops are essential for handling repetitive tasks efficiently. There are various types of loops, but two common ones are:

For Loop: It executes a block of code a specific number of times. The loop consists of an initialization statement, a condition to check before each iteration, and an increment or decrement statement.

Example in JavaScript:

```javascript
for (let i = 0; i < 5; i++) {
  // Code to be executed 5 times
  console.log("Iteration: " + i);
}
```

While Loop: It repeats a block of code if a specified condition is true. The loop continues iterating until the condition becomes false.

Example in JavaScript:

```javascript
let i = 0;
while (i < 5) {
  // Code to be executed as long as i is less than 5
  console.log("Iteration: " + i);
  i++;
}
```

Loops are commonly used in web development for tasks such as iterating through arrays, processing form submissions, and dynamically generating content.

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2. What are Hyperlinks? How can we send a message to abc@yahoo.com with the subject "Hello" using an email link? Write the code.

Hyperlinks:

Hyperlinks, or simply links, are elements in a webpage that allow users to navigate to other web pages or resources. They are typically created using the `<a>` (anchor) HTML tag and are defined by the `href` attribute, which specifies the destination URL.

Email Link Example:

To create an email link that opens the user's default email client and pre-fills the recipient and subject, you can use the `mailto:` protocol in the `href` attribute. Here's an example:

html

```
<a href="mailto:abc@yahoo.com?subject=Hello">Send Email</a>
```

In this example:

`mailto:` is the protocol that indicates an email link.

`abc@yahoo.com` is the recipient's email address.

`subject=Hello` sets the subject of the email to "Hello."

When a user clicks the link, it will open their default email client with a new email draft addressed to "abc@yahoo.com" and with the subject "Hello."

It's important to note that the behavior of the `mailto:` link depends on the user's device and browser configuration, and it may not work as expected on all systems.

3. Create a webpage that consist of following:

NAME

PASSWORD

SUBMIT

Send these values to a.asp page from form.htm! and verify if the password is 123 then show a welcome message otherwise show invalid Password Message.

Certainly! Below are the updated HTML (**form.htm**) and ASP (**a.asp**) files to implement the desired functionality:

form.htm (HTML Form):

```
<!DOCTYPE html>

<html lang="en">

<head>

 <meta charset="UTF-8">

 <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```html
    <title>Login Form</title>

</head>

<body>

  <form action="a.asp" method="post">

    <label for="name">Name:</label>

    <input type="text" id="name" name="name" required>


    <label for="password">Password:</label>

    <input type="password" id="password" name="password" required>


    <button type="submit">Submit</button>

  </form>

</body>

</html>
```

a.asp (ASP Page):

```asp
<%

Dim name, password

name = Request.Form("name")

password = Request.Form("password")


If password = "123" Then

%>

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Welcome Page</title>

</head>

<body>

  <h1>Welcome, <%= name %>!</h1>

</body>
```

```asp
</html>
<%
Else
%>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Invalid Password Page</title>
</head>
<body>
  <h1>Invalid Password. Access Denied.</h1>
</body>
</html>
<%
End If
%>
```

In this example:

- The HTML form (**form.htm**) includes fields for the user to enter their name and password.
- The form has its **action** attribute set to **a.asp**, which means when the form is submitted, the data will be sent to the **a.asp** page.
- The ASP page (**a.asp**) retrieves the values of **name** and **password** from the form using **Request.Form**.
- It checks if the password is equal to "123." If true, it displays a welcome message; otherwise, it shows an "Invalid Password" message.
  This basic example assumes the usage of the **post** method for form submission. Again, for a production environment, additional security measures should be considered.