Dash Assignment: Analytics Dashboard

Assignment overview:

The assignment aims generally to assess the candidate's knowledge of the use of Dash python framework and Dash/Plotly data visualization tool.

Prerequisites:

To be able to work on this assignment, knowledge of Python programming language, with minimum/basic skills will be needed for the following steps:

- Data loading and Data Aggregation
- Data Analysis and cleaning
- Data visualization

Objectives:

The objectives mainly target Dash development, including:

- Dash App architecture
- Layout and Design of a Dash application/dashboard
- Use of dash components to visualize and interact with data (charts, tables…)

Requirements/Task(s):

Task 1 Choose your dataset (if possible, business/trading related dataset)
We propose using this dataset https://www.kaggle.com/datasets/unitednations/global-commodity-trade-statistics, if you prefer to use another dataset you can refer to Kaggle website.
Task 2 Create a dashboard layout that includes:
- Filters/control panel (make sure to use diverse input types)
- Display a minimum of 3 charts and table
- Optionally make it a multiple-page app

Task 3 Make the dashboard interactive by adding in callbacks to allow the use of the filters.
Bonus Task: Add in your personal touch to the dashboard, either in the UI/UX or on the functional level of the app

Hints:

For ensuring the correct delivery of your assignment, here are a few tips:

- Use a code versioning tool (preferably GitHub,) to store your code
- You are free to choose your IDE, we would advise to use PyCharm

- Create a virtual environment for your project requirements
- Add in comments to your code for better readability

Assignment delivery

We would expect you to send us back an email containing:

- The URL to your GitHub repository (should be public to allow us the access) which includes your project files, and the dataset of course.
- Screenshots / screencast of the dashboard showcasing the application and its functionalities
- A short document/presentation of your work to describe your intentions