Laboratory 10 – JavaScript

In this laboratory we want to create a webpage with the following functionality:

- The webpage dynamically loads JSON data from the following online API:
  https://jsonplaceholder.typicode.com/albums
  (Consult https://jsonplaceholder.typicode.com and their documentation to see what other APIs are available and how to use them)
- When the webpage is loaded, 10 pieces of data are loaded initially
- The webpage has a "Load more data…" button, which whenever clicked, loads another 5 pieces of new data in the table
- After the button has been clicked, it will be deactivated for 5 seconds:
  - The button will turn gray
  - It will display: "Timeout x s", where x will count down from 5 seconds to 0 seconds
  - The button will not accept a new click event while it's deactivated
  - After the passing of 5 seconds the button will reactivate: turn green again and start accepting click events

Load more data...

Loaded data

UserID	ID	Title
1	7	quibusdam autem aliquid et et quia
1	2	sunt qui excepturi placeat culpa
1	1	quidem molestiae enim
1	8	qui fuga est a eum
1	10	distinctio laborum qui
1	5	eaque aut omnis a
1	3	omnis laborum odio
1	9	saepe unde necessitatibus rem
1	4	non esse culpa molestiae omnis sed optio
1	6	natus impedit quibusdam illo est

Figure 1. Page rendering with load data button enabled

Timeout: 4s

Loaded data

UserID	ID	Title
1	7	quibusdam autem aliquid et et quia
1	2	sunt qui excepturi placeat culpa
1	1	quidem molestiae enim
1	8	qui fuga est a eum
1	10	distinctio laborum qui
1	5	eaque aut omnis a
1	3	omnis laborum odio
1	9	saepe unde necessitatibus rem
1	4	non esse culpa molestiae omnis sed optio
1	6	natus impedit quibusdam illo est

Figure 2. Page rendering with load data button disabled during timeout

Task 01

Take the "`index.html`" and "`style.css`" files from OneDrive and analyze their content. Note that you will need to load the data in the table defined in the HTML document.

Study the stylesheet and look at what styles are used and how they are set up and why.

Task 02

First, we will import data on page load. Write a function that imports one piece of data and places it in the table. Then, on page load, call the function 10 times, in order to populate the table with 10 pieces of data.

Task 03

Now, we need to import data when the button is clicked. In order to do this, you need to add an event listener to the button. When the even listener is fired off, you can call the function you've written in Task 02 five times, in order to import another five pieces of data. Note that you will probably have to keep track of how many pieces of data you've imported so far in total (you'll need a counter for all data imported), so as not to import the same data again.

Task 04

Lastly, we need to disable the button for 5 seconds, after it was clicked. In order to do this:

- You need to remove the click event from the button after it was clicked
- Set the button styling to a gray background
- Implement a function that counts down 5 seconds (or a function that counts each second, called 5 times)
- Display the time left on the button after each passed second
- After the 5 seconds have passed you need to re-enable the button: re-add the click event and set the background color back to green

Upload your work to OneDrive and delete your local files from the PC!