Front-end Engineering Assignment 1

Introduction

At Valyx, we are developing a sophisticated solution tailored for enterprises, enabling them to gain invaluable insights from their bank account statements. This, in turn, empowers businesses to enhance their decision-making processes significantly. We are dedicated to crafting a robust set of tools that streamline the extraction of critical information from these statements, ultimately providing our clients with the means to make more informed and strategic choices.

Task 1

At any point of time, a business is interested in figuring how much they are spending on a particular category like salary, infrastructure, marketing etc. At the same time they might be also interested in looking at categories where they are earning money from e.g. online sales etc. This data can be fetched using line item descriptions in bank account statements. However a business might be maintaining multiple accounts and we will have to search across statements to get a clear picture of things.

Your task is, given a bunch of bank account statements, build a tool where the user can -
- Search by keywords across bank account statements. For example - A user can search by "salary" and all the line items containing salary should be displayed to the user.
- Select a list of bank accounts across which the user wants to search.
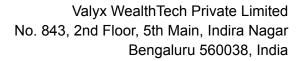- Select a time range across which the search is to be done.

Feel free to use any tools that might help you and any database that will help in doing these kinds of queries. However, please provide an explanation of why you chose to use them.

Task 2

The users might be interested in how certain expenses/income are trending over time and what are their aggregated values. As a result we want to develop a tool where **users can input** certain categories and see the spends or earnings on those categories both aggregated and over time.

For simplicity, you can assume that a category is a keyword (like "salary") and if a line item contains that keyword it falls under that category.

For this task it is up to you to design how you want to present this data to the user and build it accordingly.

Task 3 (Optional)

At times the businesses might not be aware about where they are spending money or earning money from. As a result, they might not be aware of the categories across which they would like to track their spends/earnings.

To help them here, your task is - given a set of bank statements, identify these categories (programmatically) and provide the users with break down across these categories. In other words your program should be able to identify most common categories automatically just by parsing the bank statement.

On clicking a particular category, a user should be able to see the same information that is presented in task 2.

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What will be looking at -

- Code modularity, abstractions and readability.
- Technical and design decisions made and reasoning.
- Ability to understand the problem and user first thinking.