

Introduction To Front-End Development



WWW

In 1991 Tim-Berners-Lee Introduced World Wide Web.

The web is a system of Interconnected hypertext documents and other resources accessible through the internet

The Web is primarily composed of webpages, websites and web applications.

Web browsers serve as the primary interface through which users access and interact with the web.



Web Development

The term web development refers to the process of creating websites and web applications.

This focuses on the user interface and the user experience of a website or web application.

Front-end developers use languages such as HTML, CSS, and JAVASCRIPT.

Web development also involves web security responsive design, performance optimization and website maintenance.

Web developers also use different types of tools and frameworks such as Angular, React etc.

Web Applications

Web applications are also known as web apps.

Software programs that run on web servers and are accessed through web browsers.

web applications are accessed remotely and do not require any installation or specific operating system.

Types of Web Applications

**Social
Networking
Platforms.**

**E-commerce
Applications.**

**Media
streaming
applications.**

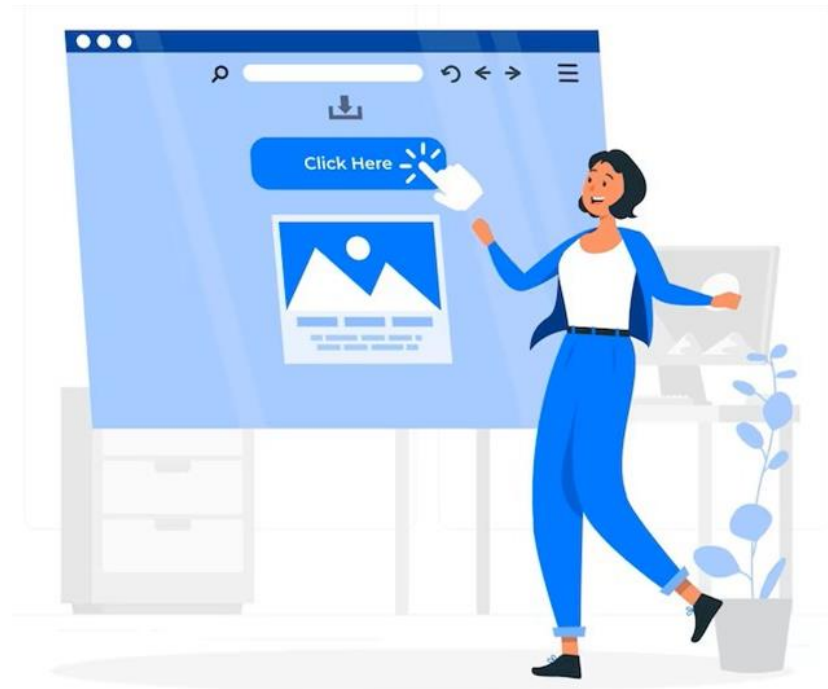
**Booking and
reservation
systems.**

**Media
streaming
applications.**

**Content
Management
Systems.**

**Online Banking
and financial
applications.**

**Web-based
email
clients.**



Web Client

A web client is also referred to as a web browser.

Software application installed on a user's device.

Popular web browsers include Google Chrome, Mozilla Firefox, Safari, Microsoft Edge, and Opera.

Web clients include :

- User Interface
- Requesting web content.
- Interactivity.
- Displaying web content.



Web Server

Web server is a software application that serves web content in response to requests from web clients.

The primary objective of web servers is to collect, process and provide web pages to the user.

Popular web servers include HTTP Server, Microsoft IIS , Apache Web Server, NGINX etc.

Web Server

The intercommunication of a web server with a web browser is done with the help of a protocol named HTTP (Hypertext Transfer Protocol).

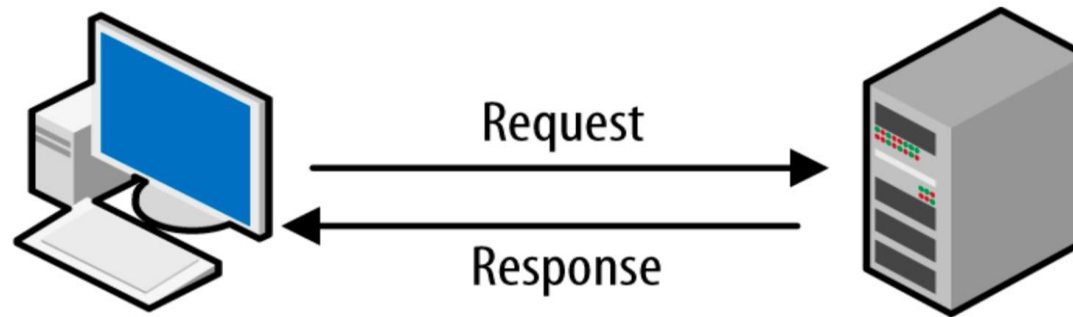
Stored web pages mostly use static content, containing HTML documents, images, style sheets, text files, etc.

Web servers can serve static as well as dynamic content.



Client Server Communication

Any web user is required to type the URL of the web page in the address bar of the web browser.



Web browser will fetch the IP address and direct the browser to the web server.

Web browsers will request the web page from the web server with the help of an HTTP request.

The server responds by sending back the requested page.

HTTP

HTTP or hypertext transfer protocol

It is a set of rules that the server needs to follow to transmit all kinds of files like images, text, audio, video, and other kinds over the world wide web (www).

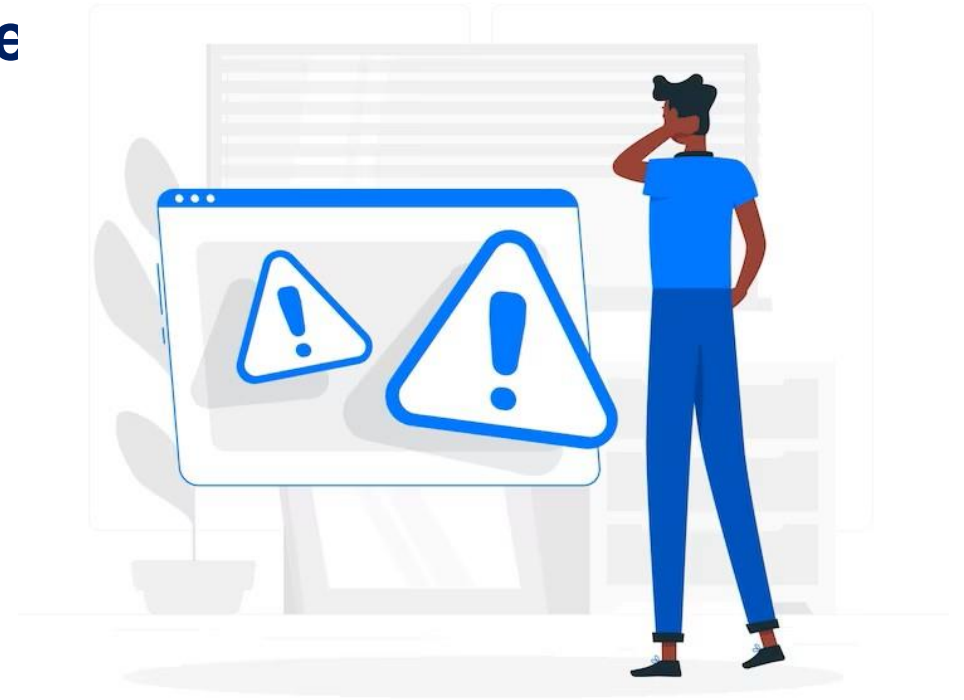
HTTP is a stateless protocol.

Many protocols like DNS, FTP, HTTP, SMTP (simple mail transfer protocol), and SSL (Secure sockets layer) are used.

HTTP Methods

The most widely used HTTP methods are

- **GET**
- **POST**
- **PUT**
- **DELETE**



HTTP Status Codes

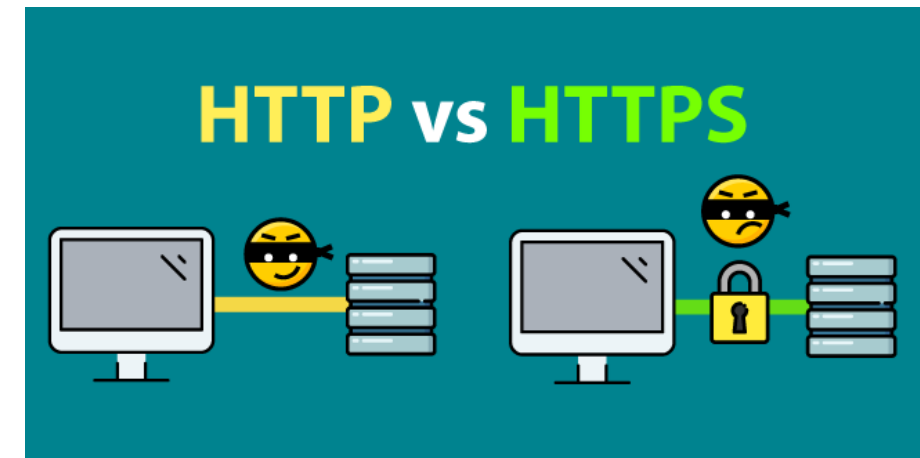
- **1xx—Informational: The server has not fully completed the request, it is still thinking and is in a transitional phase**
- **2xx—Successful: The server has successfully completed the request**
- **3xx—Redirects: This block is for redirections, it means you requested an address but you were sent somewhere else**
- **4xx—Client Errors: There is some error from your side**
- **5xx—Server Errors: There is some error on the server-side.**

HTTP Vs Https

HTTP request or response is not encrypted and is vulnerable to various types of security attacks and uses port 80.

HTTPS is a more secure way of communicating with the web server.

HTTPS, means HTTP over TLS/SSL.
Here S signifies 'Secure'. It uses port 443





**That's all,
Thank You!!**