

JavaScript



JavaScript



JavaScript

Javascript in Frontend



JavaScript



JavaScript

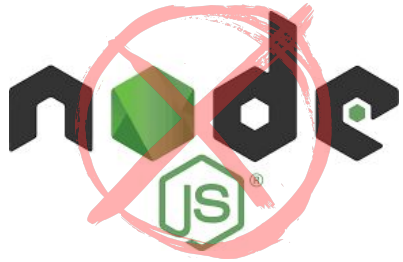


CSS



HTML

Frontend



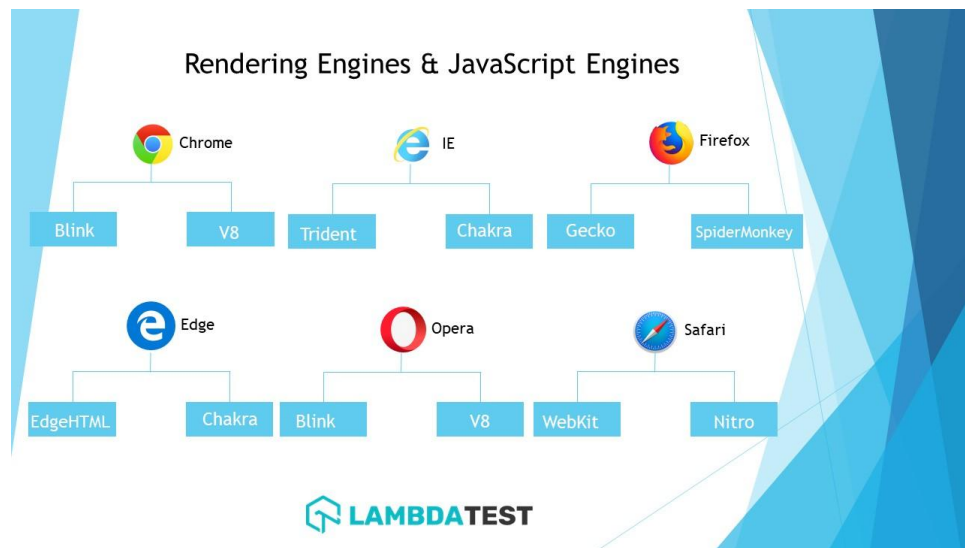
Rendering Engine

1. Blink – Used in Google Chrome, and Opera browsers.
2. WebKit – Used in Safari browsers.
3. Gecko – Used in Mozilla Firefox browsers.
4. Trident – Used in Internet Explorer browsers.
5. EdgeHTML – Used in Edge browsers.
6. Presto – Legacy rendering engine for Opera.

JavaScript Engine is software almost similar to Node js but specific for a browser

JavaScript Engine

1. V8 – Used with Blink
2. Nitro – Used with Webkit
3. SpiderMonkey – Used with Gecko
4. Chakra – Used with Trident & EdgeHTML



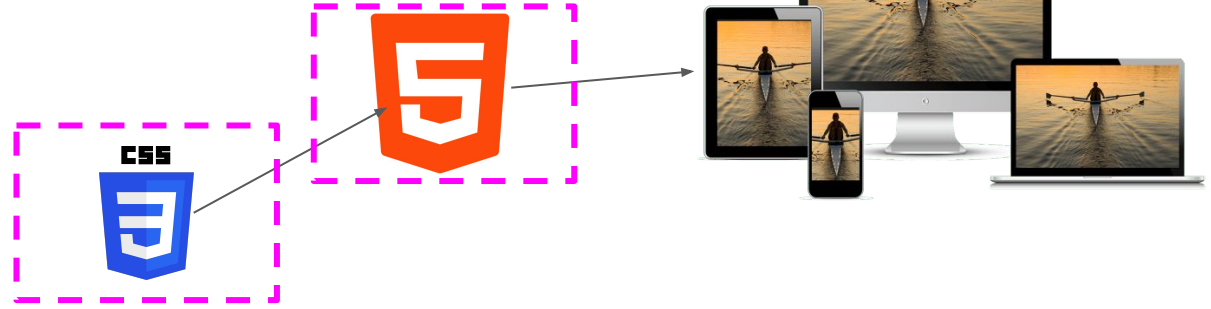


Frontend




HTML provides the basic structure of sites, which is enhanced and modified by other technologies like **CSS** and **JavaScript**

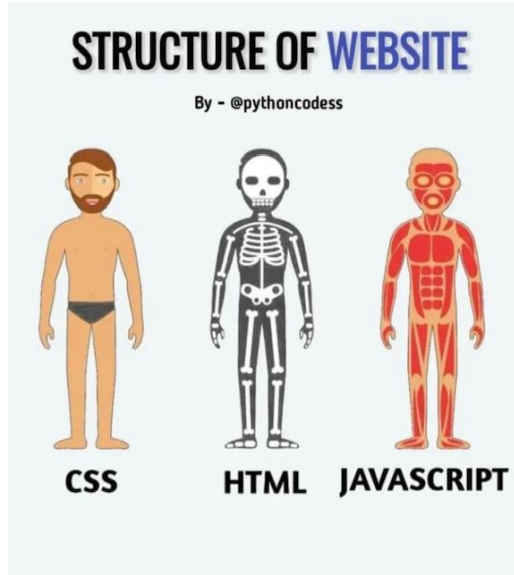
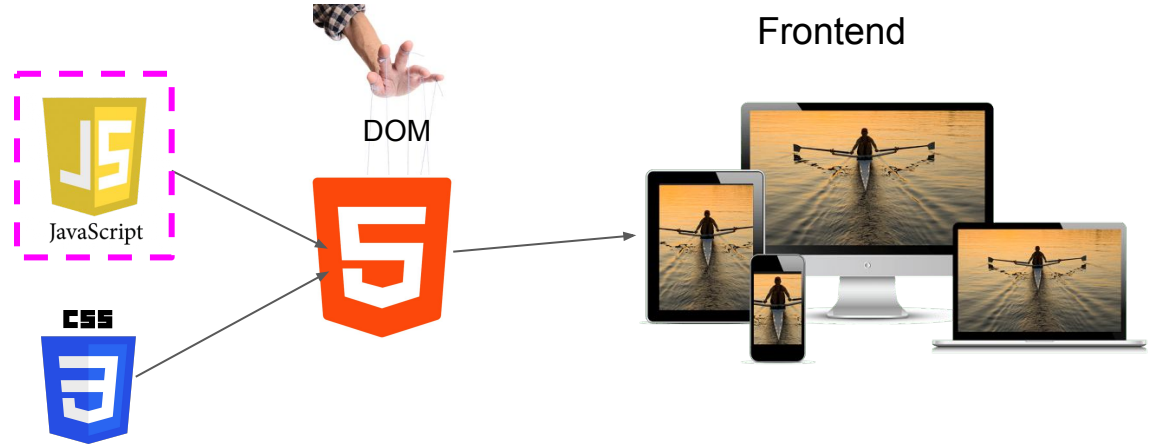
Frontend




We saw in UIB module how modified HTML and styles

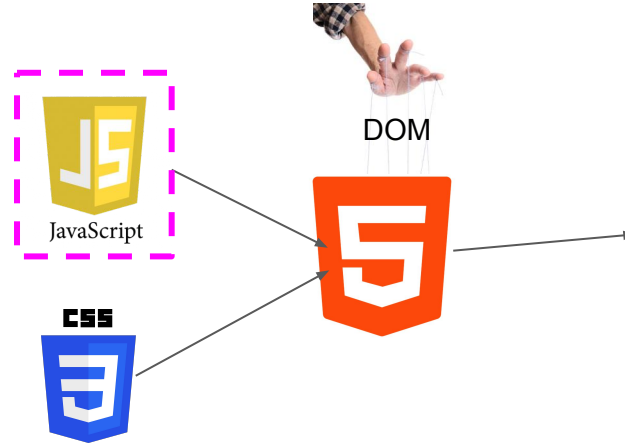
1- Javascript modified HTML(DOM)

DOM = 



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DOM = 



In javascript world, we call HTML
=> DOM (document object model)

```
<!DOCTYPE html>
<html dir="ltr" lang="en" class>
  <head>...</head>
  <body style="background-color: rgb(255, 255, 255);">
    <iframe id="backgroundImage" src="chrome-untrusted://new-tab-page/custom_bg...>
    <ntp-app iframe-one-google-bar-enabled_ modules-visible_ promo-and-modules-...>
      <#shadow-root (open)>
        <!--_html_template_start-->
        <style scope="cr-hidden-style">[hidden], :host([hidden]) {
          display: none !important;
        }
        </style>
        <style scope="cr-icons">...</style>
        <style include="cr-hidden-style cr-icons" scope="cr-shared-style">...</st...>
        <style include="cr-shared-style" scope="ntp-app">...</style>
        <div id="content" style="--ntp-theme-text-color: rgba(0, 0, 0, 1); --nt...>
          (241, 243, 244, 1); --ntp-logo-color: inherit;">...</div> == $0
        <dom-if restamp style="display: none;">...</dom-if>
        <dom-if restamp style="display: none;">...</dom-if>
        <cr-toast id="dismissModuleToast" duration="10000">...</cr-toast>
        <dom-if restamp style="display: none;">...</dom-if>
        <div id="oneGoogleBarOverlayBackdrop"></div>
        <svg>...</svg>
        <!--_html_template_end-->
      </ntp-app>
```


Frontend

1- Javascript modified HTML(DOM)

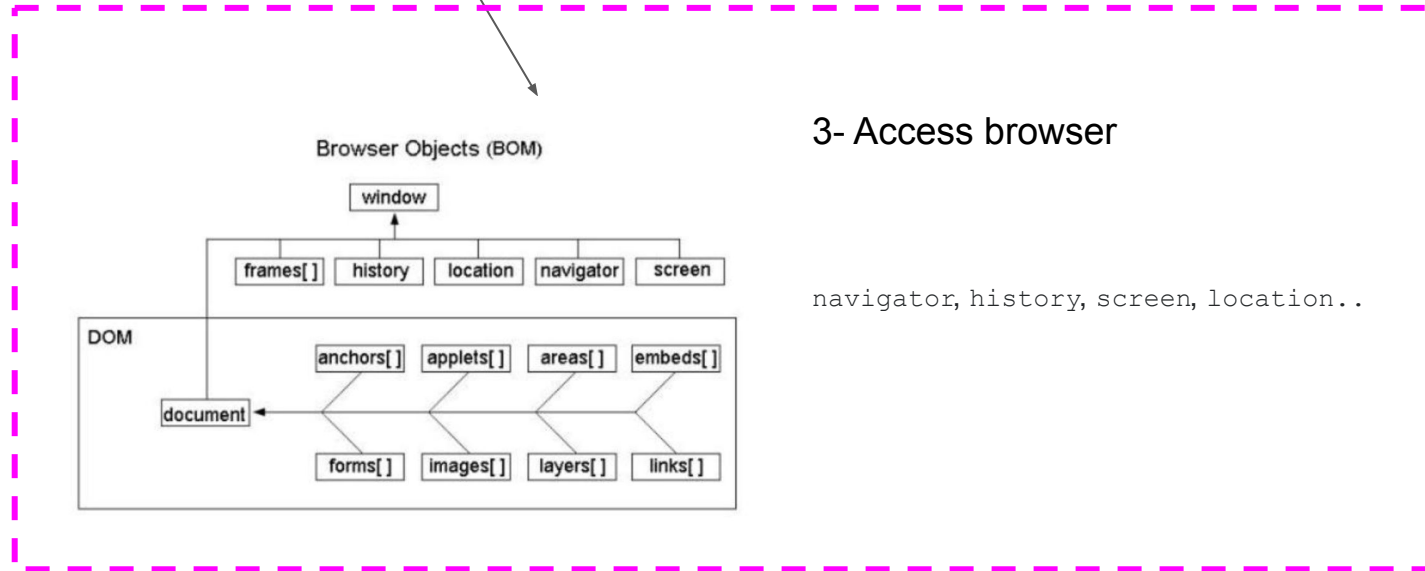


2- Javascript send Http requests (fetch)



Frontend

- 1- Javascript modified HTML(DOM)
- 2- Javascript send Http requests (fetch)

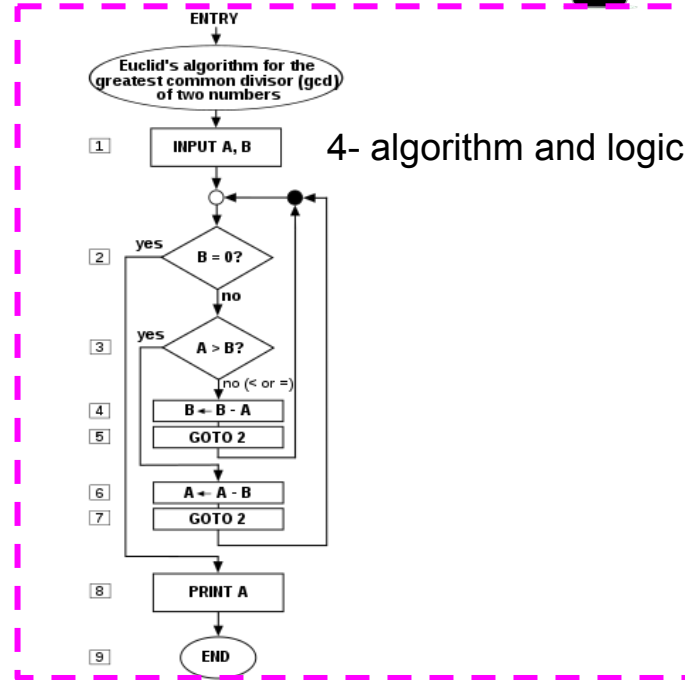


Frontend

- 1- Javascript modified HTML(DOM)
- 2- Javascript send Http requests (fetch)
- 3- Access browser



Frontend



Frontend

- 1- Javascript modified HTML(DOM)
- 2- Javascript send Http requests (fetch)
- 3- Access browser

4- algorithm and logic (for, function,..)



Frontend

Programing basics

Frontend

- 1- Javascript modified HTML(DOM)
- 2- Javascript send Http requests (fetch)
- 3- Access browser

4- algorithm and logic (for, function,..)



Frontend

Backend



- * No Database
- ** No file system