Floqer's Assignment for Software Engineering Role

Thank you for submitting the application. We think you can be a great fit and we ask you to complete this assignment. This assignment is designed to help us understand your technical skills. Our team interviews everyone who completes this assignment, so we encourage you to attempt to complete it.

Some points and tips:

1. Feel free to use whichever language/components you like.
2. React (in TypeScript) is preferred because we use it.
3. Check out Ant design for components but feel free to use whichever library you're comfortable with.
4. There is no hard rule, so be creative on these tasks.

Task 1: Basic Table - 10 points

Data Information:

- You'll be working with the data set here
- The dataset provides information on ML Engineer salaries from 2020 to 2024
- You can either create an API to fetch this data or just put this data in a file in your frontend codebase.

Description:

Based on this data, create a table (call it "main table") with the following columns:

1. Year
2. Number of total jobs for that year
3. Average salary in USD

Users should be able to sort the table by any column.

Task 2: Analytics - 30 points

Now our users want to understand this data even further. Using the same data, create the following:

1. A line graph that shows how this number has changed from 2020 to 2024 (kaggle link above has a similar bar graph)
2. Now, when I click a row from our main table, a second table should appear that displays aggregated job titles and the number of jobs for that year. For example, if the user clicks on 2022, all the titles from 2022 should appear in another table, along with the sum of how many times each job appeared in 2022.

Bonus task: Using LLMs - 60 points

Now let's say our users want to find insights from the data beyond the graphs. It was not possible before LLMs, but today it's possible.

Create a chat app that creates the best response based on business knowledge. There's a tutorial attached to this which shows how to do it for Sales Emails, your job is to do it for data from Kaggle (**not the sales emails**)

Here's a tutorial that shows how this can be achieved: https://www.youtube.com/watch?v=c_nCjlSB1Zk. Again, if you have a better way of doing this, use that. We encourage everyone to be creative.

For the bonus task, you'll need a LLM model. Check out Groq (groq.com), it provides free API access with certain limits.

Submission instructions:

1. Use Netlify or some other free tool to host your work, and share the link.
2. Push your code on GitHub and share the link with us as well.