HTML Basics

What is Frontend?

3 Tiers Architecture

Presentation Tier   Application Tier   Data Tier

Frontend   Backend   Database

…As a user, I enter "www.google.com" in the url address…

What will happen when we visit an URL?

URL vs IP Address

DNS - Domain Name System : **https://www.cloudflare.com/en-in/learning/dns/what-is-dns/**

…now the browser received the API address …

What is HTTP?

Hyper Text Transfer Protocol

HTTP Request Structure   HTTP Response Structure
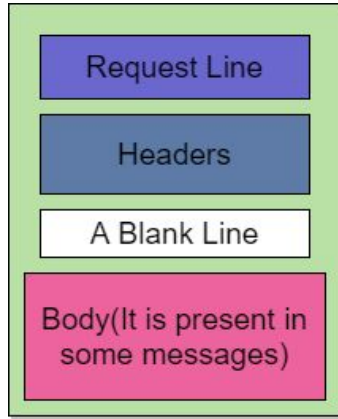
| Request Line |
| Headers |
| A Blank Line |
| Body(It is present in some messages) |

Request Message

| Status Line |
| Headers |
| A Blank Line |
| Body(It is present in some messages) |
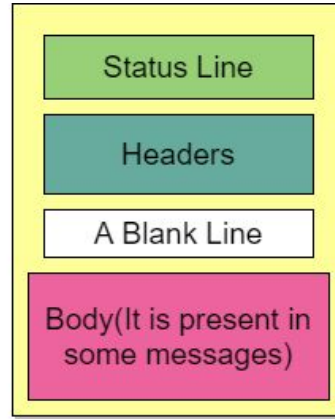
Response Message

HTTP Methods

Get — Retrieve Data from server

Post — Handle with data / Create new entry

Put — Replace the whole data entry

Patch — Update part of the data entry

Delete — Delete the data entry

Restful API (constraints)- Representational State Transfer
CRUD - Create/ Read/ Update/ Delete

Different responses from server

HTTP Status Code

100 - 199 :   Information Responses   100 : Continue

200 - 299:   Successful Responses   200: OK   201: Created

300 - 399:   Redirection Messages   301: Moved Permanently 301 : Moved Permanently

400 - 499:   Client Error Responses   400: Bad Request   401:Unauthorized 404: Not Found
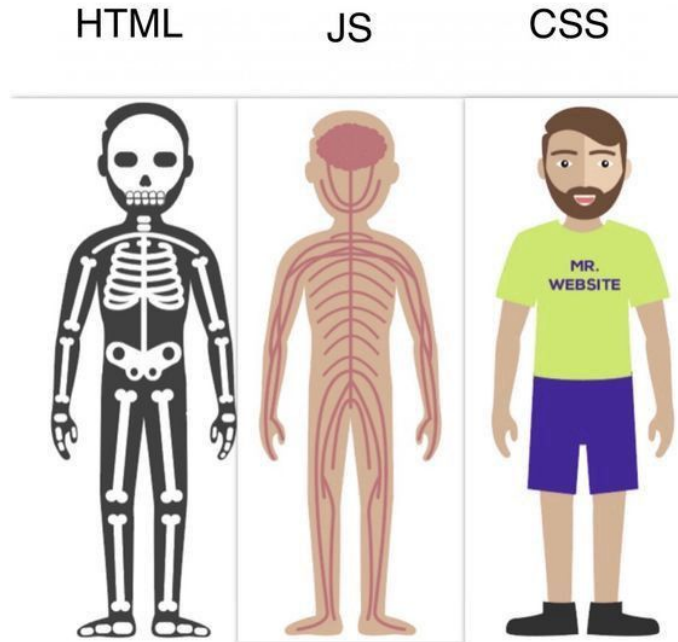
500 - 599:   Server Error Responses   500: Internal Server Error   502: Bad Gateway

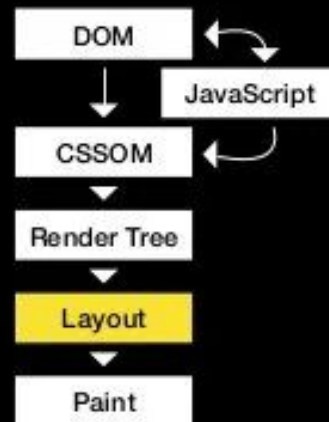…after browser get response from server, now…

Relationships among HTML/CSS/JS

HTML   JS   CSS

Browser starts rendering

HTML —> DOM (Document Object Model)

CSS —> CSSOM (CSS Object Model)

JS —> Compiled and manipulate HTML & CSS

Use Chrome Developer Tool

Elements   — DOM Tree, Styling

Console   — Console.log

Sources   — Uglify/Minify Codes

Network   — HTTP requests/ Network flow

Application   — Storage

Lighthouse   — Performance Test

Local Storage Vs. Session Storage vs. Cookies

	Cookies	Local Storage	Session Storage
Capacity	4 KB	5 MB	5 MB
Expiration	Manually Set	Never	On Tab Close
Accessible server-side	Yes	No	No

… **Now it is time to write a HTML file** …

How to create a html file?

HTML —> Hyper Text Markup Language

Extensions: .html

<!DOCTYPE>   <html>

<head>   <meta>   <title>

<link>   <script>   <style>

<body>

HTML Elements

<h1>   <div>   <span>

<input>   <button>

          <strong>

<video>   <audio>   <img>

<svg>   <canvas>   <iframe>

Self-Closed Tag

Semantic HTML

A semantic element clearly describes its meaning to both the browser and the developer.

<article>   **<aside>**   **<details>**

<header>   **<footer>**

<section>   **<main>** ...

SEO- Search Engine Optimization

https://developers.google.com/search/docs/beginner/seo-starter-guide#descriptionmeta