git and github tranning

THEORY ASSIGNMENT :

no1 follow a git totirial to pratic closing ,branching,and mergning repositiories?

Git Tutorial: Closing, Branching, and Merging
Prerequisites
1 Git installed on your system.
2 Basic knowledge of using the terminal/command line.

```
      # Create a new directory for your project
mkdir git-tutorial
cd git-tutorial

# Initialize a Git repository
git init


# Create a file to track
echo "This is the main branch" > file.txt

# Add the file to the staging area
git add file.txt

# Commit the file to the repository
git commit -m "Initial commit"
```

HTML assignment

no 1 : define html , what is the purpose of HTML in web development?
ans :
HTML serves several key purposes in web development:

Structuring Content:

HTML organizes the content of a web page into meaningful sections such as headings, paragraphs, lists, tables, and forms.
It provides a semantic structure that helps both users and search engines understand the content.
Displaying Multimedia:

HTML supports embedding multimedia elements like images, videos, and audio.
For example, the <img>, <video>, and <audio> tags are used to include rich media content.
Enabling Navigation:

HTML allows the creation of hyperlinks (<a> tag) to connect different web pages or resources, forming the backbone of the World Wide Web.
Interactivity:

While HTML itself is static, it works in conjunction with CSS (Cascading Style Sheets) and JavaScript to enable dynamic and interactive web pages.
Foundation for Web Applications:

HTML provides the basic framework upon which advanced technologies like CSS, JavaScript, and frameworks (React, Angular, etc.) build interactive and responsive web applications.
Cross-Browser Compatibility:

HTML is designed to work across all web browsers, ensuring that content is accessible to users regardless of the platform.

no 2 : explain the basic structure in html?

What is HTML?
HTML (HyperText Markup Language) is the standard markup language used to create and structure content on the web. It provides the foundation for web pages by defining elements like headings, paragraphs, links, images, and more.

HTML uses tags enclosed in angle brackets (< >) to specify the content and structure of a web page. For example:

html
Copy code

```
<!DOCTYPE html>
<html>
<head>
    <title>My Web Page</title>
</head>
<body>
    <h1>Welcome to My Website</h1>
    <p>This is a paragraph of text.</p>
</body>
</html>
```

no 3 : difference between block element and inline element?

1. Block Elements

Block elements are used to structure the layout of a webpage by creating "blocks" of content.

Characteristics:
Start on a new line: Block elements always begin on a new line, stacking vertically.
Take up the full width: By default, a block element takes up the entire width of its parent container, regardless of its content width.
Can contain other block and inline elements: Block elements can hold both inline and other block elements inside them.
Common Examples:
: A generic container for content.
<p>: Paragraphs of text.
<h1> to <h6>: Headings.
 and <ol>: Lists.
<table>: Tables

. Inline Elements

Inline elements are used to format content within a block or another inline element without disrupting the flow.

Characteristics:
Do not start on a new line: Inline elements stay within the same line as the surrounding content.
Take up only as much width as needed: They only occupy the width of their content.
Cannot contain block elements: Inline elements can only contain other inline elements or text.
Common Examples:
: A generic container for inline content.
<a>: Hyperlinks.
: Bold text.
: Italicized text.
<img>: Images.

no 4

discuess the rule of semantic html ?

Rules of Semantic HTML
Use Elements According to Their Purpose:

Choose HTML tags that best describe the content they enclose.
For example:
Use <header> for the page or section header.
Use <article> for standalone pieces of content like blog posts.
Use <footer> for the footer section of a page.
Avoid Non-Semantic Tags for Structure:

Avoid using generic tags like and when semantic tags are available.
Example: Use <nav> for navigation menus instead of .
Ensure Proper Nesting:

Tags should be nested correctly to preserve meaning and structure.
Example:
html
Copy code

```
<article>
    <h1>Article Title</h1>
    <p>This is the content of the article.</p>
</article>
```

no 5

what are the html form used for?

```
<form action="/submit-login" method="post">
    <label for="username">Username:</label>
    <input type="text" id="username" name="username">
    <label for="password">Password:</label>
    <input type="password" id="password" name="password">
    <button type="submit">Login</button>
</form>
```

no 6

explin difference between get and post method ?

The GET and POST methods are two commonly used HTTP methods for sending data from an HTML form to a server. They differ in how they transmit data and their use cases.

1. GET Method
Characteristics:
Data in URL: The form data is appended to the URL as query parameters.
Example: https://example.com/search?query=html
Visible to Users: The data is visible in the browser's address bar.
Length Limit: Limited by the URL length (varies by browser, typically around 2000 characters).
Caching: GET requests can be cached by browsers and stored in browser history.
Bookmarkable: The URL, including the query parameters, can be bookmarked or shar

The GET and POST methods are two commonly used HTTP methods for sending data from an HTML form to a server. They differ in how they transmit data and their use cases.

1. GET Method
Characteristics:
Data in URL: The form data is appended to the URL as query parameters.
Example: https://example.com/search?query=html
Visible to Users: The data is visible in the browser's address bar.
Length Limit: Limited by the URL length (varies by browser, typically around 2000 characters).
Caching: GET requests can be cached by browsers and stored in browser history.
Bookmarkable: The URL, including the query parameters, can be bookmarked or shared.
Use Cases:
Retrieving Data: Ideal for actions that do not modify server data, such as search queries or displaying content.
When Security is Not a Concern: As the data is visible, it should not be used for sensitive information (e.g., passwords).
Example:
html
Copy code

```
<form action="/search" method="get">
    <label for="query">Search:</label>
    <input type="text" id="query" name="query">
    <button type="submit">Search</button>
</form>
```

URL on submission: https://example.com/search?query=html

2. POST Method
Characteristics:
Data in Request Body: The form data is sent in the body of the HTTP request, not in the URL.
Not Visible: The data is not visible in the browser's address bar.
No Length Limit: Can handle large amounts of data (e.g., file uploads).
Not Cached: POST requests are not cached by browsers.

Not Bookmarkable: The data is not part of the URL, so it cannot be bookmarked.

no 7 what is the purpose of lable element ?

Purpose of the <label> Element in HTML
The <label> element in HTML is used to define a label for an input element, making forms more accessible and user-friendly. It associates descriptive text with form controls like text fields, checkboxes, radio buttons, etc.

Key Purposes of the <label> Element
Accessibility:

The <label> element improves accessibility by linking the label text to a specific form control.
Screen readers can read the label text aloud, helping visually impaired users understand the purpose of the input field.
Clickable Labels:

When a <label> is associated with an input element, clicking the label will focus or activate the input field.
This improves the user experience, especially for checkboxes and radio buttons.
Improved Usability:

Labels provide context to users, explaining what kind of data they need to input.
Semantic Clarity:

The <label> element makes the form more semantically correct, aiding developers and search engines in understanding the form structure.

no 8 explain the structure of html table and purpose of each eleement like <table>,<td>,<tr>,<th>?

Element	Purpose
<table>	Acts as the container for the entire table.
<tr>	Defines a single row in the table.
<td>	Represents a standard data cell.
<th>	Represents a header cell, typically bold and centered.
<caption>	Provides a title or description for the table.
<thead>	Groups the table's header rows for styling or logical separation.
<tbody>	Groups the main content rows of the table.
<tfoot>	Groups footer rows, often used for totals or summaries.

no 9 difference between rowspan and colspan?

Difference Between rowspan and colspan in HTML
rowspan and colspan are attributes used in HTML tables to merge cells either vertically (rowspan) or horizontally (colspan). They help create complex table layouts by spanning a cell across multiple rows or columns.

1.
rowspan Attribute
Purpose: Merges a cell vertically by spanning it across multiple rows.
Syntax: <td rowspan="number">Content</td>
Effect: Combines the current cell with cells below it in the same column.
Usage: Used when data in one column is related to multiple rows.
Example:
html
Copy code

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

2. colspan Attribute
Purpose: Merges a cell horizontally by spanning it across multiple columns.
Syntax: <td colspan="number">Content</td>
Effect: Combines the current cell with cells to its right in the same row.
Usage: Used when data in one row is related to multiple columns.
Example:
html
Copy code

```
<table border="1">
    <tr>
        <td>Row 1, Column 1</td>
        <td colspan="2">Column 2 and 3</td>
    </tr>
    <tr>
        <td>Row 2, Column 1</td>
        <td>Row 2, Column 2</td>
        <td>Row 2, Column 3</td>
    </tr>
</table>
```

HTML LAB ASSIGNMENT

NO 1 : CREATE A SIMPLE HTML WEB PAGE THAT INCLUDE A HEADER <HEADER>,FOOTER<FOOTER>,MAIN SECTION <MAIN SECTION>,AND ASIDE SECTION <ASIDE> ?

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Document</title>
</head>
<body>


<body>
    <header>
        <h1>Welcome to My Web Page</h1>
    </header>
    <main>
        <aside>
            <h2>Aside Section</h2>
            <p>This is the aside section, where you can add links,
advertisements, or extra information.</p>
        </aside>
        <section>
            <h2>Main Section</h2>
            <p>This is the main section of the web page. You can add your
primary content here.</p>
        </section>
    </main>
    <footer>
        <p>&copy; 2024 My Web Page. All rights reserved.</p>
    </footer>
</body>
</html>
```

NO 2

CREATE A FORM HTML ELEMENT?

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Document</title>
</head>
<body>
    <div class="aman">
        <marquee><h1>Ragristion Form</h1></marquee>

        <center>

        <lable> first name</lable>
        <input type="text" placeholder="user name" required>
        <br><br>


        <lable> last name</lable>
        <input type="text" placeholder="user name" required>
```

```
        <br><br>


        <lable>Gender:</lable>

        <input type="radio" >male

        <input type="radio" >female

    <br><br>


        <lable>language : </lable>

        <input type="checkbox" >Hindi

        <input type="checkbox" >English

    <br><br>


    <lable>date of birth</lable>
    <input type="date"  required>
    <br><br>


    <lable>E-mail</lable>
    <input type="email" placeholder="enter your email" required>
    <br><br>




    <lable>Address</lable>
    <input type="   " placeholder="enter your email" required>
    <br><br>

    <button>submit</button>    <button>Reset</button>







        </center>

    </div>
</body>
</html>
```

NO 3 NO 2 CREATE A TABLE HTML ELEMENT?

```
<cellpadding="15"!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Document</title>
</head>
<body>

    <h1 align="center">salary table</h1>

    <table border="1px" align="center">

        <tr>
            <th>name </th>
            <th>age</th>
            <th>salary</th>
        </tr>

        <tr>
            <td>aman</td>
            <td>22</td>
            <td>20000</td>
        </tr>



        <tr>
            <td>razim</td>
            <td>23</td>
            <td>19000</td>
        </tr>



        <tr>
            <td>prasant</td>
            <td>22</td>
            <td>15000</td>
        </tr>



        <tr>
            <td>mukesh</td>
            <td>18</td>
            <td>24000</td>
        </tr>



        <tr>
            <td>kunal</td>
            <td>21</td>
            <td>17000</td>
        </tr>
```

```
</table>
```