**Take Home Assignment**

Assignment: Streamlit App Development for Dataframe Display and Filtering

Objective: The purpose of this assignment is to evaluate your coding proficiency and creativity in data visualization as you’ve already cleared the technical round.

Task: Develop a Streamlit application that can display a dataframe and facilitate user-defined filters on dataframe columns. For instance, consider a dataset comprising European car manufacturers with attributes such as brand name, model name, sale year, and sale price. The application should enable users to filter specific data, such as the sales price of BMW Series 3 and Mercedes C Class for the year 2022.

You are free to choose any dataset that allows users to perform column/key word/date-specific searches on the frontend. Here is a [link](https://www.kaggle.com/code/beelaboo/car-dataset/input) to a sample dataset on Kaggle for your reference.

Additionally, incorporate an option for users to perform visualizations on the dataset. You may incorporate existing APIs e.g. OpenAI API, Google Vertex AI, Claude etc to perform both filtering and visualisation- although it’s not mandatory.

Submission:

1. Deploy the application on Streamlit Cloud (free of cost) or any other platform of your choice.
2. Set your GitHub repository containing the app code to “Private” and add 'SSS2107' GitHub ID as a collaborator. Send the GitHub repo link to the recruiter who contacted you.

Note: If you encounter difficulties in deploying the application, ensure to provide reasonable documentation, including a video demo, on GitHub.

You’ve 10 days to finish this assignment from the date of receipt. We look forward to seeing your innovative approach to this task. Good luck!