Individual Work - Web Applications and Technologies

Professor Amério Rio

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The project proposal I chose was the **12th**.

Instead of making the Dashboard for only 10 countries I took advantage of all the countries on the list of the API the professor suggested.

“12. COVID19 Countries - using a web service and JavaScript, or PHP, make a dashboard with a table with the evolution form the last 2 months in 10 countries that you choose.

Display data in numerical form or chart. Try to use medians of last 3 days for the chart - it's smoother.”

What I used and Why:

- The API professor suggested that had a lot of countries, because I wanted to make a dashboard for a lot of countries;
- getJSON to get the information from the API as a suggestion from the professor since fetch does not work well in all browsers;
- chart.js to make a line chart, because I found a very good web page that had great explanations about this tool;
- I Decided to make a line chart because it is the one that supports better the amount of information of the API.

How I did it:

1. I chose the API that has many countries from the 2 suggested by the professor;
2. I created a function that gets the countries from the API with getJSON. That function stores the countries names in an array;
3. I created a function that, when called, gets the information about the confirmed cases, deaths and recovered of a certain country for all dates since the first case in that country. The function stores that information directly in 1 array for each characteristic. Also, it gets the latest information from each array to a destined p in a div in the html file. This information is updated every hour, even though the website only updates its information in 8h
4. I programmed the chart to be created with the information of the arrays making 3 lines in one graph, one for each characteristic. The x Axis is the dates and the y Axis is the number of cases. For the x Axis I followed a suggestion of the professor and the dates appear from 3 to 3 days. However, the information on the graph is daily, so the user can see every day’s information.
5. I created a side bar with all the countries names. This side bar can be accessed through the “Country List” in the page and can be closed on a cross at the top of it. This sidebar has a search option where a user can write the name of a country or part of it. This search is not case sensitive.
6. Whenever a user presses a country, the current displayed graph and information are destroyed and a new graph with that selected country’s information is created as well as the information of the div. This is done by calling the method that gets the data of that country from the API. The Labels of the graph are also updated to the new country’s labels.
7. I made this system responsive to smaller screens. The number of pixels it needs to get were decides by seeing the time it would be hard to see all the information.
8. The first country displayed in the page is Portugal since I added in the beginning a call of the method that gets the information about a country, for Portugal.
9. I also added a header with a background image and a Logo, an Icon for the page and a footer that only goes half way of the page width so it does not go over the graph and fills the empty space on the left part of the page