

Internet

PROBLEM

- Before 1960s in those days computers were build with large Architecture and was immobile
- For transferring data we need magnetic tapes to be transferred with data inbounded

Solution

- So for sharing the data from one computer to other computer an network is created which is called Internet
- The Internet started in the 1960s for government research
- January 1, 1983 is considered the official birthday of the Internet.
- Prior to this, the various computer networks did not have a standard way to communicate with each other.
- A new communications protocol was established called Transfer Control Protocol/Internetwork Protocol (TCP/IP)

Birth of Web

PROBLEM

- Data started sharing among internet in form of complex text.
- Difficult to understand by normal people
- Require High Knowledge of Networking Protocols

Solution

- A way to get centralized , simple and organized data in human readable form.
- So Tim Berners-Lee, a British scientist, invented the World Wide Web (WWW) in 1989, while working at CERN.
- The Web was originally conceived and developed to meet the demand for automated information-sharing between scientists in universities and institutes around the world

HTML

Hyper Text Markup Language

HTML was created by Sir Tim Berners-Lee in late 1991 but was not officially released. It was published in 1995 as HTML 2.0. HTML 4.01 was published in late 1999 and was a major version of HTML. HTML is a very evolving mark-up language and has evolved with various versions updating

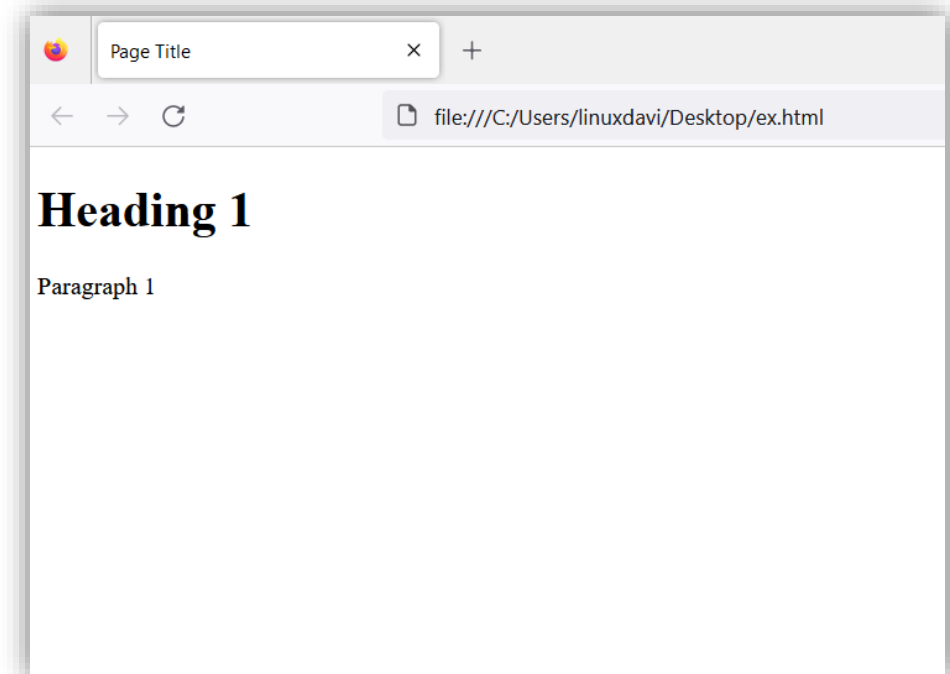
HTML Structure

The basic structure of an HTML document consists of 5 elements:

1. `<!DOCTYPE >`
2. `<html>`
3. `<head>`
4. `<title>`
5. `<body>`

HTML Structure E.g.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>Heading 1</h1>
    <p>Paragraph 1</p>
  </body>
</html>
```



Structure Elements Explanation

- The `<!DOCTYPE html>` declaration defines that this document is an HTML5 document
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the HTML page
- The `<title>` element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The `<body>` element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

Recommended Editor

- Visual Studio (Microsoft Corporation)
- Notepad++ ([Microsoft Corporation](#))
- Sublime Text (Created by **Jon Skinner** - it is a product of Sublime HQ Pty Ltd)

Starter Extension for Visual Studio

- Prettier
- Live Server

Introduction with <tags>

- HTML tags are like keywords which defines that how web browser will format and display the content.
- With the help of tags, a web browser can distinguish between an HTML content and a simple content.
- HTML tags contain three main parts: opening tag, content and closing tag. But some HTML tags are unclosed tag
- Browser read tags from top to bottom and left to right

`<h1> Heading </h1>`

The diagram illustrates the structure of an HTML tag. It shows the code `<h1> Heading </h1>` with three green arrows pointing down to its components: `<h1>` is the Opening Tag, `Heading` is the Content, and `</h1>` is the Closing Tag.

Opening Tag Content Closing Tag

Basic of HTML tags

- **HTML Headings**

1. HTML Headings are defined in range from h1 to h6
2. h1 is the Largest
3. h6 is the Smallest

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

Example

```
<!DOCTYPE html>
<html>
  <body>
    <h1> This is heading 1</h1>
    <h2> This is heading 2</h2>
    <h3> This is heading 3</h3>
    <h4> This is heading 4</h4>
    <h5> This is heading 5</h5>
    <h6> This is heading 6</h6>
  </body>
</html>
```

Basic of HTML tags

- **HTML Paragraph**

HTML paragraphs are defined with the `<p>` tag

Example

```
<!DOCTYPE html>
<html>
  <body>
    <p> This is 1st paragraph. </p>
    <p> This is 2nd paragraph. </p>
  </body>
</html>
```

This is 1st paragraph.

This is 2nd paragraph.

Basic of HTML tags

- **HTML Links**

HTML links are defined with the <a> tag

Example

HTML Google Link

HTML links are defined with the a tag:

[This is a link](https://www.google.com)



```
<!DOCTYPE html>
<html>
  <body>
    <h2> HTML Google Link </h2>
    <p> HTML links are defined with the a tag: </p>

    <a href="https://www.google.com"> This is a link </a>
  </body>
</html>
```

Basic of HTML tags

- **HTML Images**

HTML images are defined with the tag.

The source file (src), alternative text (alt), width, and height are provided as attributes:

HTML Images

HTML images are defined with the img tag:



Example

```
<!DOCTYPE html>
<html>
  <body>
    <h2>HTML Images</h2>
    <p>HTML images are defined with the img tag:</p>

  </body>
</html>
```

Basic of HTML tags

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Example

```
<!DOCTYPE html>
<html>
  <body>
    <h2>HTML Images</h2>
    <p>HTML images are defined with the img tag:</p>

  </body>
</html>
```

Basic of HTML tags

- Introduce Single sided tags
- `
` (Break Row)
- `<hr />` (Horizontal Line)

More tags to explore

1. `<i></i>` Italic format tag
2. `<u></u>` Underline format tag
3. `` Bold tag
4. `<s></s>` Strike Throw Text

HTML Table

`<table>` -> table tag
`<tr>` -> table row
`<th>` -> table header
`<td>` -> table data

```
<table>
  <tr>
    <th>Column1</th>
    <th>Column2</th>
    <th>Column3</th>
  </tr>
  <tr>
    <td>Row1 Data1</td>
    <td>Row2 Data2</td>
    <td>Row 3 Data3</td>
  </tr>
</table>
```

HTML List

- Unordered List
- Ordered List
- Other Lists

Unordered List Attribute

1. type

Can change via style EG
style:"list-style-type:disc"

1. Disc
2. Circle
3. Square

Order List Attributes

1. type
2. Start
3. reversed

Type = "A"

Type = "1"

Type = "a"

Type = "I"

Type = "i"