

**WELCOME, WELCOME,  
WELCOME!**



# BUILD A FULL-STACK WEB APP IN A WEEKEND!



JONAS SCHMEDTMANN



@JONASSCHMEDTMAN





# TODAY I LEARNED

SHARE A FACT

ALL

TECHNOLOGY

SCIENCE

FINANCE

SOCIETY

ENTERTAINMENT

HEALTH

HISTORY

NEWS

React is being developed by Meta (formerly facebook) (Source)

TECHNOLOGY

👍 24

🤔 9

🚫 4

The shortest war in history lasted 38 minutes! It was between Britain and Zanzibar on August 27, 1896. It was over the ascension of the next Sultan in Zanzibar and resulted in a British victory. (Source)

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SCIENCE

👍 6

🤔 13

🚫 2

Human DNA is 99.9% identical from person to person (Source)

SCIENCE

👍 1

🤔 9

🚫 1

1

Set up your **code editor**

2

Basics of the **web** and **web development**

3

Start the project by writing **HTML** code

4

Styling and creating layouts with **CSS**

5

Online database and API with **Supabase**

6

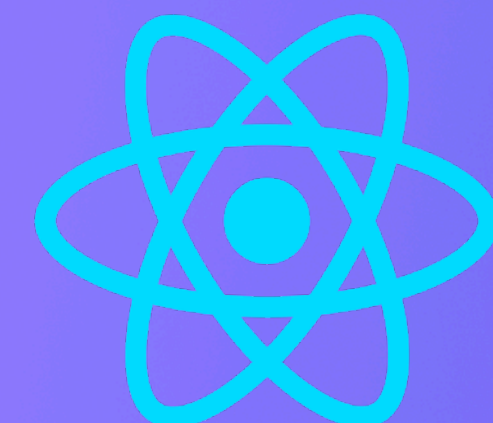
Use **JavaScript** to load app data

7

Build the final app with the **React** library

8

Deploy the final project to a **web server**!





- ✓ A **different** approach
- ✓ Try out HTML, CSS, JavaScript, React
- ✓ Understand if web development is a **good career choice**
- ✓ You will learn **important fundamentals**
- ✓ Know what technologies are used in the **real-world industry**

- ⊘ Not a “complete” web developer course
- ⊘ Will not make a web developer
- ⊘ You will not master web technologies
- ⊘ Don’t expect to build complex apps







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## SECTION

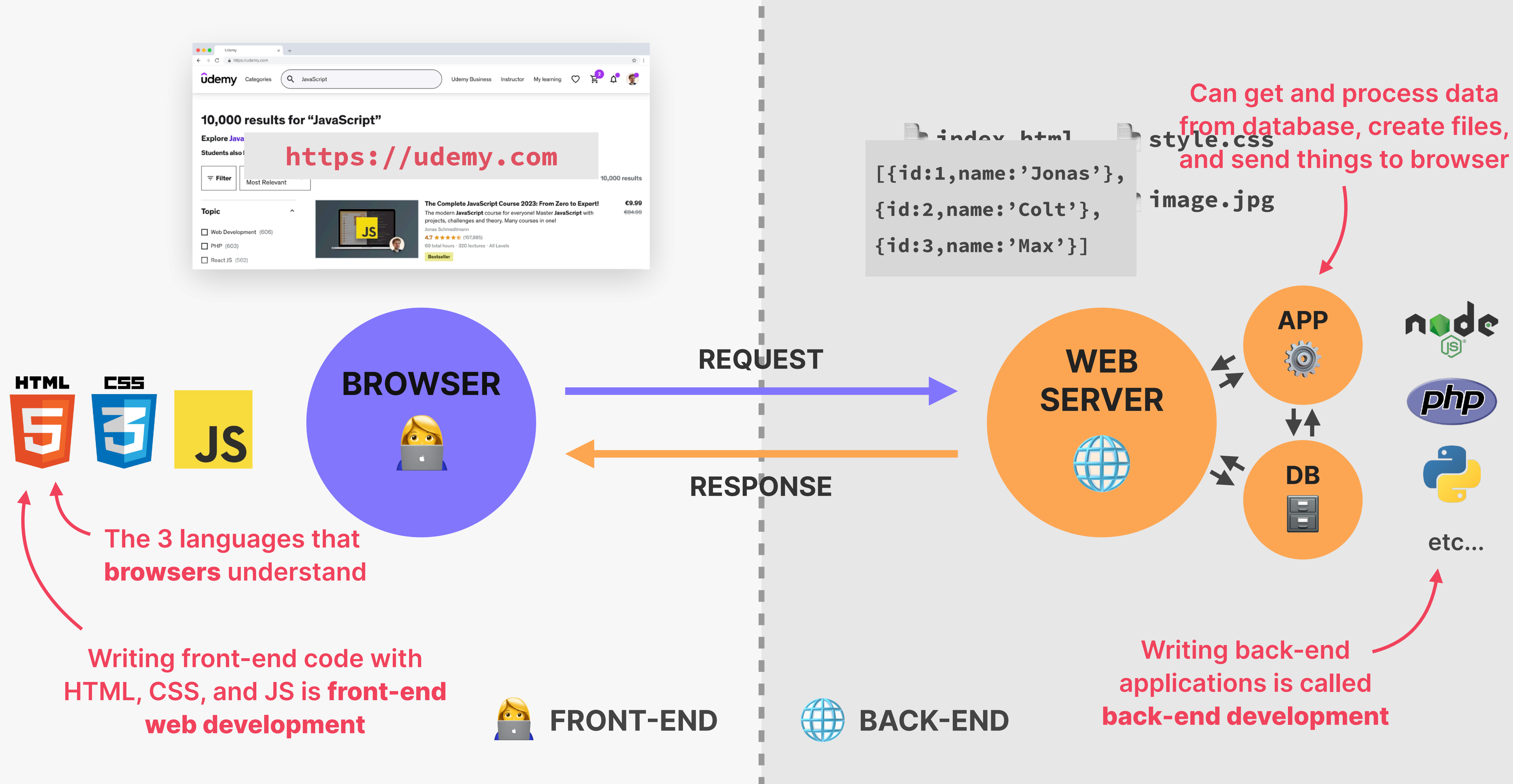
WELCOME, WELCOME, WELCOME!

## LECTURE

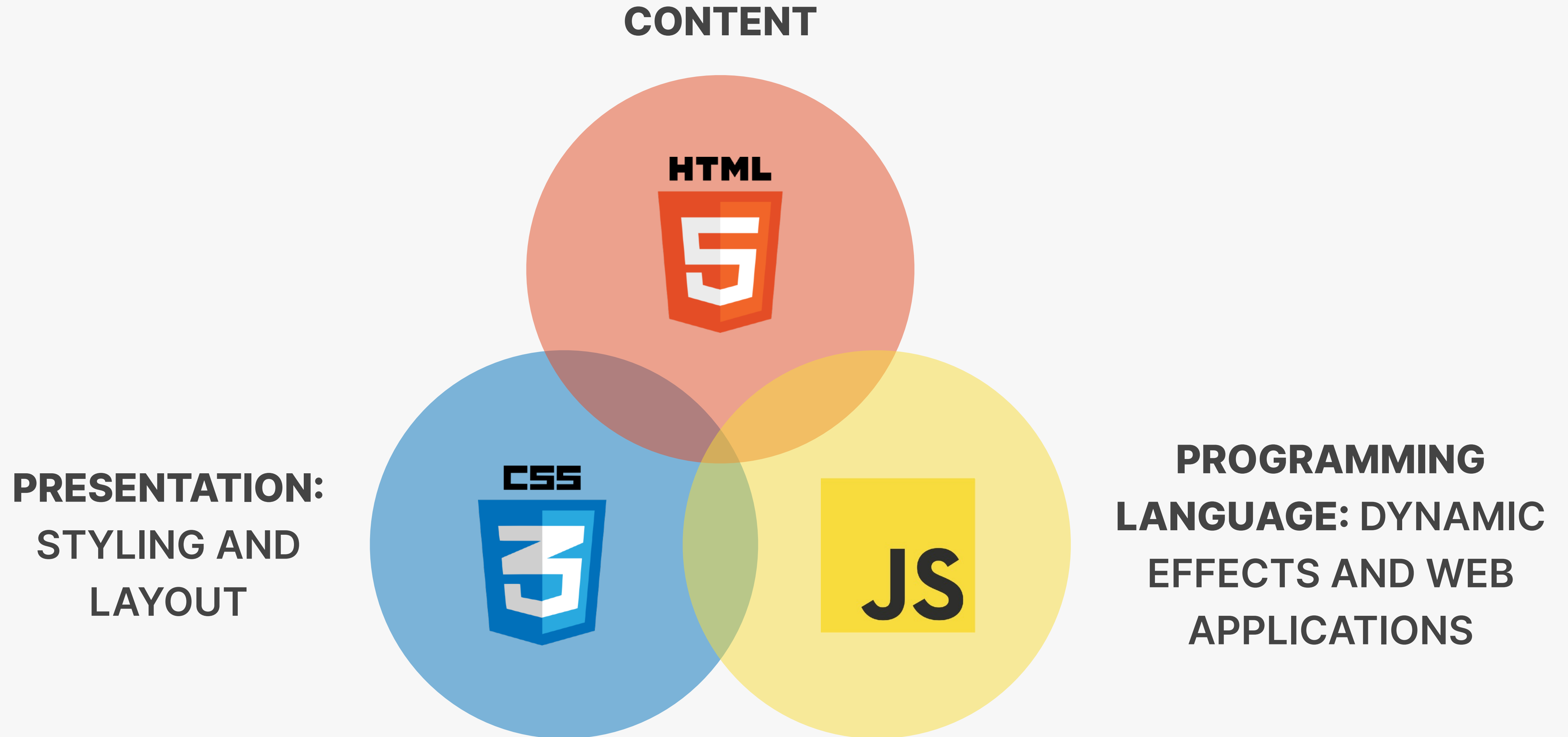
A HIGH-LEVEL OVERVIEW OF WEB  
DEVELOPMENT



# AN OVERVIEW OF THE WEB AND WEB DEVELOPMENT



# THE 3 LANGUAGES BROWSERS UNDERSTAND (FRONT-END)







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# HTML – BUILDING THE APP SKELETON





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## SECTION

HTML – BUILDING THE APP  
SKELETON

## LECTURE

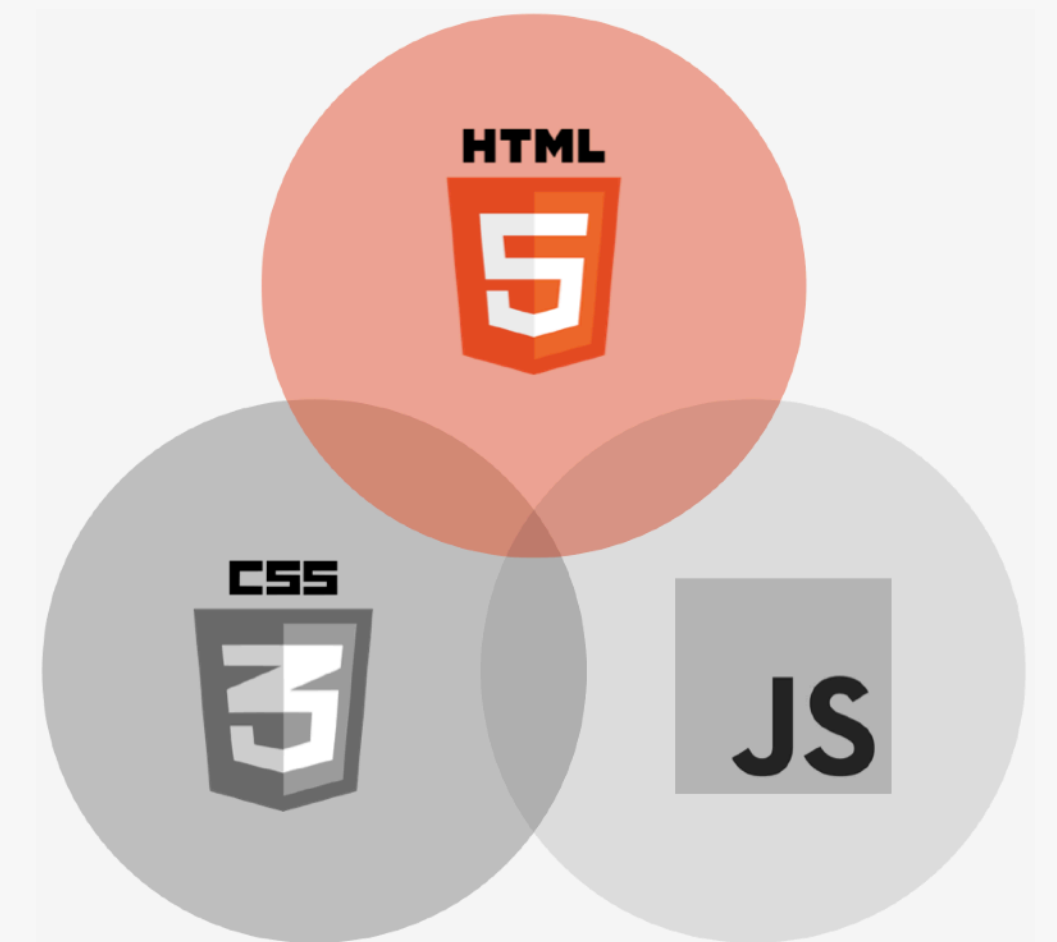
WHAT IS HTML?



# WHAT IS HTML?

## HTML

- 👉 **HyperText Markup Language**
- 👉 HTML is a markup language that web developers use to **structure and describe the content** of a webpage (not a programming language)
- 👉 HTML consists of **elements** that describe different types of content: paragraphs, links, headings, images, video, etc.
- 👉 Web browsers understand HTML and **render HTML code as webpages**





# ANATOMY OF AN HTML ELEMENT







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# CSS – STYLING THE APP



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## SECTION

CSS – STYLING THE APP

## LECTURE

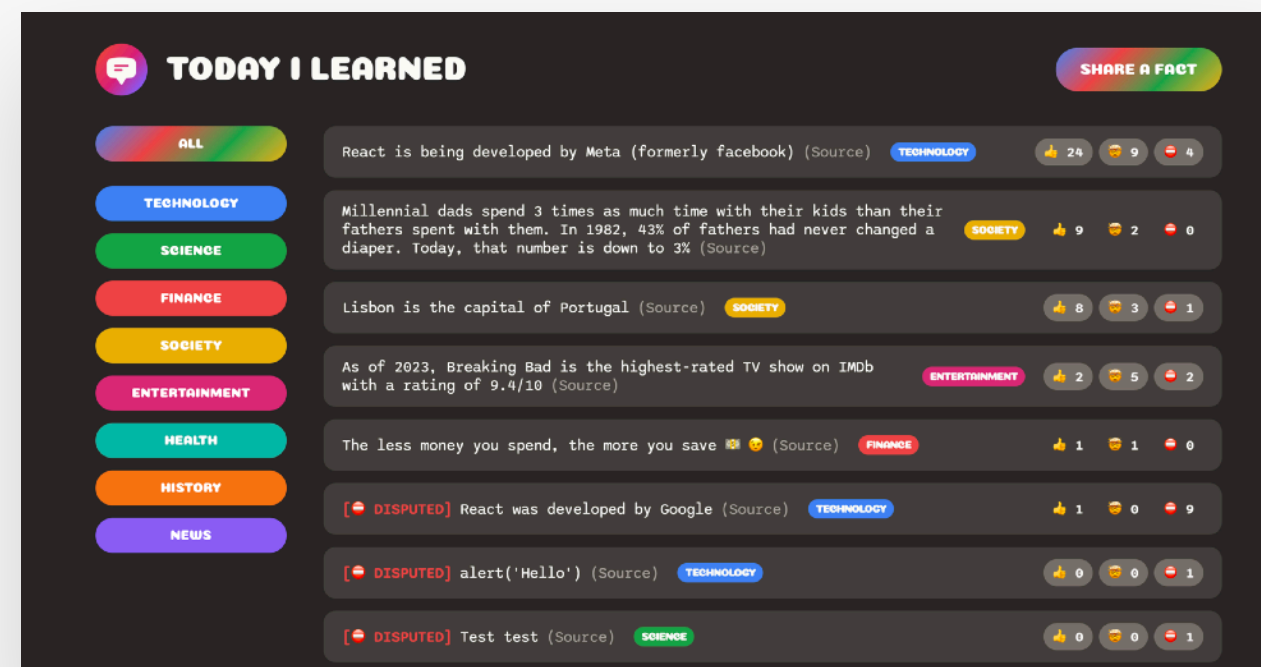
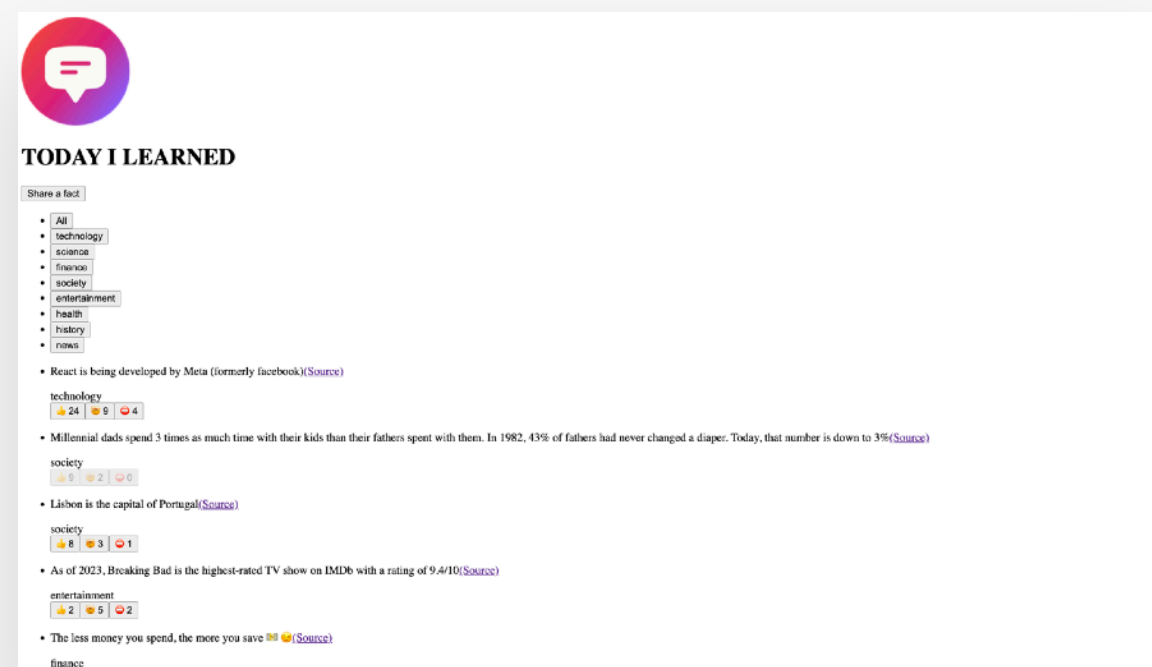
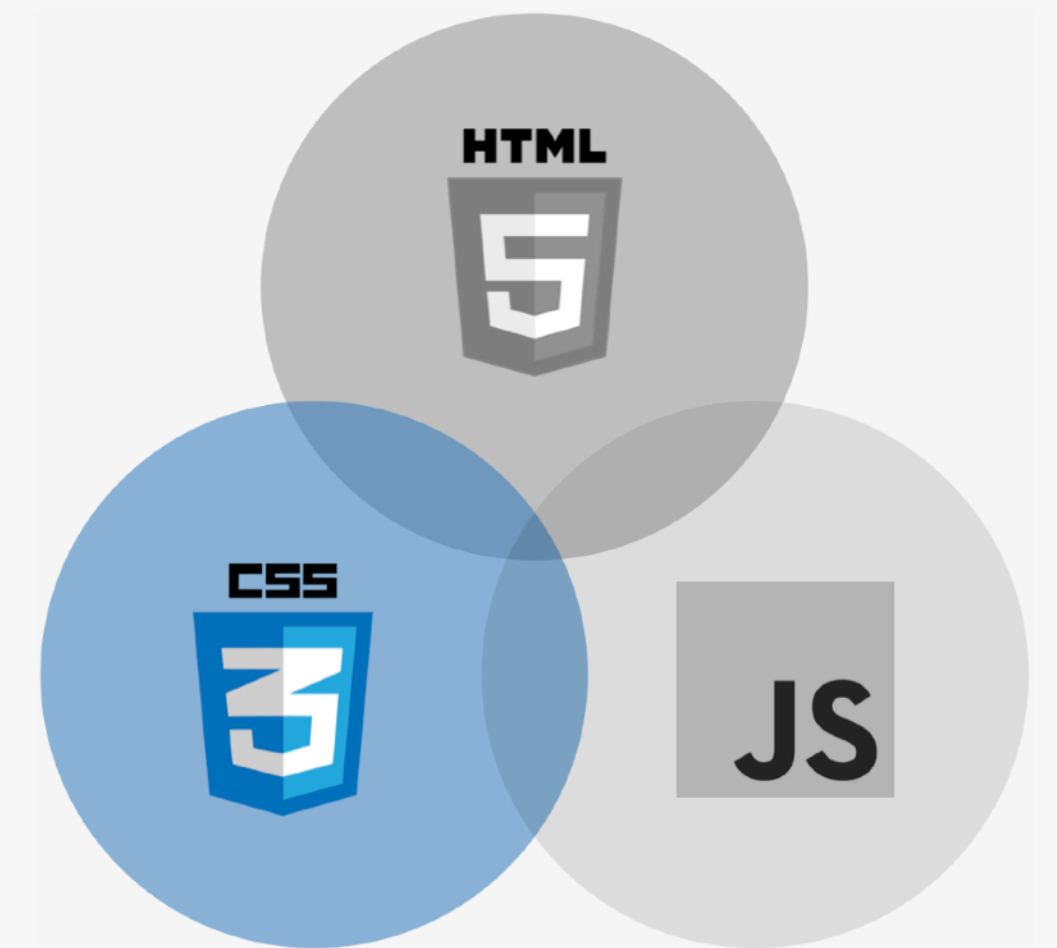
WHAT IS CSS?



# WHAT IS CSS?

## CSS

- 👉 Cascading Style Sheets
- 👉 CSS describes the **visual style and presentation** of the **content** written in HTML
- 👉 CSS consists of countless **properties** that developers use to format the content: properties about font, text, spacing, layout, etc.

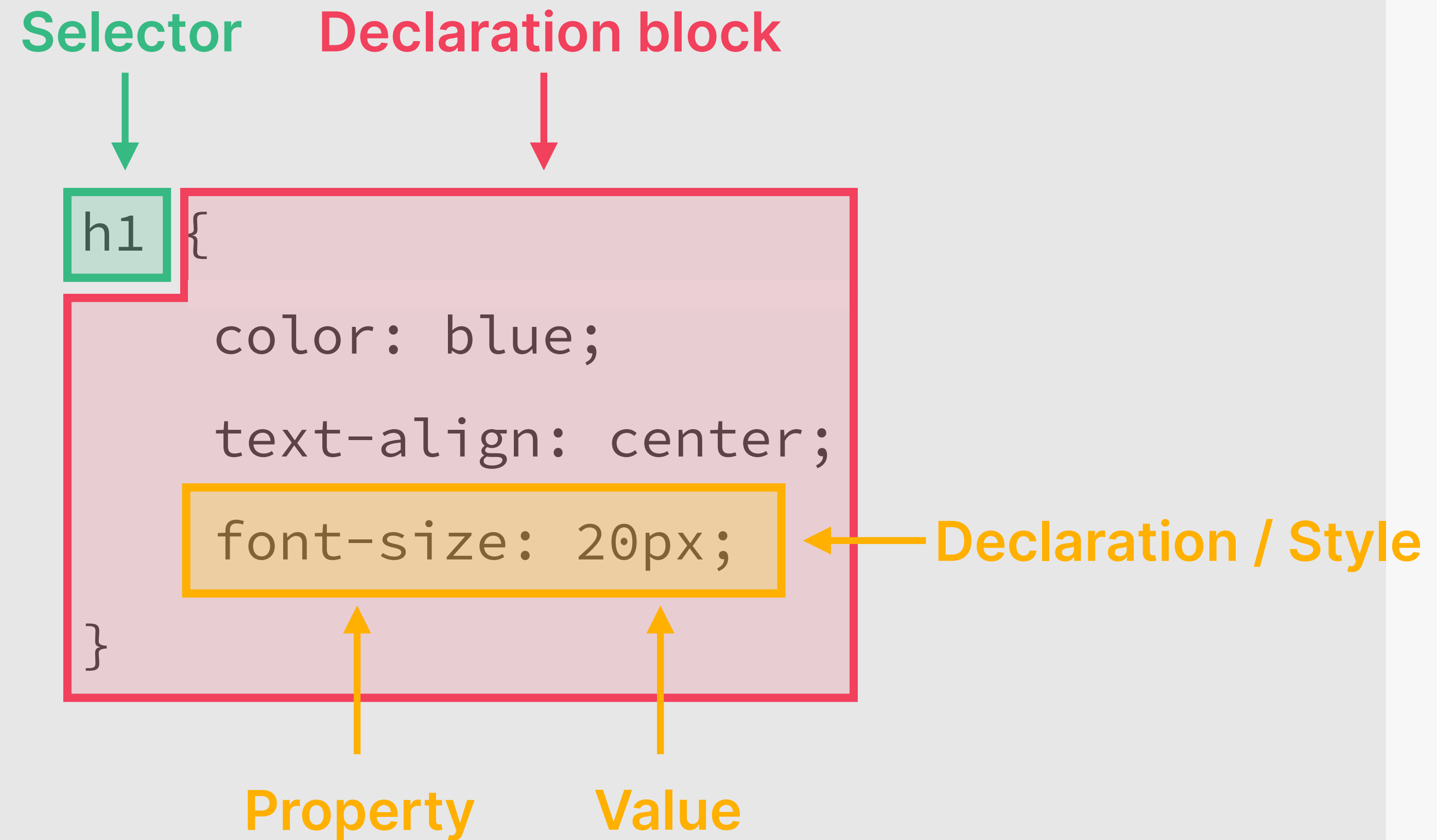


No need to need  
to know all the  
properties



# HOW WE SELECT AND STYLE ELEMENTS

## A CSS RULE







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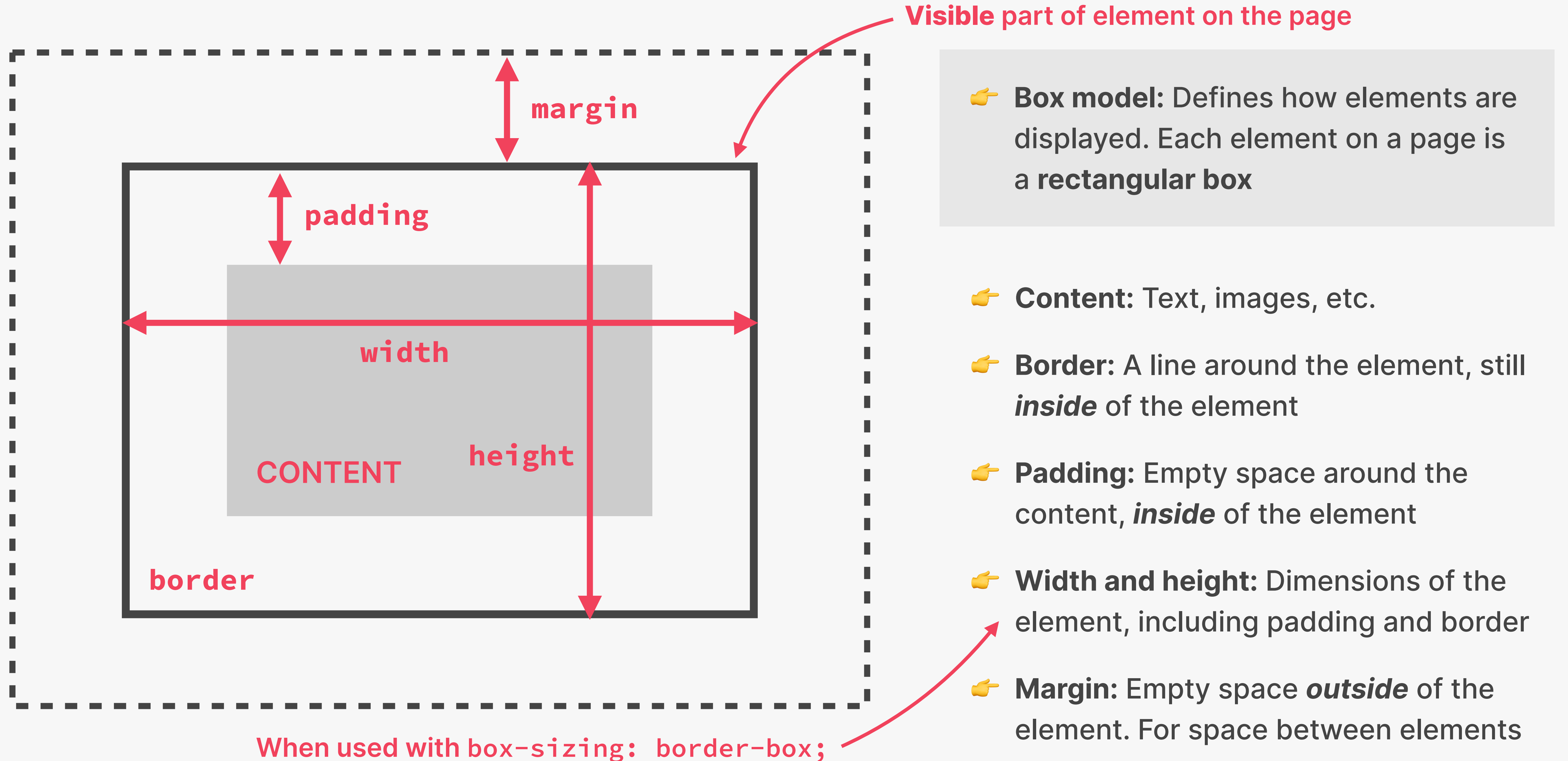
CSS – STYLING THE APP

## LECTURE

THE CSS BOX MODEL



# THE CSS BOX MODEL







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# SUPABASE – STORING THE APP DATA



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## SECTION

SUPABASE – STORING THE APP  
DATA

## LECTURE

WHAT IS SUPABASE?



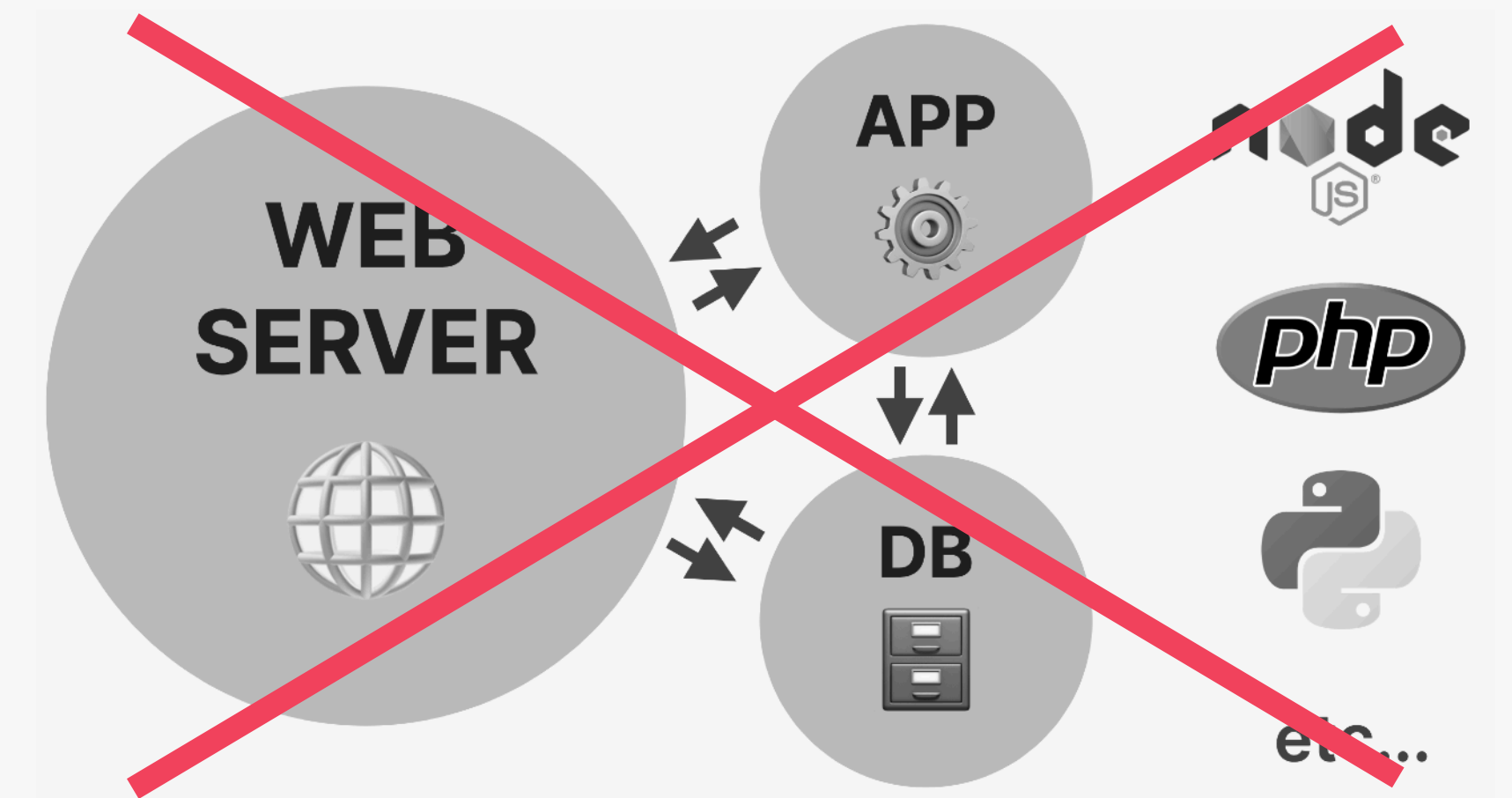
# WHAT IS SUPABASE?

## SUPABASE

- 👉 Service that allows developers to easily create a **back-end with a database**
- 👉 **No** back-end development needed 🥳
- 👉 Automatically creates a **database** and **API** so we can easily request and receive data from the server
- 👉 **API: Application Programming Interface.** In this case, an API is a program that **receives requests for data** and then **sends that data back** as JSON

Common data format,  
similar to JS objects

## BACK-END



WITH SUPABASE, WE DON'T NEED  
TO DO ANY OF THIS MANUALLY!  
IT'S ALL INCLUDED 🥳







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# JAVASCRIPT – MAKING THE APP INTERACTIVE





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## SECTION

JAVASCRIPT – MAKING THE APP  
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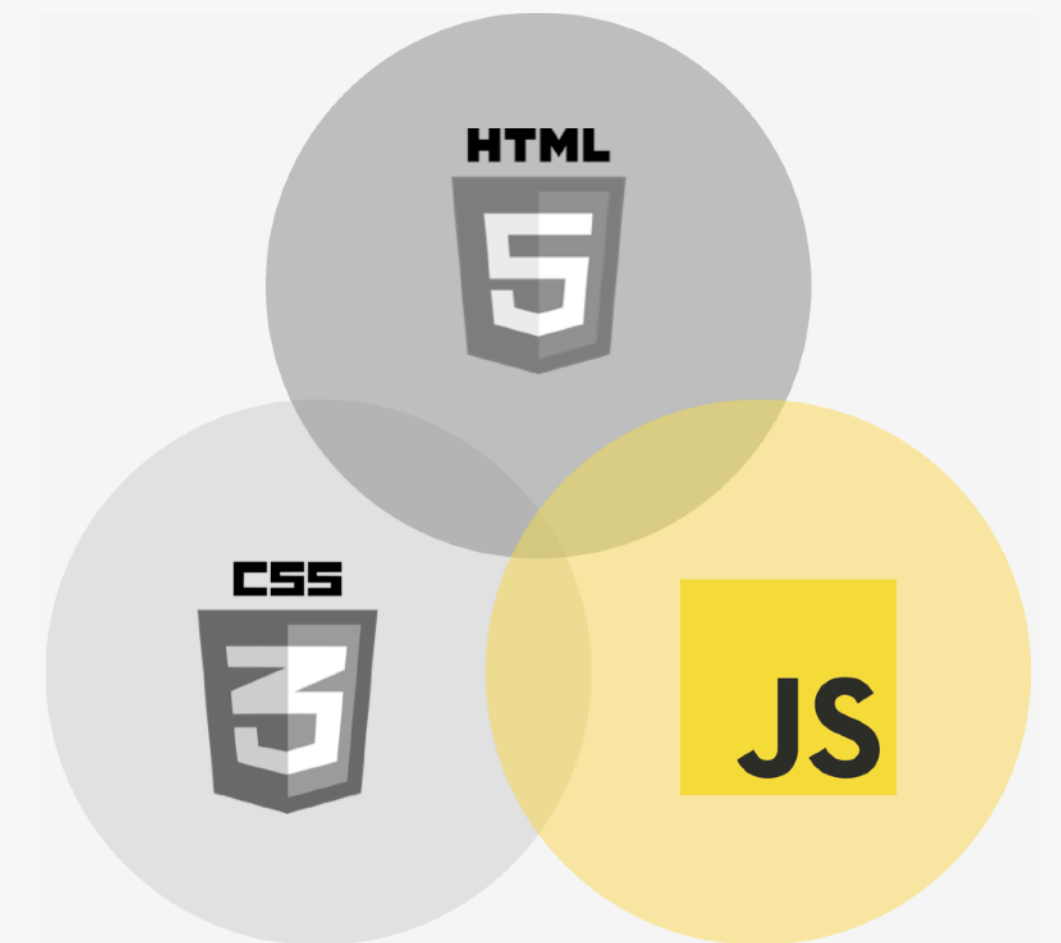
WHAT IS JAVASCRIPT?



# WHAT IS JAVASCRIPT?

## JAVASCRIPT

- 👉 JavaScript is the **programming language** that browsers understand
- 👉 Web developers use JavaScript to implement **dynamic effects**: respond to click events, load external data, change the HTML page content, play video, animate charts, etc.
- 👉 JavaScript makes **webpages come to life**: we can transform a normal webpage into a **fully-fledged web application** that feels just like a mobile application 🤖







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## SECTION

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## LECTURE

WHAT IS THE DOM?

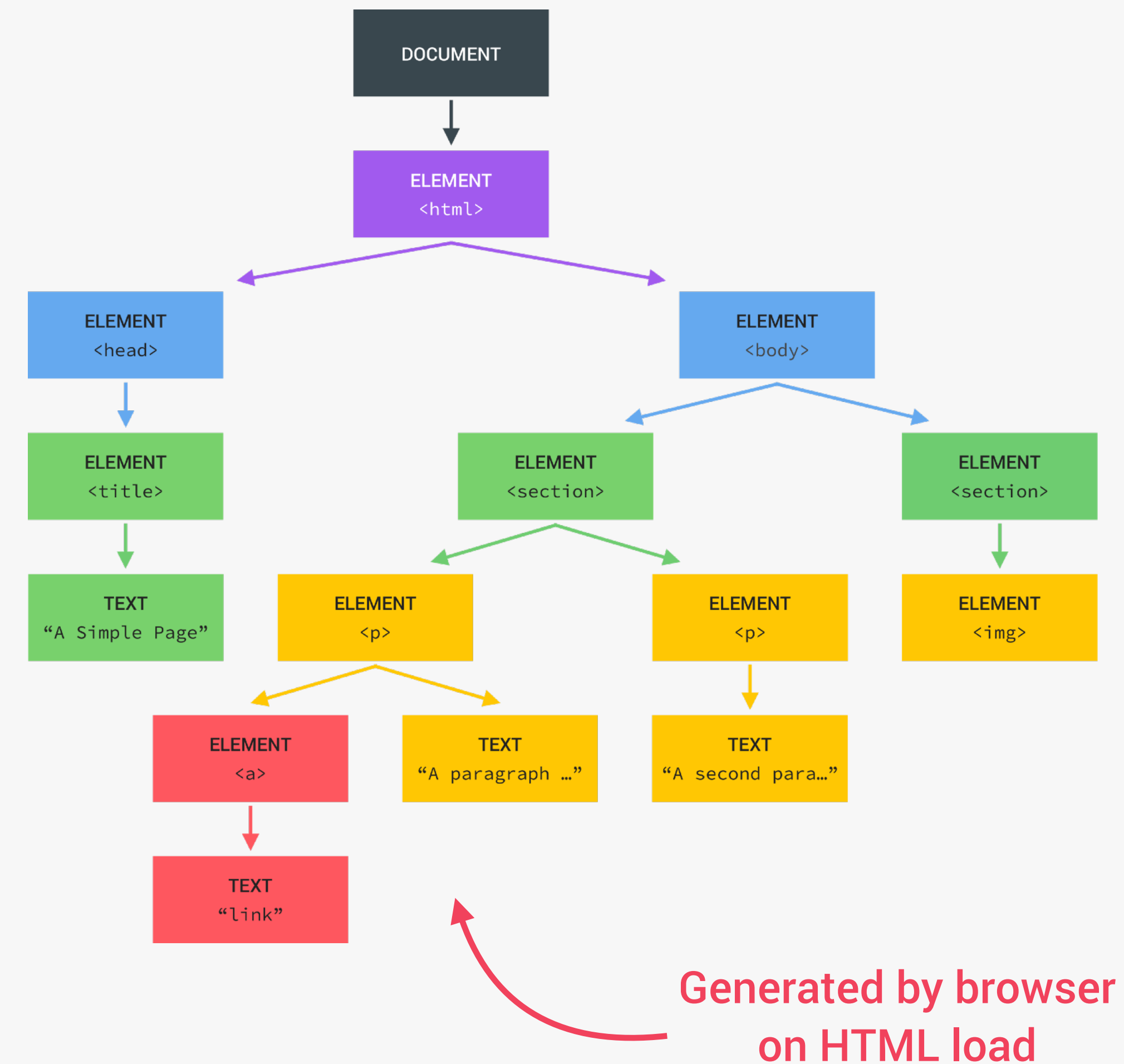


# WHAT IS THE DOM?

## DOM

- 👉 **Document Object Model**
- 👉 **Tree-like** representation of the HTML document
- 👉 Each HTML element is represented as a **JavaScript object**, which allows JavaScript to access HTML elements
- 👉 DOM objects contain methods and properties to **manipulate** them: change text and HTML attributes, insert new HTML elements, etc.

DOM manipulation







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# REACT – BUILDING THE FINAL APP



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## SECTION

REACT – BUILDING THE FINAL APP

## LECTURE

WHAT IS REACT?



# WHAT IS REACT?

Code written and shared by other developers. Makes development easier and faster

REACT

Webpage that's currently on the screen (current HTML)

👉 “JavaScript library for *building user interfaces (UI)*”

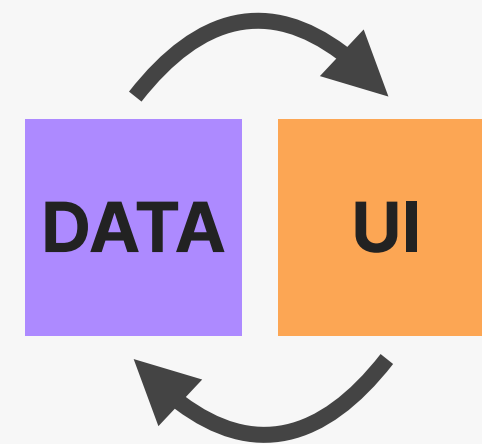
- 1 Component-based:** A component is a JavaScript function that contains a **piece of the UI** (both its content and functionality). We build complex UIs by combining multiple components
- 2 Declarative:** We only describe what the UI should look like, using a syntax called JSX. Developers **never manipulate the DOM directly!**
- 3 Driven by state:** State is the data that the UI is based on. When we change the state in a component, React automatically updates the DOM. This always **keeps the UI synchronized with the data**



# WHY DO WE NEED A FRONT-END LIBRARY?

1

Keeping a **user interface synchronized with data** is *really hard* and a *lot of work* in big applications. Front-end libraries **solve this problem** and take hard work away from developers 🎉



2

Libraries enforce a “**right**” way of structuring and writing application code (less bugs 🐛)



Most used in the web industry

👉 Trying to keep **data** (showForm?) synchronized with **UI** (form visibility + button text)

```
const btn = document.querySelector('.btn-open');
const form = document.querySelector('.fact-form');

btn.addEventListener('click', function () {
  if (form.classList.contains('hidden')) {
    form.classList.remove('hidden');
    btn.textContent = 'Close';
  } else {
    form.classList.add('hidden');
    btn.textContent = 'Share a fact';
  }
});
```

JS

Code we wrote in the previous section





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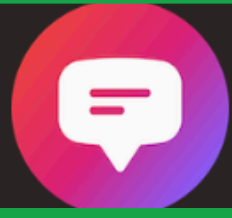
## SECTION

REACT – BUILDING THE FINAL APP

## LECTURE

DIVIDING OUR INTERFACE INTO  
COMPONENTS





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App





**THE END!**





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**SECTION**

THE END!

**LECTURE**

WHERE TO GO FROM HERE



# WHERE TO GO FROM HERE?



Well done!



It's 100% normal that you didn't understand many of the things we did



Try to build a similar small project!



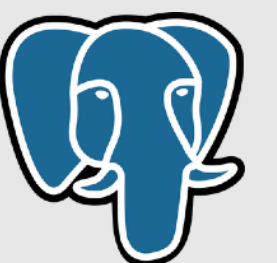
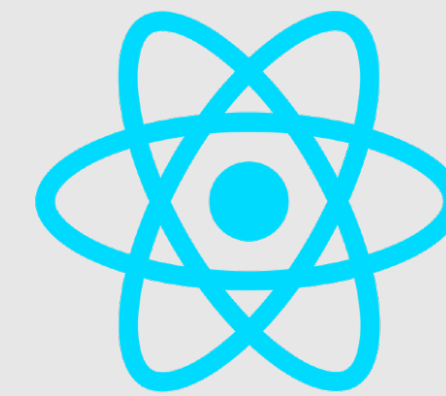
Web development and programming and complex and take a lot of time to learn



But it's a very rewarding career option!



Did you like to write code?







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