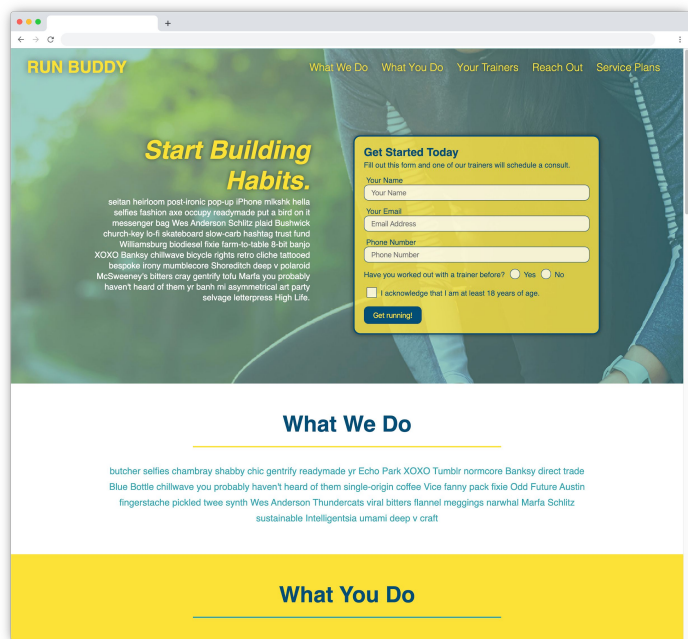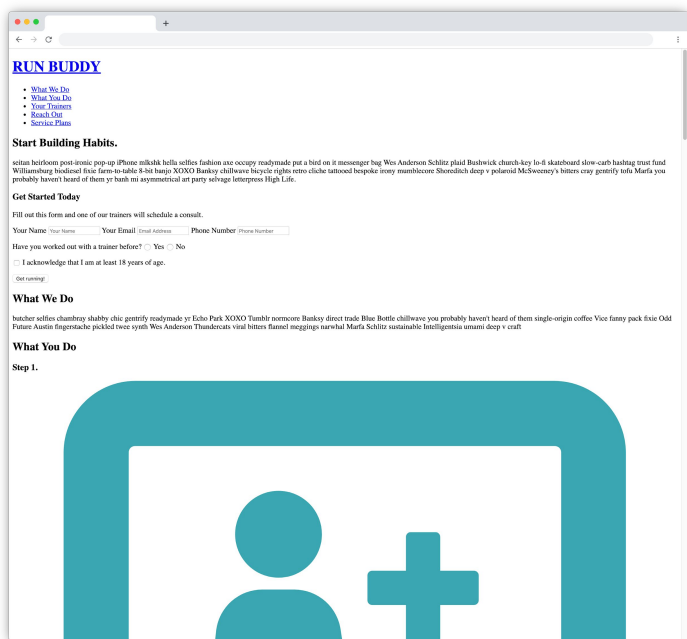**Software Development**

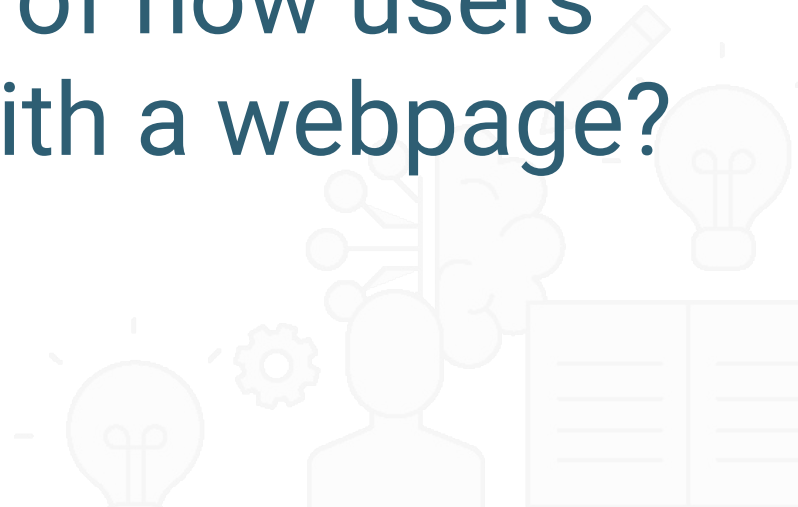# JavaScript

Module 03

What do we use
HTML and CSS for?

HTML & CSS: Languages of the Web

We use HTML to create and organize content on a page and CSS to apply styles, layout, and even animation to that content.
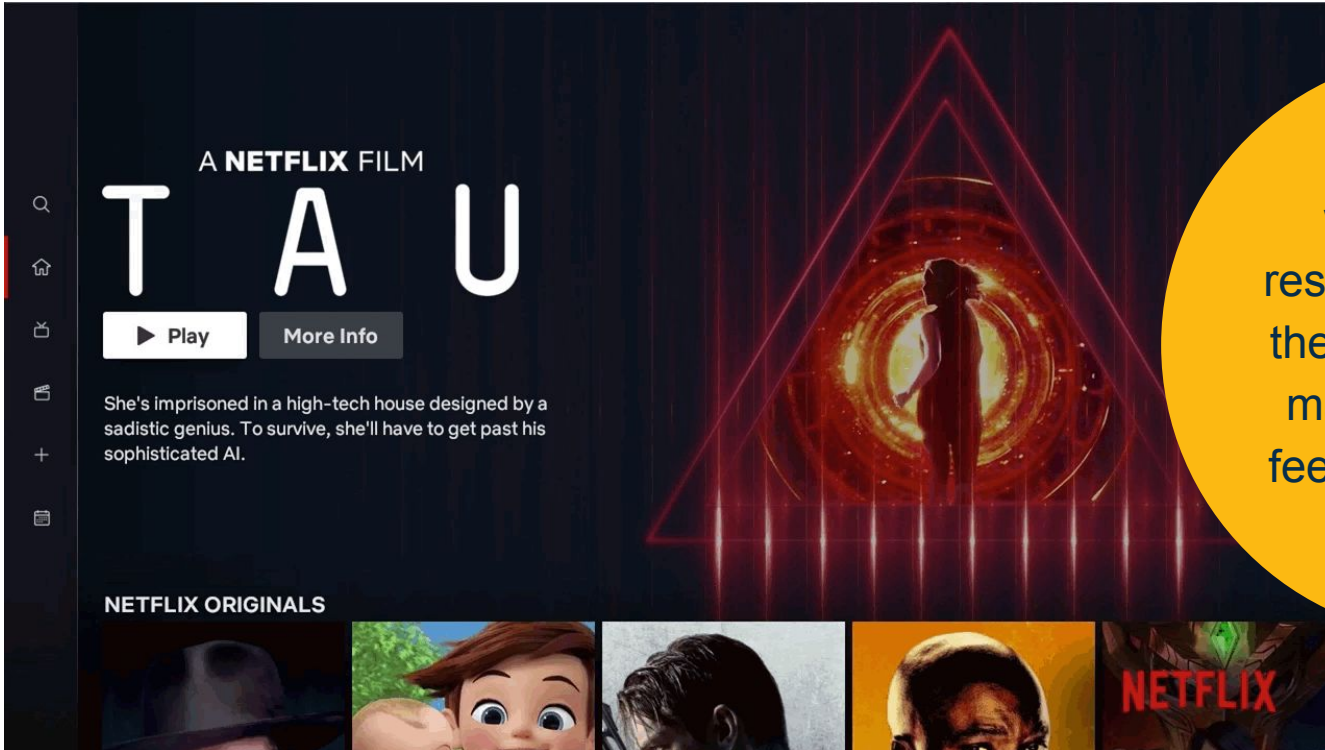
What are some examples of how users interact with a webpage?

Interaction on Webpages

We interact with webpages in many ways on a daily basis.

Typically the webpage will respond or react to these interactions, making the page feel more dynamic and alive.

Interaction Examples

Interaction Examples

Submitting an HTML form to comment on an article.
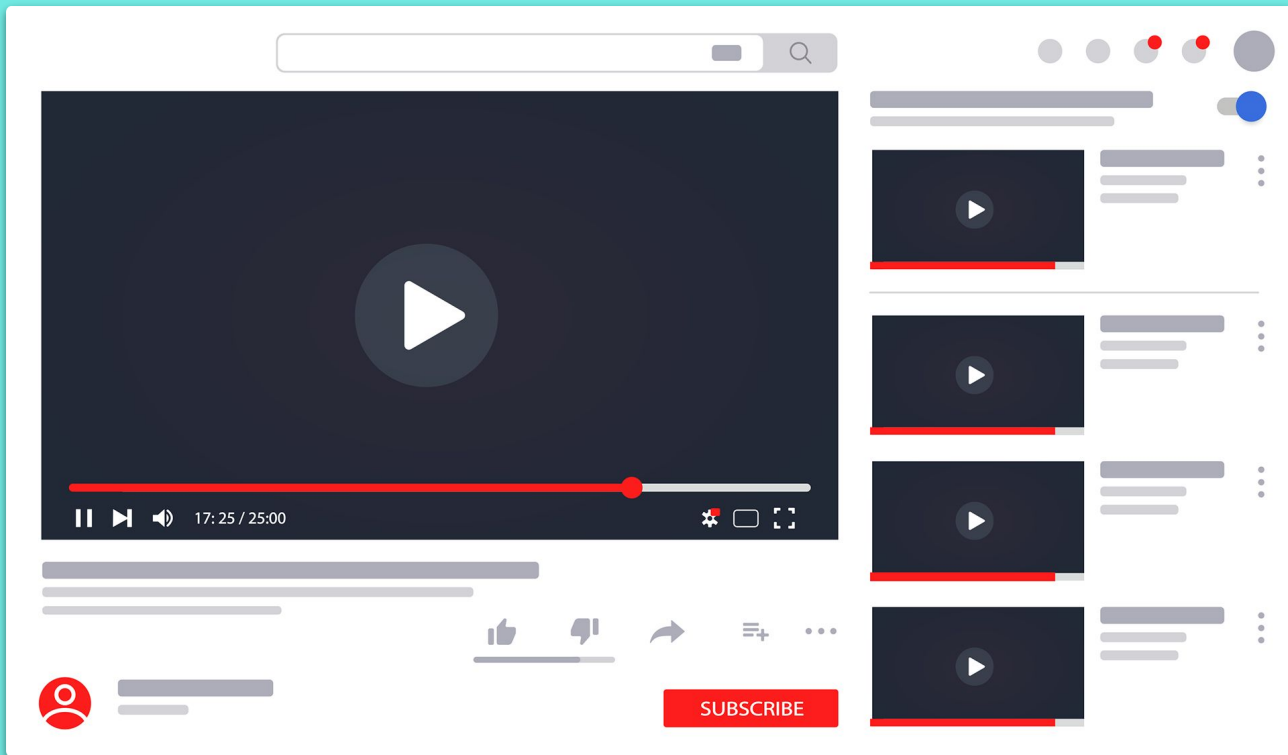
Contact us

Email

Subject name

Message
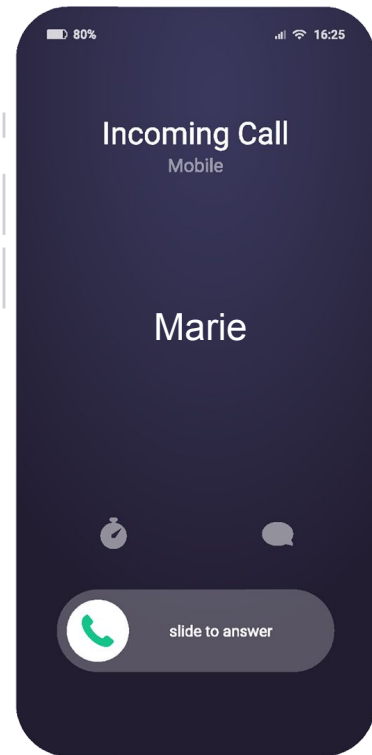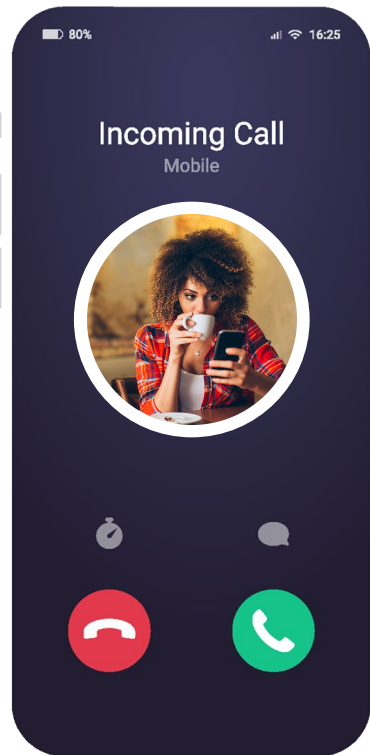
Send

Interaction Examples

Playing audio or video at the press of a button on the page.

Interaction Examples

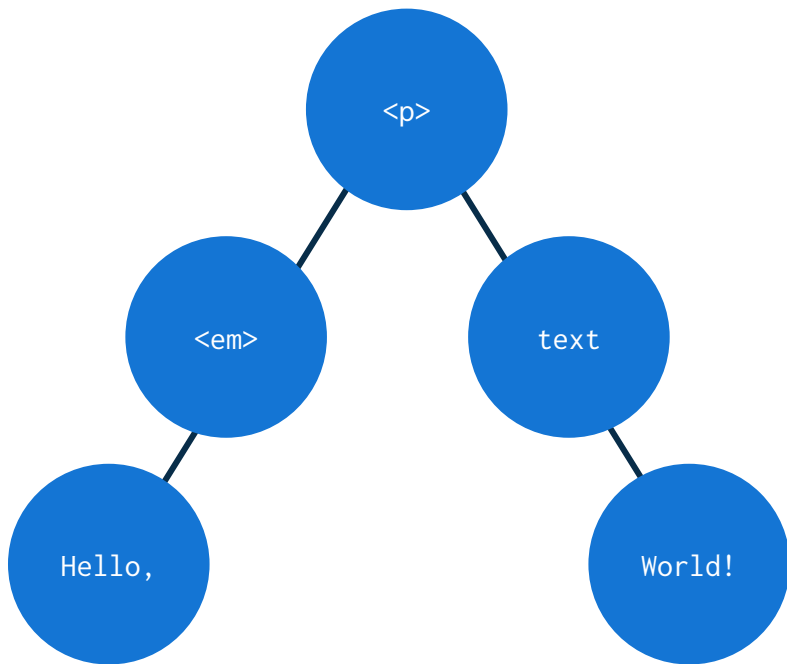Using the device's camera or microphone to enable a conversation.

Can we achieve these types of interactions using only **HTML** and **CSS**?

HTML & CSS ≠ Functional

While HTML and CSS offer some great built-in features that give users a sense of interaction or functionality on a site, they cannot handle the complex tasks that occur in response to these interactions.
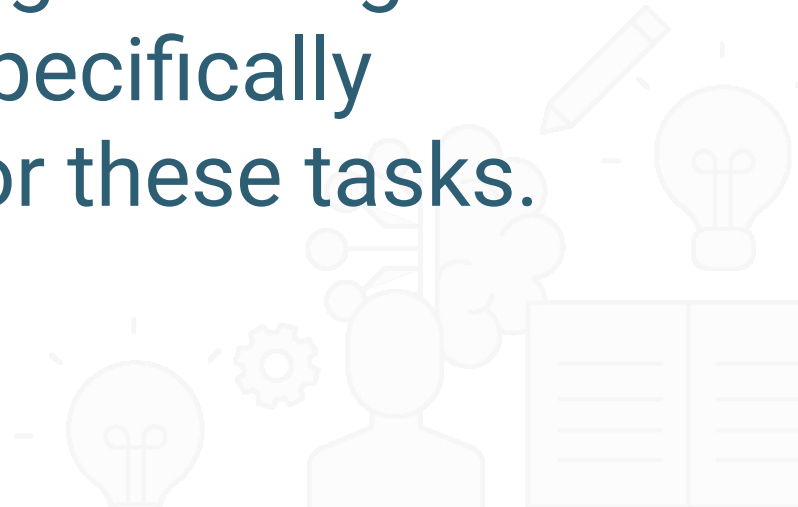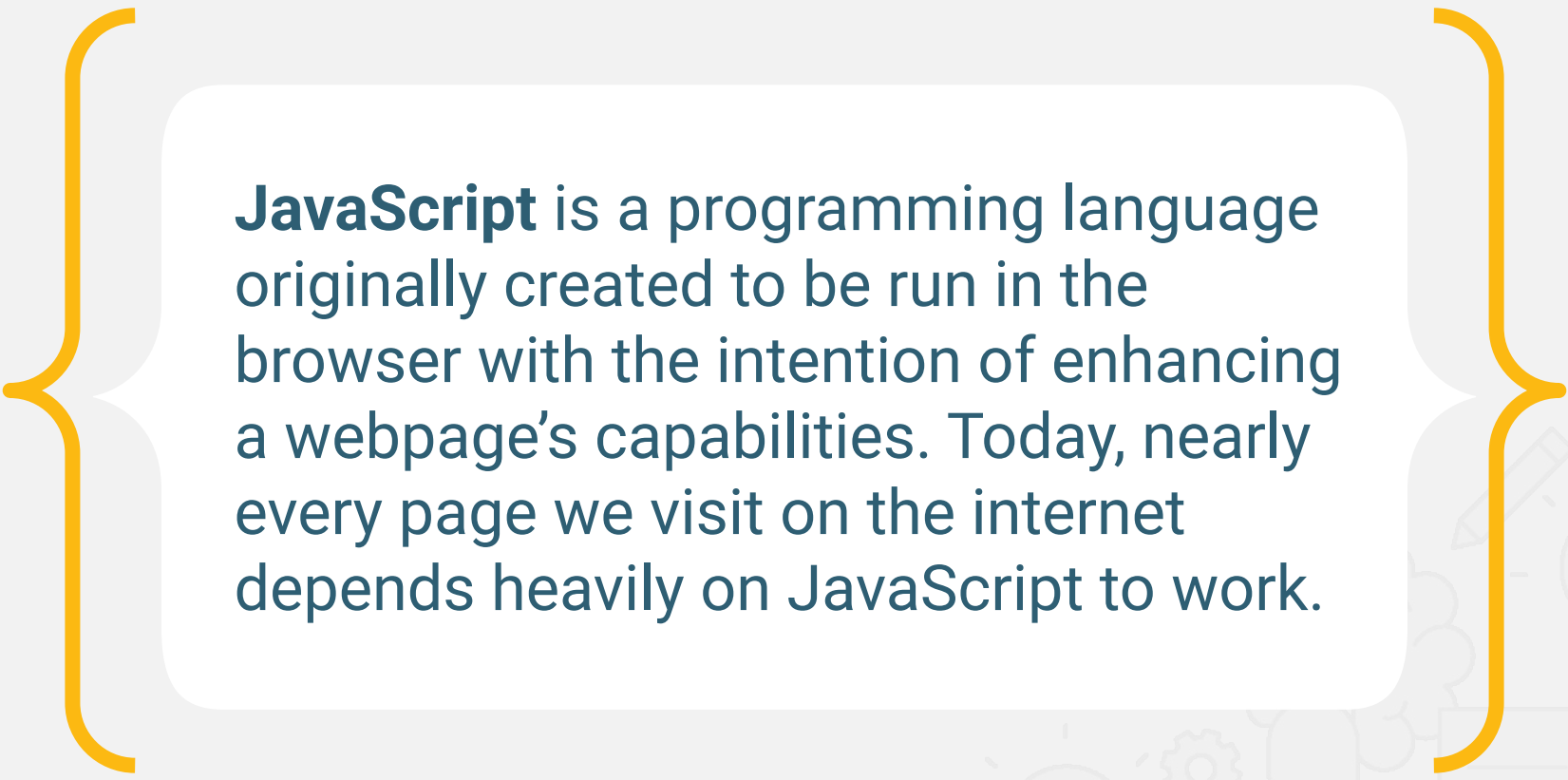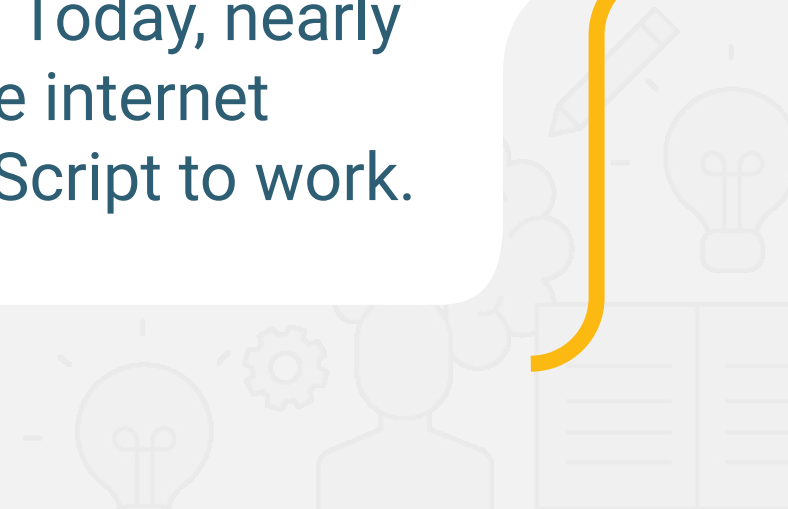
HTML (Structure)

CSS (Presentation)

For that reason, web developers utilize another programming language specifically designed for these tasks.
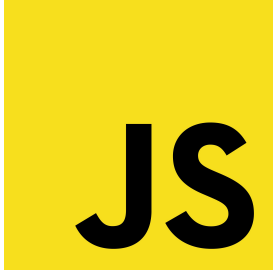
JavaScript is a programming language originally created to be run in the browser with the intention of enhancing a webpage's capabilities. Today, nearly every page we visit on the internet depends heavily on JavaScript to work.
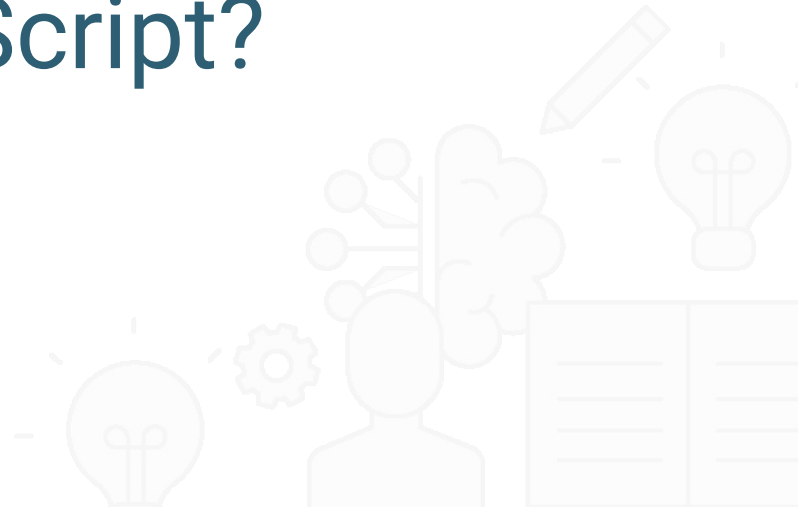
JavaScript

While HTML and CSS handle content and design, JavaScript handles the overall functionality of the application to make it feel more alive and dynamic.

HTML	CSS	JavaScript
Used to write content.	Used to format content.	Used to create dynamic web applications that take in user inputs, change what's displayed to users, animate elements, and much more.

In what ways do we use JavaScript?

Front-end developers use JavaScript primarily to dynamically affect a webpage to enhance the user's experience.

No other programming language can run in the browser, so JavaScript is a must-have skill for web developers.
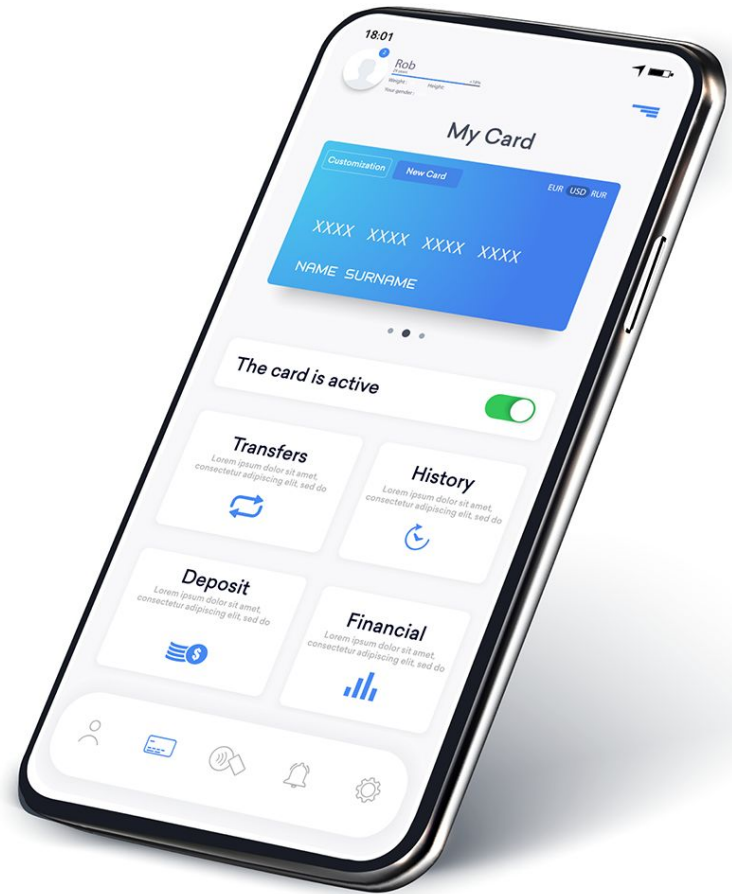
JavaScript Examples

JavaScript Examples

Showing a user personal data only after they log into the application.

JavaScript Examples

Fetching weather data to display and update on the page.

JavaScript Examples

Informing users that they are missing information on a form.

Choose your username

@gmail.com

I prefer to use my current email address

Create password

● ● ● |

Password strength: Too Short

Use at least 8 characters. Don't use a password from another site, or something too obvious like your pet's name. **Why?**
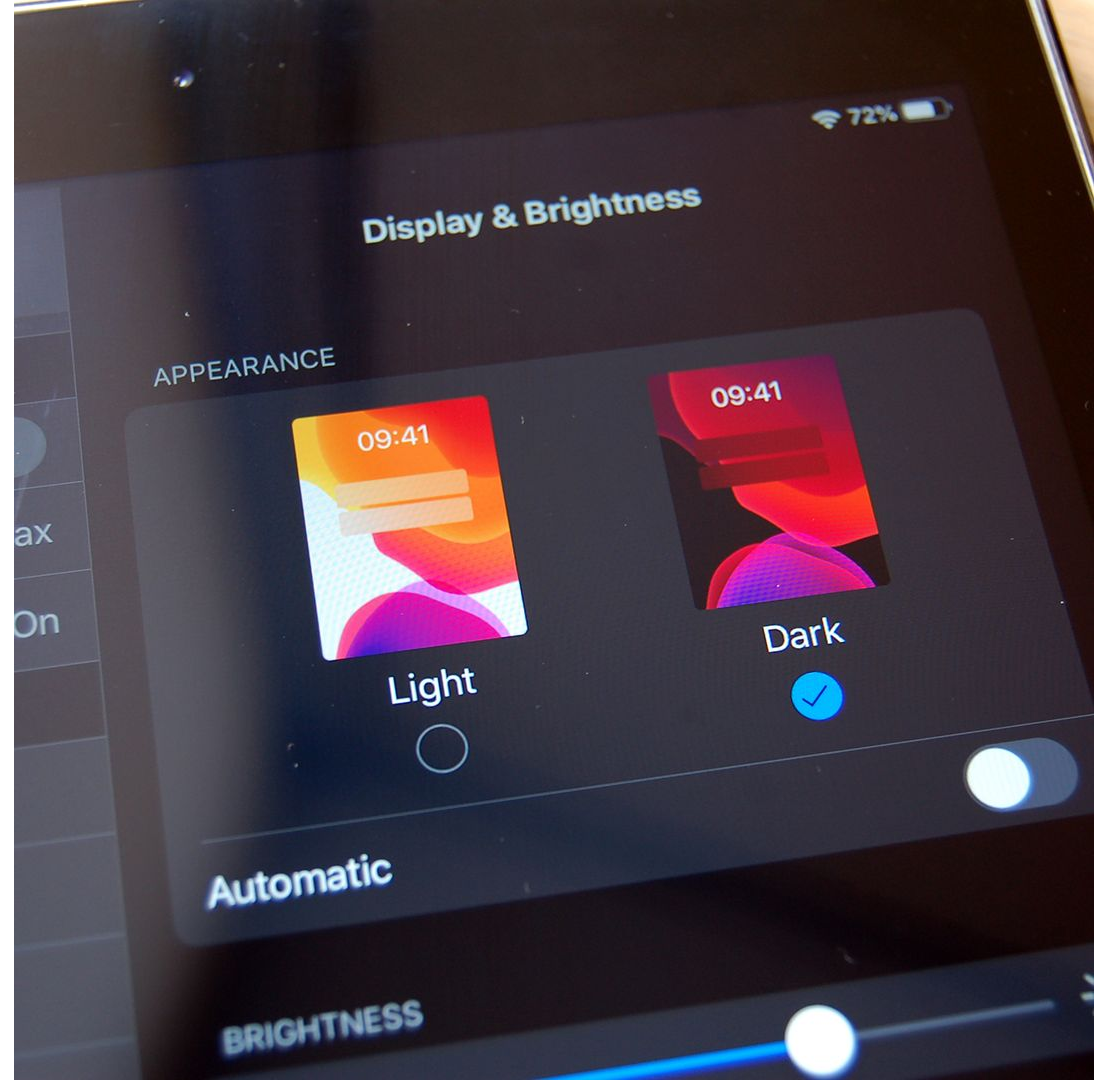
Confirm your password

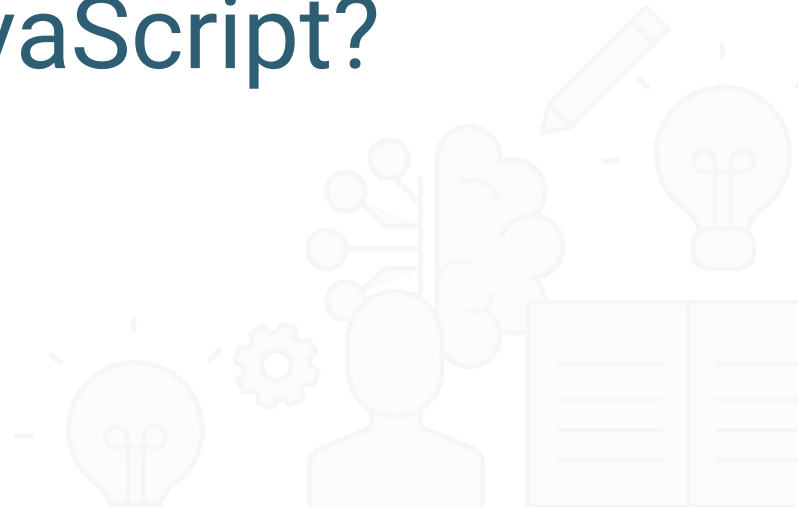Birthday

Month   Day   Year

JavaScript Examples

Remembering a user's preference between light and dark mode themes.

How can we learn to use JavaScript?

JavaScript

Unlike some other programming languages, JavaScript doesn't force developers to write code in a specific way. As a result, JavaScript might seem a bit complicated at first, but it can make development work feel incredibly fun and creative as you get to use it more and more.
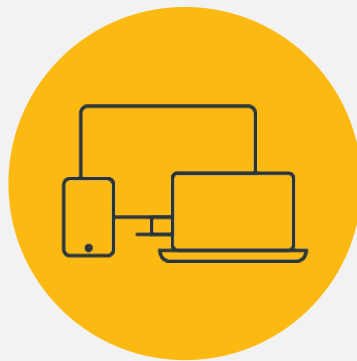
let keyword	Variable name	Assignment	Value	Termination
let	character	=	"Snow White"	;

How to Learn JavaScript

Try some of the following techniques to learn JavaScript:

1. Read the docs and practice with the provided examples.

2. Reverse-engineer finished code to see how it was created.

3. Build something from scratch.

4. Debug a broken app using Chrome DevTools.

5. And most importantly, ask questions.

Instructor **Demonstration**

Mini-Project

Questions?

The End