Hyperlink

The *hyperlink* tag, commonly known as the *<a>* tag in HTML, is used to create hyperlinks or links to other web pages, documents, or resources on the internet. The *<a>* tag is one of the most commonly used tags in HTML for creating clickable links.

The basic syntax of the *<a>* tag is as follows:

```
<a href="URL">Link Text</a>
```

Where:

- *href:* This is the attribute that specifies the URL (Uniform Resource Locator) of the target document or resource that the link points to. It can be an absolute URL (e.g., "https://example.com") or a relative URL (e.g., "page.html" or "../documents/document.pdf").
- *Link Text:* This is the text that appears as the clickable link on the web page. It is the text that users click on to navigate to the target document or resource.

Example :

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Hyperlinks</title>
</head>
<body>
    <h1>About page</h1>
    <a href="https://www.geeksforgeeks.org/">Click Me</a>


</body>
</html>
```

About page

Click Me

Output

Explanation :

- The first line, *<!DOCTYPE html>*, is the document type declaration. It tells the browser that the document is an HTML5 document.
- The second line specifies that the document is in the English language, using the *lang* attribute in the *<html>* tag.
- Inside the *<head>* section, there are several *<meta>* tags. These tags provide metadata about the document. The first *<meta>* tag specifies the character encoding used in the document (UTF-8). The second *<meta>* tag specifies that the document should be rendered in the latest version of Internet Explorer. The third *<meta>* tag sets the viewport width to the device's width and scales the content accordingly.
- The *<title>* tag sets the title of the page, which appears in the browser's title bar.
- Inside the *<body>* section, there is a single *<h1>* heading tag that displays the text "About page".
- Finally, there is an *<a>* tag that creates a hyperlink to the GeeksforGeeks website. The *href* attribute specifies the URL of the website, and the text "Click Me" is displayed as the link text. When the user clicks on this link, they will be taken to the GeeksforGeeks website.

Types Of Hyperlink Tags :

1. Absolute Hyperlinks : Absolute hyperlinks use the complete URL (Uniform Resource Locator) of the target document or resource. They include the protocol (e.g., "http://" or "https://"), domain name (e.g., "example.com"), and the specific path or file name (e.g., "/page.html" or "/images/image.jpg"). Absolute hyperlinks point to a specific web address on the internet.

2. Relative Hyperlinks : Relative hyperlinks use a relative path to the target document or resource, which is relative to the current web page's location. Relative hyperlinks do not include the protocol or domain name, but instead specify the path or file name of the target document or resource relative to the current web page's location. Relative hyperlinks are commonly used when linking to documents or resources within the same website or domain.

Example :

1. Home Page :

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Hyperlinks</title>
</head>
<body>
    <h1>Home page</h1>
    <a href="https://www.geeksforgeeks.org/">Click Me</a>
    <a href="./About.html">About</a>
    <div>
        <a href="#section1">Go to section1</a>
        <a href="#section2">Go to section2</a>
        <a href="#section3">Go to section3</a>
    </div>


    <div>
        <h1 id="section1">section1</h1>
        <p>Lorem ipsum dolor sit amet consectetur, adipisicing elit.
Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus,
placeat, porro mollitia expedita tempora necessitatibus dolores libero
eligendi distinctio eum cupiditate delectus in quidem eaque esse.
```

```
Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt
possimus non sequi quia aut ratione. Labore, odit quod.</p>

    </div>


    <div>
        <h1 id="section2">section2</h1>

        <p>Lorem ipsum dolor sit amet consectetur, adipisicing elit.
Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus,
placeat, porro mollitia expedita tempora necessitatibus dolores libero
eligendi distinctio eum cupiditate delectus in quidem eaque esse.
Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt
possimus non sequi quia aut ratione. Labore, odit quod.</p>

    </div>


    <div>
        <h1 id="section3">section3</h1>

        <p>Lorem ipsum dolor sit amet consectetur, adipisicing elit.
Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus,
placeat, porro mollitia expedita tempora necessitatibus dolores libero
eligendi distinctio eum cupiditate delectus in quidem eaque esse.
Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt
possimus non sequi quia aut ratione. Labore, odit quod.</p>

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

Output :

Home page

Click Me About
Go to section1 Go to section2 Go to section3

section1

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus, placeat, porro mollitia expedita tempora necessitatibus dolores libero eligendi distinctio eum cupiditate delectus in quidem eaque esse. Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt possimus non sequi quia aut ratione. Labore, odit quod.

section2

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus, placeat, porro mollitia expedita tempora necessitatibus dolores libero eligendi distinctio eum cupiditate delectus in quidem eaque esse. Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt possimus non sequi quia aut ratione. Labore, odit quod.

section3

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Sit ducimus ullam laudantium neque cupiditate? Itaque accusamus, placeat, porro mollitia expedita tempora necessitatibus dolores libero eligendi distinctio eum cupiditate delectus in quidem eaque esse. Quaerat praesentium, alias fugiat consequatur odio aliquam incidunt possimus non sequi quia aut ratione. Labore, odit quod.

Output

2. About Page :

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Hyperlinks</title>
</head>
<body>
    <h1>About page</h1>
    <a href="https://www.geeksforgeeks.org/">Click Me</a>

</body>
</html>
```

Output :

About page

Click Me

Output

Explanation :

- The first code creates a webpage with a hyperlink to an external website (https://www.geeksforgeeks.org/) and two internal hyperlinks to sections within the same page. The internal hyperlinks are created using the anchor tag *<a>* with the *href* attribute set to the ID of the corresponding section within the page. The ID is set using the *id* attribute on the section's header tag (*<h1>* in this case).
- The second code creates a webpage with a single hyperlink to an external website (https://www.geeksforgeeks.org/) on an "About" page.

Target Attribute in Hyperlink Tag :

The *target* attribute is used to specify where the linked document or resource should be displayed when a hyperlink is clicked. It is used as an attribute within the *<a>* (anchor) tag, which is used to create hyperlinks.The *target* attribute can take several values, including:

1. *_self*: The linked document or resource will be loaded in the same frame or window as the current web page. This is the default behavior if the *target* attribute is not specified.

Example:

```
<a href="https://example.com" target="_self">Visit Example Website</a>
```

2. _blank: The linked document or resource will be loaded in a new, unnamed browser window or tab.

Example:

```
<a href="https://example.com" target="_blank">Visit Example Website</a>
```

3. _parent:_ The linked document or resource will be loaded in the parent frame or window of the current web page, if the current web page is within a frameset or iframe.

Example:

```
<a href="https://example.com" target="_parent">Visit Example Website</a>
```

4. _top:_ The linked document or resource will be loaded in the top-level browsing context, replacing any frames or iframes that may be present.

Example:

```
<a href="https://example.com" target="_top">Visit Example Website</a>
```

Example :

1. Target Page 1 :

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Target 1</title>
</head>
<body>

    <a href="https://www.geeksforgeeks.org/" target="_blank"></a>

    <a href="https://www.geeksforgeeks.org/" target="_parent"></a>

    <a href="https://www.geeksforgeeks.org/" target="_self"></a>
```

```
    <a href="https://www.geeksforgeeks.org/" target="_top"></a>
</body>
</html>
```

2. *Target Page 2 :*

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Target 2</title>
</head>
<body>
    <h1>This is page 2</h1>
    <iframe src="./Target3.html" width="500px" height="500px"></iframe>
</body>
</html>
```

3. *Target Page 3 :*

HTML

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Target 3</title>
</head>
```

```
<body>
    <h1>This is page 3</h1>
    <iframe src="./Target4.html" width="500px" height="500px"></iframe>
</body>
</html>
```

4. Target Page 4

HTML

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Target 4</title>
</head>
<body>
    <a href="https://www.geeksforgeeks.org/" target="_self">Geeks For Geeks</a>
</body>
</html>
```

Output :

This is page 2

This is page 3

Geeks For Geeks

Output

This is page 3

[Geeks For Geeks](#)

Output

[Geeks For Geeks](#)

Output

Explanation :

These codes are related to the use of the *target* attribute in hyperlinks and iframes.

In the first HTML code block, there are four hyperlinks that have different values set for the *target* attribute. The *target* attribute determines where the linked document should be displayed when the user clicks on the hyperlink. The values used in this code block are:

- *_blank*: The linked document will be displayed in a new window or tab.
- *_parent*: The linked document will be displayed in the parent frame of the current frame or in the parent window if there is no parent frame.
- *_self*: The linked document will replace the current document in the same frame or window.
- *_top:* The linked document will replace the current document and will be displayed in the full body of the window.

In the second HTML code block, there is an iframe that embeds the content of the third HTML code block. The *src* attribute specifies the source URL of the document to be embedded, and the *width* and *height* attributes define the size of the iframe. When the user loads the second HTML document, the embedded document from the third HTML code block is displayed within the iframe.

In the third HTML code block, there is another iframe that embeds the content of the fourth HTML code block. The embedded document contains a hyperlink with the *target* attribute set to *_self*. When the user clicks on the hyperlink, the linked document will replace the current document in the same frame or window.

In the fourth HTML code block, there is a hyperlink with the *target* attribute set to *_self*. This means that when the user clicks on the hyperlink, the linked document located at "https://www.geeksforgeeks.org/" will replace the current document in the same frame or window. The linked document will load in the same browser window or frame where the hyperlink is clicked, and it will replace the content of the current document with the content of the linked document.

The text "Geeks For Geeks" is the visible link text that will be displayed to the user. When the user clicks on this link, the browser will navigate to the URL specified in the *href* attribute, which is "https://www.geeksforgeeks.org/". The target attribute *_self* ensures that the linked document will be loaded in the same window or frame where the hyperlink is clicked, and the current document will be replaced by the content of the linked document.