What Is UTF-8?

UTF-8 stands for “Unicode Transformation Format - 8 bits.” That’s not helpful to us yet, so let’s rewind (রিওয়াইন্ড- আবার গুটিয়ে নেওয়া) to the basics.

### **Binary: How Computers Store Information**

In order to store information, computers use a binary system. In binary, all data is represented in sequences of 1s and 0s. The most basic unit of binary is a bit, which is just a single 1 or 0. The next largest unit of binary, a byte, consists of 8 bits. An example of a byte is “01101011”.

### **ASCII: Converting Symbols to Binary**

The American Standard Code for Information Interchange (ASCII) was an early standardized encoding system for text. Encoding is the process of converting characters in human languages into binary sequences that computers can process.

## What is a markup language?

A markup language is a system of annotating a document to describe its structure and presentation. It uses tags or codes to define elements such as headings, paragraphs, lists, images, links, and more.

## Why is markup language important?

Markup language is essential because it allows you to structure and format content for various purposes. It provides a standardized way to define elements, making it easier for computers and software applications to interpret and display the content correctly.

## What are some examples of markup languages?

Some examples of markup languages include hypertext markup language (HTML), extensible markup language (XML), and Markdown. HTML is widely used for creating web pages, XML is used for data storage and exchange, and Markdown is popular for creating structured documents with plain text formatting.

## What is the difference between hypertext markup language (HTML) and extensible markup language (XML)?

HTML and XML are both markup languages, but they have different purposes. HTML is designed for creating web pages and focuses on defining the structure and presentation of content. XML, on the other hand, is a more general-purpose language used for storing and exchanging data in a structured manner.

## How does hypertext markup language (HTML) work?

HTML is a markup language used for creating web pages. You write HTML code using tags to define the structure and content of your page. Browsers then interpret the HTML code and display the page, accordingly, rendering- অনুবাদ (render- পারিশ্রমিক প্রদান করা, পেশ করা) headings, paragraphs, links, images, and other elements as specified.

## What are the basic building blocks of hypertext markup language (HTML)?

The basic building blocks of HTML is tags. Tags are enclosed in angle brackets (< >) and define different elements of a web page. For example, the

# tag represents a heading, the tag represents a paragraph, and the tag represents an image.

## What is the purpose of attributes in hypertext markup language (HTML) tags?

Attributes provide additional information about an HTML element. They are added within the opening tag of an element. Attributes can modify the behavior, appearance, or other characteristics of an element. For example, the "src" attribute in the  tag specifies the image source uniform resource locator (URL).

## What is the document object model (DOM) in relation to hypertext markup language (HTML)?

The DOM is a programming interface that represents the structure of an HTML or XML document as a tree-like structure. It allows you to access and manipulate the elements, attributes, and content of a document using scripting languages like JavaScript.

## What is the role of cascading style sheets (CSS) in relation to markup languages?

CSS is a style sheet language used to describe the presentation and formatting of a document written in a markup language such as hypertext markup language (HTML) or extensible markup language (XML). It allows you to control the layout, colors, fonts, and other visual aspects of your web pages by separating the content from its presentation.

## How do cascading style sheets (CSS) work with hypertext markup language (HTML)?

CSS works with HTML by selecting elements in the HTML document and applying styles to them. It uses selectors to target specific elements and property-value pairs to define the desired styles. CSS rules can be placed in a separate CSS file or embedded within the HTML document using the

**Http**

The http is a TCP(transmission Control Protocol) / ip based application layer protocol that’s allows web based application to communicate and exchange data.

Apache HTTP Server

The Apache HTTP Server Project is **an effort to develop and maintain an open-source HTTP server for modern operating systems** including UNIX and Windows.

**Laragon** is a portable, isolated, fast & powerful universal development environment for PHP, Node. js, Python, Java, Go, Ruby. It is fast, lightweight, easy-to-use and easy-to-extend.