INTRODUCTION

Internet

The Internet is a global network of interconnected computers and devices that communicate with each other using a common set of protocols.

Protocols:

Protocols are rules and conventions that govern how data is transmitted over the internet. HTTP (Hypertext Transfer Protocol) and HTTPS (HTTP Secure) are examples of protocols used for transmitting web pages.

How the web works

What is website?

It's a collection of related web pages.

What is a web page?

A document that can be displayed in a web browser.

WEB PAGE

HTML
CSS
JS

Structure
Presentation
Interaction

Types of website

There are three types of websites on the internet.

1. Static:

   Imagine a static website as a digital brochure. It's like a set of pages that always look the same.

   3.

2. Dynamic:

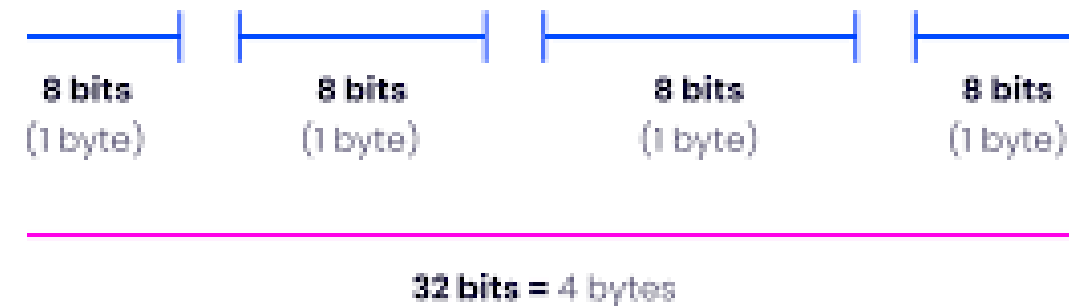   **Dynamic website as a wizard. It can change and adapt based on what you do.**

3. Responsive:

   Imagine a website that's like a shape-shifter. It can look good on any device, whether you're on a giant computer screen or a tiny smartphone.

IP Address:

What is IP Address?

17.172.224.47

8 bits (1 byte) 8 bits (1 byte) 8 bits (1 byte) 8 bits (1 byte)
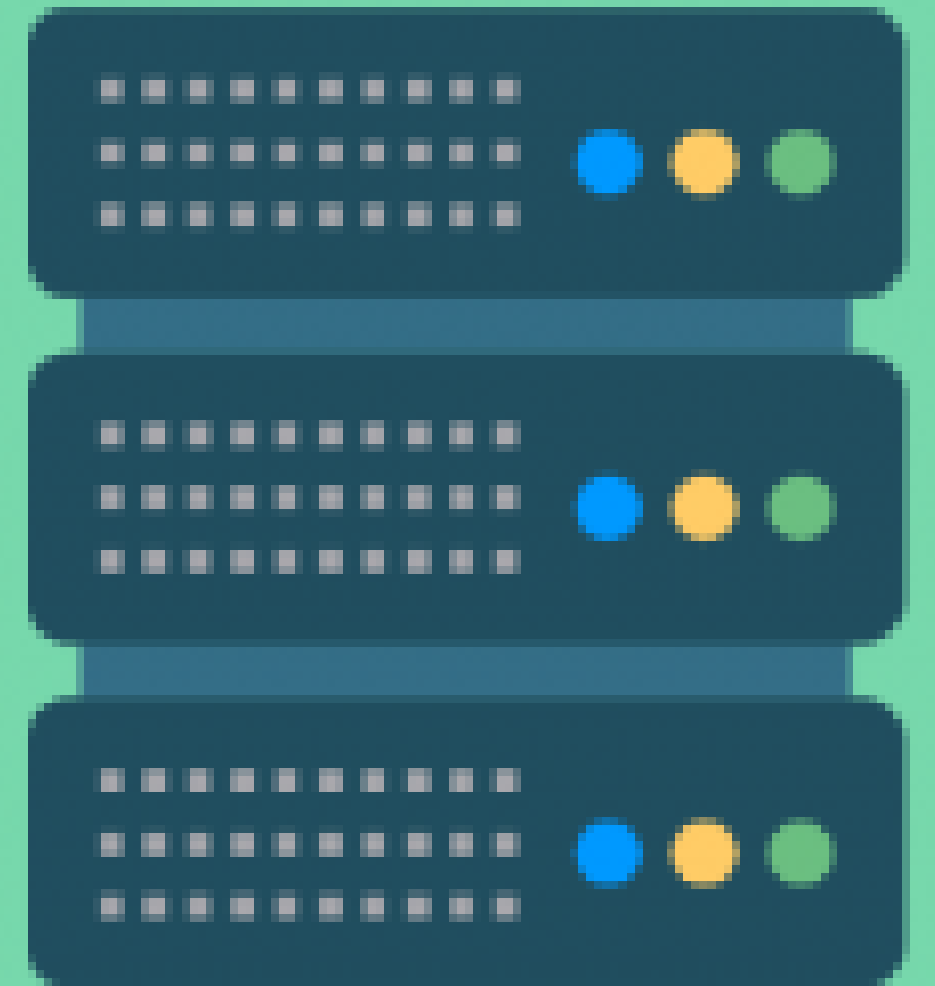
32 bits = 4 bytes

IPX

Computers on the internet have an IP address IP address involves either manual configuration (static IP) or dynamic assignment through DHCP.

FRONT END

{ HTML, CSS,JAVASCRIPT, REACT }

BACK END

Front- end:

- The term "frontend" refers to the client side of a website or web application.

- It encompasses all the components and elements that users interact with directly.

- Frontend development involves designing and implementing the user interface (UI) and user experience (UX) of a website, making it visually appealing and user-friendly.

Back-end:

The backend refers to the server side of a web application or software, responsible for managing data, business logic, and server-side operations.

Functionality:

- Handles data storage, retrieval, and manipulation.
- Executes business logic and processes user requests.
- Manages user authentication and authorization.

HTML

HTML, or HyperText Markup Language, is the standard markup language used to create the structure and content of web pages.

Basic HTML Page:

```
<!DOCTYPE html>              ←————————— Tells version of HTML
<html>          ←————— HTML Root Element

<head>      ←————— Used to contain  page HTML metadata
  <title>Page Title</title>   ←————————Title of HTML page
</head>

<body>      ←————— Hold content of HTML
  <h2>Heading Content</h2>   ←————————— HTML headling tag
  <p>Paragraph Content</p>   ←———————— HTML paragraph tag
</body>

</html>
```

Html tags and elements

CSS

- **CSS stands for Cascading Style Sheets.**

- **CSS is a stylesheet language used for describing the presentation of a document written in HTML or XML, including aspects such as layout, colors, fonts, and spacing**

- **Key Properties: Selectors, properties, values, the box model, and the concept of cascading in styles**

Full stack Development Roadmap