Final Implementation Project

Bookkeeping Web App For Information Organization

I propose developing a bookkeeping web application that captures and categorizes financial data from screenshots. This application will utilize Optical Character Recognition (OCR) to extract numerical information from uploaded images and prompt the user to categorize it for organized record-keeping. Users will be able to upload screenshots of financial transactions, which will be processed using the [Google Cloud Vision OCR API](). The app will then prompt users to classify each amount with attributes. The categorized data will be stored in a [Google Sheets document](), which can generate basic reports and visualizations of spending patterns, providing users with insights into their financial activities.

This project explores the categorization and schema part of the class. By implementing a structured categorization system, the app will allow users to systematically record transactions, making future retrieval efficient. Additionally, it incorporates retrieval mechanisms through a tagging system that enables users to filter and analyze their data by attributes such as date, amount, account, and category. The web app will serve as a platform that organizes personal financial data in a way that allows users to better understand and manage their spending behavior.

There are no overlaps with other course projects.

Timeline

•Week 1: Set up web app framework and integrate the OCR API for image processing.

•Week 2: Develop categorization and tagging functions to prompt the user to classify data.

•Week 3: Integrate Google Sheets API to store data and generate visualizations.

•Week 4: Test the application, refine the user interface, and make final adjustments.

Questions for Feedback

As for attributes, I plan to implement income or expense, the associated account (e.g., "chase credit card" "Bank of America checking account"), and a two-level category (e.g., "food" contains sub-categories such as "groceries" "dining out"). Are there additional attributes or tagging mechanisms that could enhance data retrieval?

suggestions on additional visualization techniques or analysis functions would be valuable.

Initial Resources

For technical guidance, I will use online course "MERN Stack Expense Tracker", which relies on manual input of numbers and attributes. For API and HTTP requests, I will also refer to React Front to Back 2022.