Declaration Project Work 2025

This is my final project for the course "Introduction to Web Programming" of the three options available I have chosen the third one "Project 3: Money and crypto portal" that consist in making a web page that shows you the statistics of official currencies and cryptocurrencies that you are able to obtain from some APIs that you are able to obtain from a GitHub page with name Public API Lists that consist of groups of lists of public APIs of different topics, the URL that is used is the one that appear in the document about the project work being that URL: https://github.com/public-api-lists/public-api-lists.

For this project I have used the AI of ChatGPT to help me with some problems I had while coding and to understand well what I have been asked to do and how I was expected to do it but most of the part of the project and the declaration have been thinked and done by myself.

In this project I have created a web page called "Money & Crypto Portal" in which you can find two charts with data the first one is about the value of some cryptocurrencies through the year before the day you are using the website, those cryptos are: Bitcoin (BTC), Ethereum (ETH), Dogecoin (DOGE), Litecoin (LTC) and Tether Gold (XAUT) this last one used like a cryptocurrency to represent the value of gold, works by dragging the currency up to the table/chart in mobile phone also work by dragging but it's a little more difficult and the dragging don't perform so well but it works.

For this table you can change the color you put for each crypto you insert, also change the time range of how the cryptos have been doing from 1 day ago up to 1 year, touch a point in the chart to see the exact value, add separate charts to compare more easily between them and then after that share that table or downloading it like a PDF sometimes because of fetching or trying to fetch a lot of things like for example inserting all the cryptos and changing a lot and very fast the time ranges it would create a Status 429 in the APIs don't showing the cryptos in the chart or continue showing the one you had before, making you have to wait until you can again put new cryptos or change the time ranges.

Also, just below that group of options you have a functionality that allows you to insert the amount and when you insert one of the cryptocurrencies like if it were your portfolio to allow you to see how well/bad you have done or would have done if you but X amount of one of the cryptos at an specific day of the year we are visualizing and showing how much money in dollars was, how much is in this moment and a recommendation of what you should do, buying more, selling more or holding depending on the case, the crypto of Tether Gold (XAUT) does not work in this functionality because of not being a crypto and representing the value of Gold and using a different API.

The second chart shows the exchange of USD to various different currencies (that are the Euro, the Yen, the Pound and the Swiss franc) through the time like the chart before but in this case showing from 1 month up to the Max that is 10 years(there was no APIs that gives you the values for the currencies up to 20 years) as well as the last one it allows you to touch one of the points in the chart in this case from the perspective of the USD or the other currency to see all the data in that specific moment, also you can downloaded the chart as a PDF or also in this case as a CSV to see the data and use it in a Excel spreadsheet if you need to make calculations about the value of the money and how much you may have won.

For Bitcoin and the other cryptocurrencies, the APIs were not able to give me the data correctly for more than a year, so it was not possible to get that data from up to 10 years or 20.

The Features that this Web Page contains are: **Drag'n'drop new data to chart(s) (there are different data items on screen that user can drag and drop as she wishes) - 4** – You are able to drag up to 5 different cryptos and drop them to the chart to show the data about the state of that cryptos in the last year working even in mobile devices.

User has an option to select the time period that she wants to see - 2 – You can change the period of time you are looking for the development of the cryptos or the exchange currencies in both of the charts.

User has an option to select colors for different currencies - 2 – You are able to select from the chromatic table the color you want to use for the crypto to be represented in the chart.

User can add new chart next to each other (with mobile they are probably on top of each other) - 2 – The web page starts with two charts one empty for you to put the cryptos and another one with the exchanges, but for the cryptos you can create more charts to compare the progress of the different cryptos.

By clicking data, user can get additional information - 2 – You can click in both of the charts some points of the time periods and will show you a more extensive information, for example putting more numbers after the comma to be more precise.

There are more than one item of data available – this means that there are two API calls made (completely different data sources like z.com and y.com, not just different API endpoints on same service) - 3 – For the data in the crypto charts are used two different APIs being the first one frankfurter for the first 4 crypto and CoinGecko for Tether Gold (XAUT).

Data is combined and merged to generate new data, which is then visualized - 3 – In the chart that shows the cryptos you are able to see the difference on how much have gone up or down different cryptos in the same time period by putting them in the same chart and on the exchange of currencies depend of what currencies are you using those are being merged to get the data of how much has varied the value between them.

User can input her own crypto buyings (date and amount) and the system can tell the value of the crypto in current date and then recommend selling or buying more - 5 – In the web page below the options and the cryptos you can find a functionality called "My Purchases" in which you can get the current value of the crypto and a recommendation of what you should do(to sell, buy more or hold).

Able to download the visualization as a PNG (or SVG) image - 2 – You can download a PNG image of both of the two charts (or CSV but only for the exchange chart) consisting on cryptos and exchange of currencies that later you can see by yourself in the computer without the web open (the color of the background is a little difficult to comprehend but it works).

Able to share the data as image to social media service - 2 – You are able to share directly from the website the image you created from your crypto chart with the share button if you want to give it directly to someone else.

Well written PDF report - 3 – This is my code and in my consideration is well written and structured.

Application is responsive and can be used on both desktop and mobile environment - 4 – The website is completely responsive and can be opened and work with it in mobile devices being able to do the same thing as you can do with the PC version of the web.

Application works on Firefox, Safari, Edge and Chrome - 3 – The application works the same way and without errors in Firefox, Chrome and Edge, I don't have an apple dispositive so I cannot check if it also works on Safari but working on the other 3 I suppose it does work.

The application has clear directory structure and everything is organized well - 2 – The structure on the web page is clear and it is easy to understand how it works, it has a blue header with the name of the page an explication and my name, and a footer with the information of the APIs used.

Extras

More currencies added - 2 – As an extra I added more currencies to be able to see the value exchange apart of the exchange of USD to EUR and vice versa, being those from USD to Yen, to Pound and to Swiss Franc.

Adding a Favicon - 1 – Adding a favicon to the web to have a more beautiful and more stylish web page.

Total of points: 42