* Web development - refers to work involved in developing websites for the internet (world wide web) or intranet (private network)
* First invented in 1989 by TIM BERNERS- LEE
  + Examples of websites and their categories.
  + **Entertainment websites:**Netflix, YouTube, Showmax, twitch, etc
  + **Educational websites:**powerlearn, w3schools, etc
  + **Communication websites:** G-Mail, Facebook, WhatsApp, TikTok, Instagram, etc
  + **Components/Parts of Web Application**
  + The web application has a **front-end**and a **back-end.**
  + The front-end is What the user sees when they visit a website.
  + The front-end is created using **HTML, CSS,** and **Javascript.**
  + The back-end of a **web application** consists of *a database* where information is stored.
  + The back-end is programmed using **scripting languages** like **PHP, Python, Ruby on rail**, etc.
* **IDE-** software application that helps programmer develop software code efficiently

INTRODUCTION TO HTML

* HTML – Hypertext markup language.
* It describes the structure of web page.
* It consists of series of elements that tells the browser how to display the content.
* Web pages should have .html extension.

The HTML language supports a limited number of graphics formats. The most commonly used among these are;

* Graphics interchange format (.GIF)
* JPEG compressed files. (.JPEG or .JPG) extension.
* Naming conversion
* **Camel case-** first name starts with small letter. firstName
* **Snake case –** start with small letter and separate using underscore. first\_name.
* **Kebab case -** start with small letter and separate using hyphen. first-name.
* **Pascal case –** all names starts with capital letter. FirstName
* **Structure of html**
* It has three parts
* <html></html> - wraps the whole document.
* <head></ head > - contain general information about the document.e.g. title of document, links to other external websites. We use <title></ title > to title of html document.
* < body ></ body > - contain information to be displayed on the browser. Contain other elements.
* <html>

<head>

< title ></ title >

</ head>

< body ></ body >

* </html>
* **Inserting html links and images**
* Links allow users to click their way from page one to another
* The most important attribute of the **<a>** element is the **href** attribute, which indicates the link's destination.

To use image - **src**– the source attribute specifies the source of the image.

**Alt** – the alt specifies the alternate text of the image.

* **HTML FORM**
* Help collect user data.
* <form></form> element is used to define the start and end of form in document.
* Form should not be nested. Form as the action and method attribute.
* Action - This attribute defines the URL of the program that will receive and process the data submitted on the form. All forms need to be linked to a program in order that their data can be processed.
* Method - This attribute defines the method in which the data will be transmitted to the server. METHOD can take one of these values POST or GET. With the default method being GET.

### ****Basic Form Input****

HTML provides a number of different form fields whose contents can be edited by the user. The <**INPUT**> element is used to specify the majority of these. <**INPUT**> elements have an attribute value which can be one of the following types:

* CHECKBOX
* HIDDEN
* PASSWORD
* RADIO
* RESET
* SUBMIT
* TEXT

## **HTML Forms input fields**

### ****﻿Text Fields****

Text fields are used when you wish to accept a line of typed text, such as a person’s name. A text field takes the attributes; **NAME, VALUE, SIZE, MAXLENGTH.**

### ****﻿Password Fields****

These are identical to the text field, except the text is displayed as \*\*\*\* as it is entered.

### ****﻿Text Area Fields****

The <TEXTAREA>…</TEXTAREA> element is used to enable a user to enter more than one line of text. It takes three attributes i.e, NAME, ROWS, and COLS

### ****Menu Fields****

Drop-down menus can be created through the open-element <SELECT>…</SELECT>. Every option in this list is defined using an <OPTION> element. The <SELECT> element can take the attributes **MULTIPLE, NAME, and SIZE.**

* Html tables

## **HTML Tables**

**A table is a convenient way of displaying text, graphics, or a combination of both in rows and columns.**

**The <table>** tag defines an HTML table.

An HTML table consists of one **<table>** element and one or more **<tr>**, **<th>**, and **<td>** elements.

The **<tr>** element defines a table **row**, the **<th>** element defines a table header, and the **<td>** element defines a table cell.

An HTML table may also include **<caption>,<colgroup>,** **<thead>**, **<tfoot>**, and **<tbody>** elements.

**Heading Cells**

**The <th>** element stands for table header. Header cells are identical to data cells, except that they are in bold font and in the center of the cell.

**Adding Captions**

**The <caption> text </caption>** should appear within the **<table>** elements but **NOT**inside any row or cell definitions. It has attribute ALIG

**Altering the look of the table**

**The <TABLE>** element has the following attributes:

1. **BORDER,**this instructs the browser to display the table with borders ***around all table cells***.
2. **CELLSPACING=num**, this allows the amount of space inserted between individual cells to be altered.
3. **CELLPADDING=num** allows the amount of space between the border of a cell and the contents of the cells to be altered.
4. **WIDTH=num or percent.** It is used to define the desired width of the table

**Altering the look of a Table Cell**

**The <ht>**heading and **<td>** data elements use the following attributes:

1. **ALIGN**, controls whether text inside the table cell is aligned to the left, right, or centered within the cell.
2. **VALIGN**, controls whether text inside the table cell is aligned to the top, bottom, or vertically centered.
3. **NOWRAP**, this means that the lines within a cell cannot be broken to fit the width of the cell.
4. **COLSPAN**, specifies how many columns the cell should span.
5. **ROWSPAN**, Specifies how many rows the cell should span.