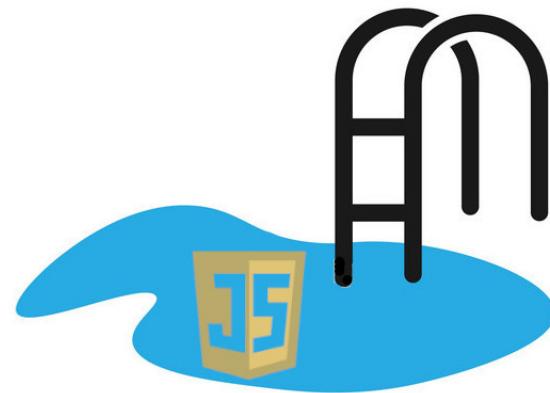


D1 - Bootcamp

JS Bootcamp - day 08

Libraries





JS bootcamp - day 08

delivery method: Github

language: Javascript



- The totality of your source files, except all useless files (binary, temp files, obj files,...), must be included in your delivery.



The progression of the exercises is less straight-forward than usual. You may skip an exercise, but still work on the following ones.

Libraries, like *jQuery*, *Vue*, *Pixi*, *Anime* are language overlays that encapsulate code chunks. They:

- guarantee fast, robust and correct executions ;
- ease many of your operations (tests, debug, specific tasks, ...) ;
- encourage the sharing of the code with peers ;
- improve the code readability and maintainability ;
- generally guarantee browsers and devices compatibility.

They are collections of related pieces of code, frequently used by computer programs.

A program invoking a library gains its behaviors without having to implement them. Useful, isn't it?



just like tools, libraries are extensively used by pros...



Most compiled languages include a standard library.

Although programmers can also create their own custom libraries.

EXERCISE 01

Files to turn in: ex_01/ex_01.js
ex_01/index.html
ex_01/any css files you fancy

You are in charge of a project for the maintenance of an online poney shop.
The company just contacted you to add as soon as possible a carousel presenting the cutest animals.

Using the library [Splide](#), integrate a carousel with the id `latest-creations-carousel` and respecting the following requirements:

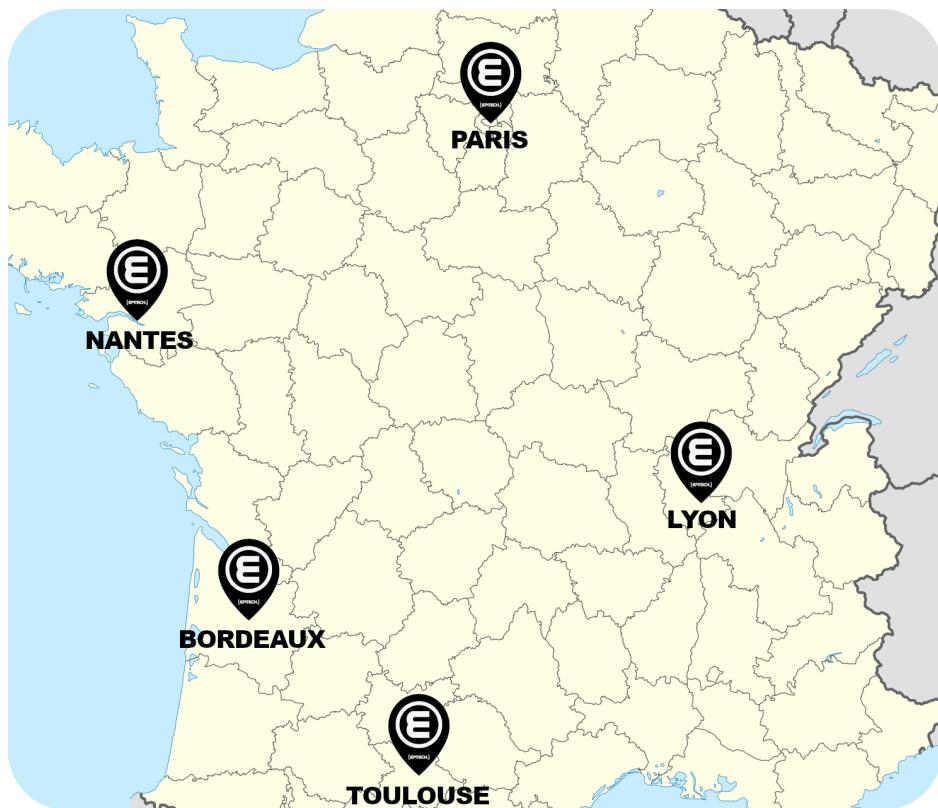
- 3 images are displayed at a time ;
- the images must change every 5 seconds ;
- the center image must be brought to the foreground.



EXERCISE 02

Files to turn in: ex_02/ex_02.js
ex_02/index.html
any css files you fancy

Using the library [Leaflet](#), draw a map of all Epitech Digital schools.
The map must include [Epitech logo markers](#); when clicked, it displays a popup containing the name of the city of the school and " rocks!" (for instance, "Bordeaux rocks!").



EXERCISE 02BIS

Files to turn in: ex_02bis/ex_02bis.js
ex_02bis/index.html
any css files you fancy

Modify your previous map so that the cities in which Epitech is implanted (and only those cities) are displayed whichever the zoom level.

EXERCISE 03

Files to turn in: ex_03/ex_03.js
ex_03/index.html
any css files you fancy

Create an HTML/CSS page containing the 5 elements: *images, squares, sound, button, video*.
Using the library [Tippy](#), create a “tutorial mode”: when one click on an element, a tooltip appears with a nice animation and some text. If one clicks outside the tooltip, it shuts down.



EXERCISE 03BIS

Files to turn in: ex_03bis/ex_03bis.js
ex_03bis/index.html
any css files you fancy

Modify your previous code so that the first tooltip pops up when the page is loaded.

jQuery is a fast, small, and feature-rich JavaScript library developed by Google. It is extremely used, since it makes things like HTML document traversal and manipulation, event handling, animation,... much simpler with an easy-to-use API that works across a multitude of browsers.



With the rise of frameworks like Angular, Vue.js or React, the jQuery library has seen a significant decline in popularity. That said, it is still used in countless projects and has some advantages.

EXERCISE 04

Files to turn in: ex_04/ex_04.js
ex_04/index.html
any css files you fancy

Function prototype: `houdini()`

Using jQuery, write a `houdini` function that selects all paragraphs on the page and makes them disappear.



EXERCISE 04BIS

Files to turn in: ex_04bis/ex_04bis.js
ex_04bis/index.html
any css files you fancy

Function prototype: `houdini(name: string)`

Using jQuery, write a `houdini` function that takes a `name` string as argument and makes all elements where `id=name` or `class=name` disappear.





Vue.js is a progressive framework for building user interfaces.

Unlike other monolithic frameworks, Vue is designed from the ground up to be incrementally adoptable. The core library is focused on the view layer only, and is easy to pick up and integrate with other libraries or existing projects.

It is based on a Model/View/Controller design pattern :

- the **model** is a JavaScript object containing variables and their initial values. Model is about data ;
- the **view** is an HTML template. It describes the way things are displayed and defines event listeners ;
- the **viewModel** binds the model and view together. It allows them to stay synchronized. Changing the model will instantly update the view, and vice versa.



The easiest way to try out vue.js is using the [Hello World example](#).



Take some time to discover the framework. We encourage you to [read or watch](#) content about what is Vue.js.

EXERCISE 05

Files to turn in: ex_05/ex_05.js
ex_05/index.html
any css files you fancy

Using the `message` property, display the current time like this: The current time is 23:42. Don't worry if the time is not dynamically updating.



EXERCISE 06

Files to turn in: ex_06/ex_06.js
ex_06/index.html
any css files you fancy

Use the values from instance data and follow these steps:

- Replace *BLANK1* with the name of the pet
- Replace *BLANK2* with *number1* multiplied by *number2*
- Replace *BLANK3* with the half of *number1*, by using one specific method from instance data
- Write a method `pow3`, then use it to display *number2* raised to the power of 3, instead of *BLANK4*
- Replace *BLANK5* with a capitalized *sentence1* using a specific filter
- Write a `reverse` filter, then use it to replace *BLANK6* with a reversed *sentence2*
- Use some filter(s) to capitalize and reverse *sentence3*, then ... yeah, you know what to do!



You are allowed and strongly advised to change the HTML page for this exercise

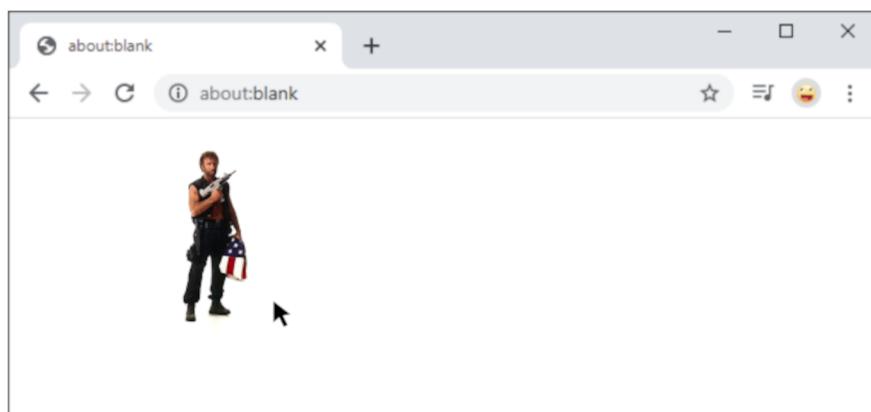


EXERCISE 07

Files to turn in: ex_07/ex_07.js
ex_07/index.html
any css files you fancy

Make an unclickable Chuck Norris image.

Place your favorite Chuck Norris picture in the middle of a white HTML page.
Using Vue.js, have the image teleported away from the cursor, so that the image cannot be clicked upon.





BONUS 01

Files to turn in: bonus_01/bonus_01.js

bonus/index.html
any css files you fancy

Upgrade your code from ex03bis in order to create a “guided tour”: when the page loads, a tooltip for the first element appears, with a nice animation. Then, when one clicks inside a tooltip, the tooltip of the next element appears, with a nice animation.



The first element is considered as the successor of the 5th element.



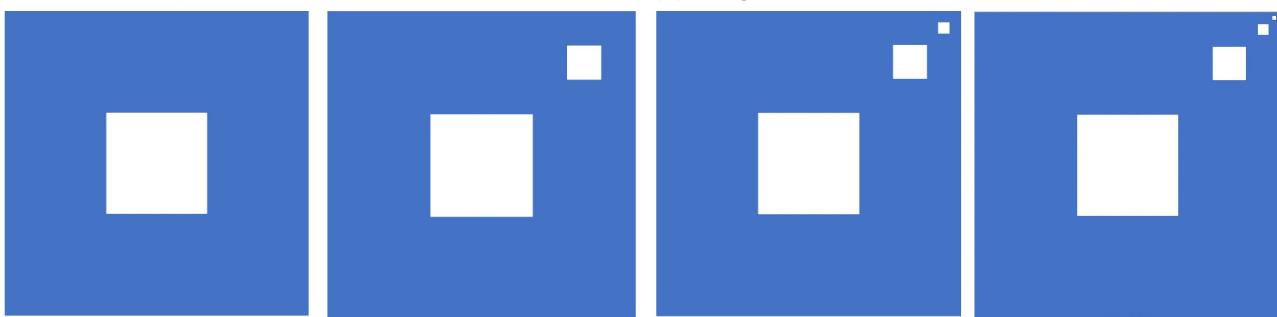
All the animations and all the tooltips must be different.

BONUS 02

Files to turn in: bonus_02/bonus_02.js
bonus/index.html
any css files you fancy

Using JQuery, build a Serpinsky carpet.
The initial shape is a 3x3 blue square with a white square in the middle.
Then, each time a blue square is clicked, it turns into a 3x3 blue square with a white square in the middle.
And the process goes on and on.

Here is the sequence when one clicks 3 times on the upper right corner:



And here are 2 examples of savage and extra savage clicking:

