Budget Tracking System

Author: Azza Mohamed

Reviewer:

- Sama Gomaa
- Sara Mahmoud
- Sara Ashraf
- Sama Mostafa
- Esraa Hossam

Table Of Content

Introduction

This document outlines the design of a budget tracking system. This system will allow users to track their income and expenses, categorize their spending, and generate reports to gain insights into their financial health

Goals

- Provide a user-friendly platform to record income and expenses.
- Enable categorization of transactions for better budget management.
- Offer reporting functionalities to analyze spending patterns and track financial goals.
- Promote informed financial decision-making for users.

Requirements

a) Functional Requirements

- Users can register and create accounts.
- Users have full control on their budgets.
- The system allows user to add income and expences transactions.
- Users can track the spending progress of the targets they created.
- Users can view the transaction history and filter transactions by wallet account.
- The system offers basic reporting features (e.g., income vs. expenses by month) and filter by date or wallet account.

b) Non-Functional Requirements

- The system should be responsive and accessible on various devices (desktop, mobile).
- Data security is crucial, ensuring user information and transaction details are protected.
- The system should be reliable and offer high uptime.
- The interface should be user-friendly and easy to navigate.

Architectural Design

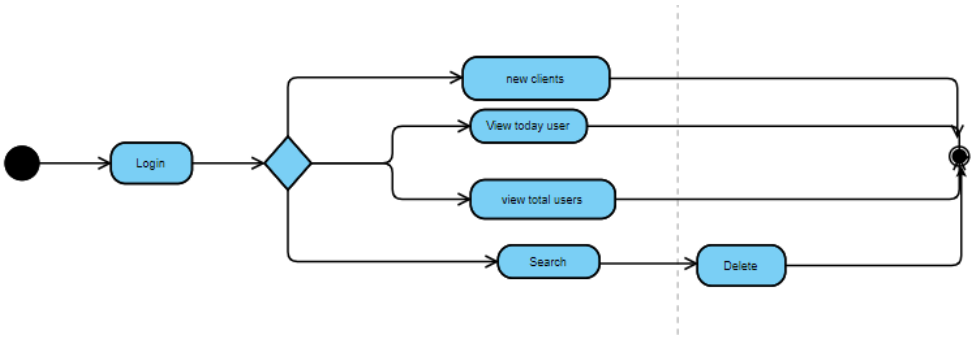
The system will be designed with a three-tier architecture:

- **Presentation Layer:** This layer handles the user interface (web or mobile app) for user interaction.
- **Business Logic Layer:** This layer processes user actions, performs calculations (e.g., generating reports), and interacts with the data layer.
- **Data Layer:** This layer manages data storage and retrieval, utilizing a database to store user information and transaction details.

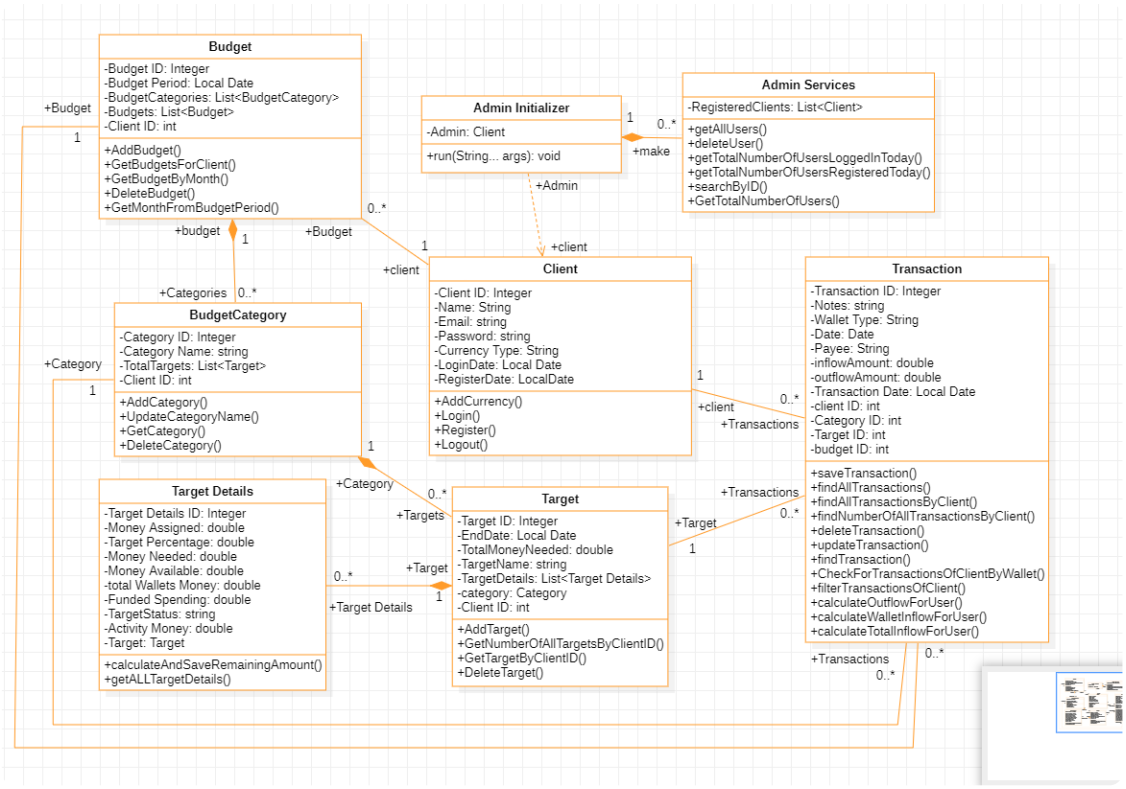
Detailed design (uml diagrams)

1 - **Activity Diagram**

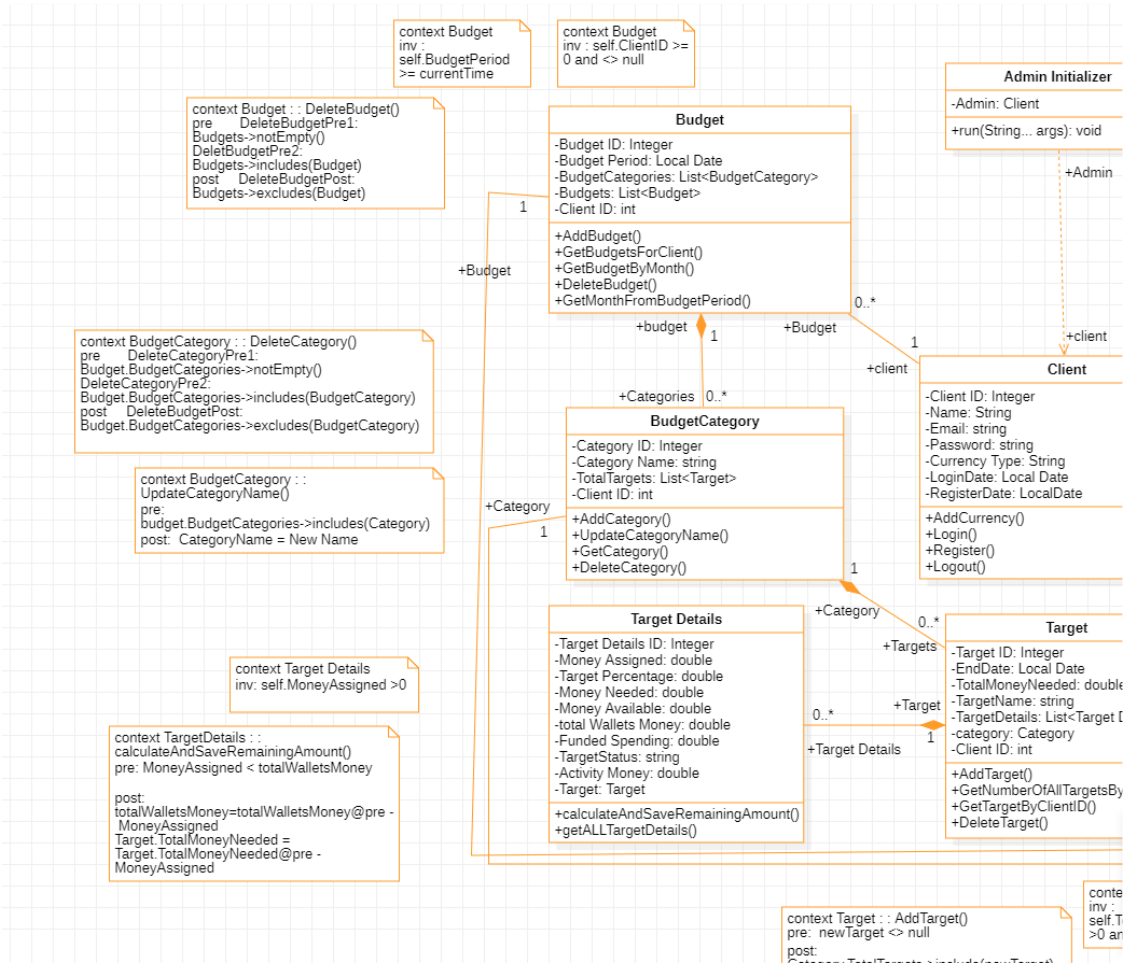
- User flow
- Admin flow

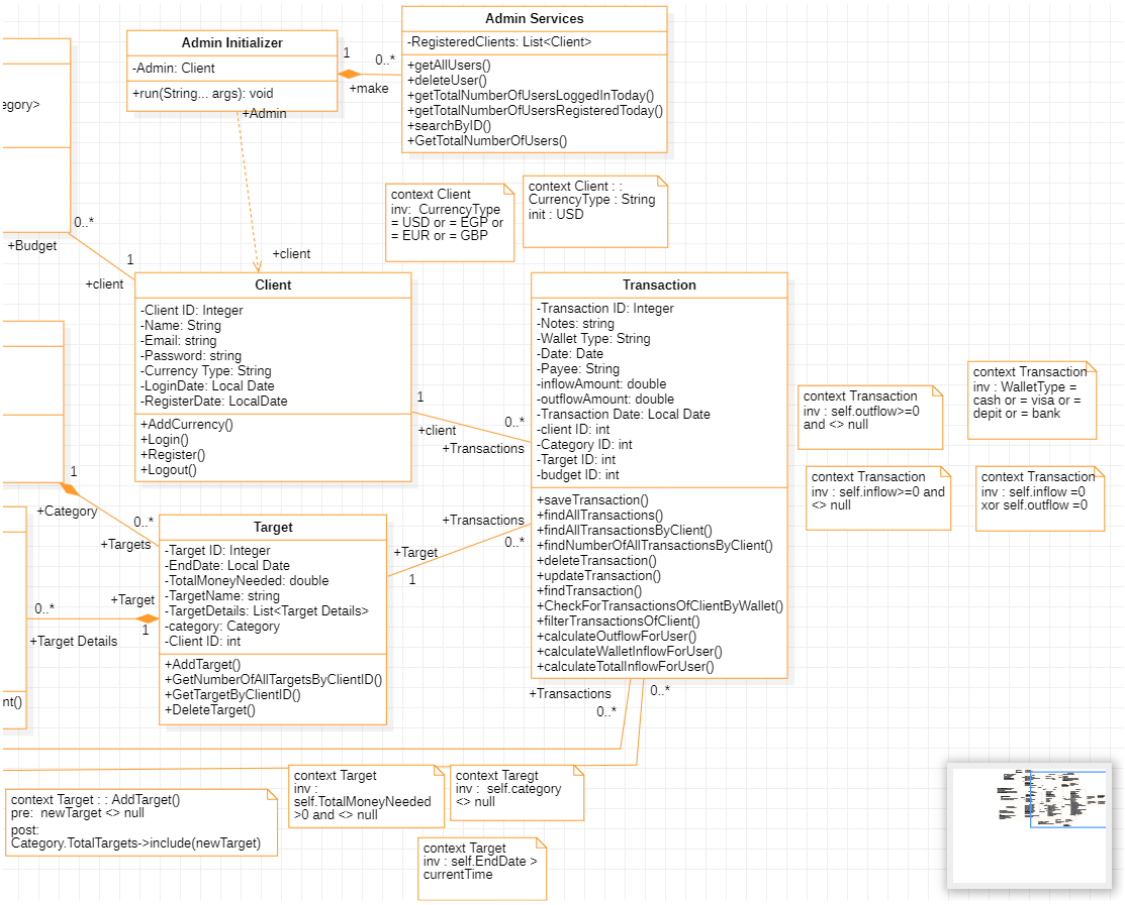


2 - Class Diagram

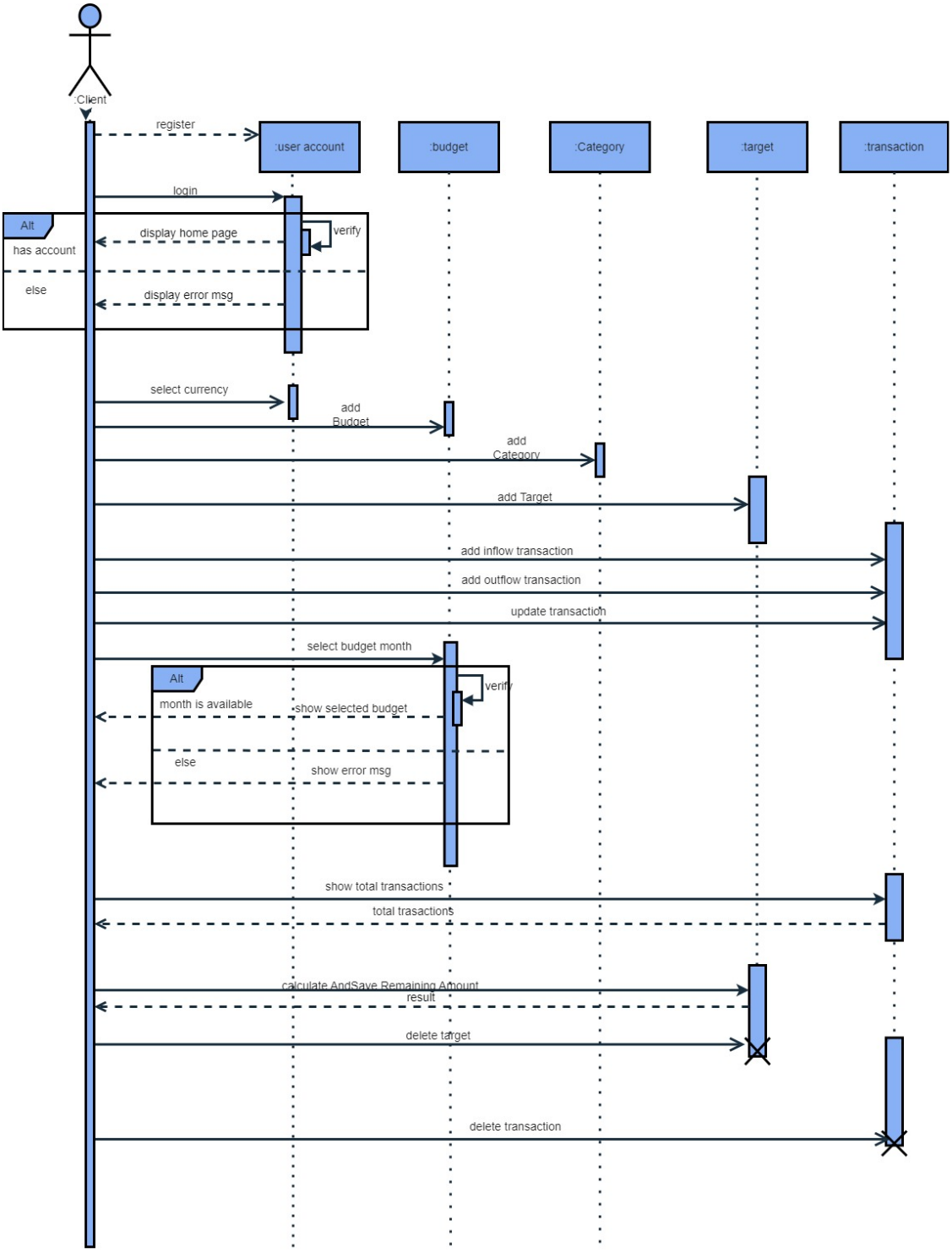


3 - OCL Diagram

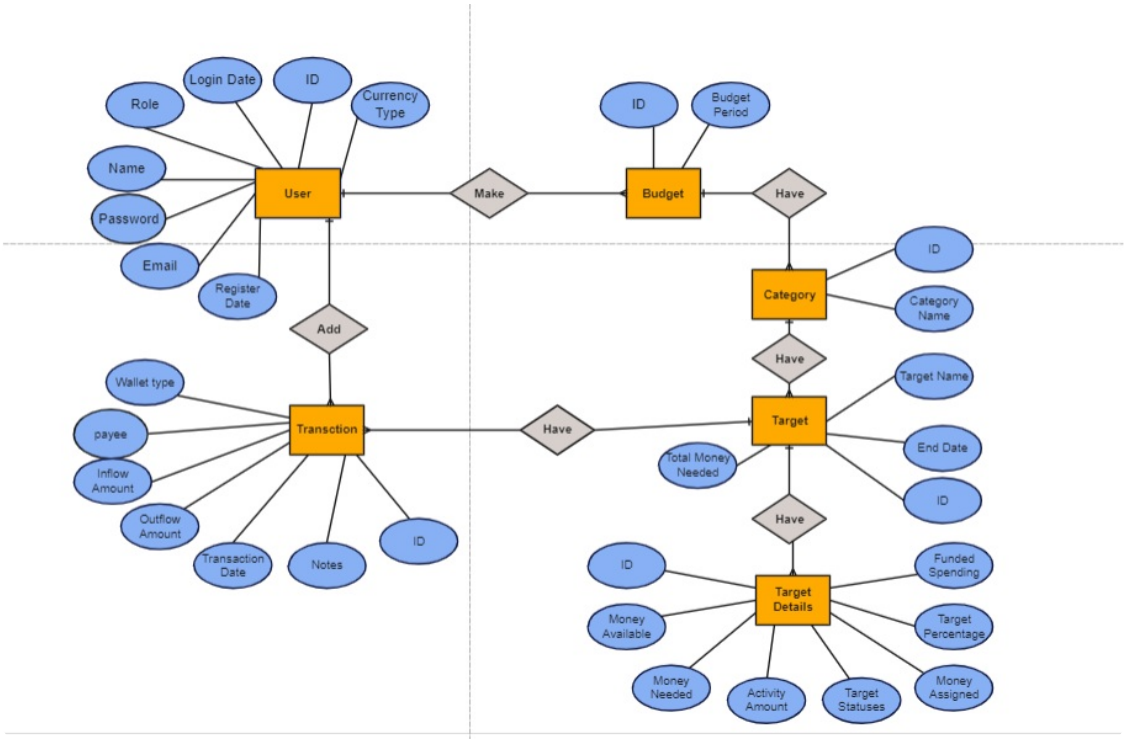




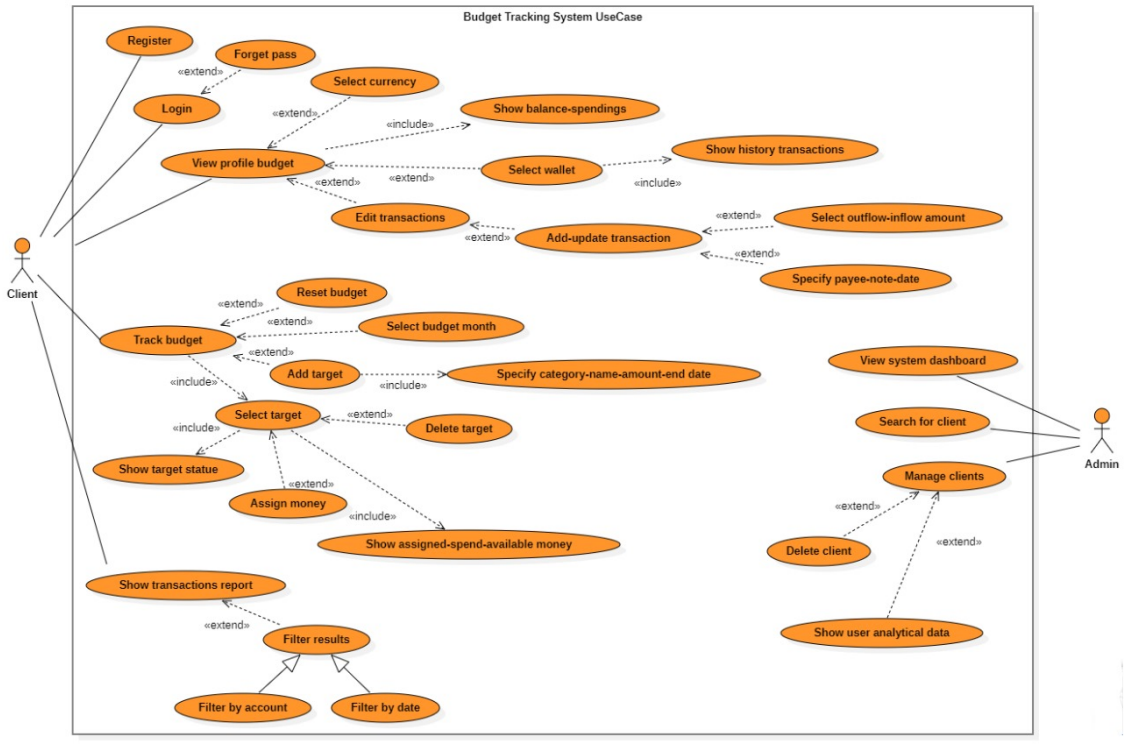
4 - Sequence Diagram



5 - ERD Diagram

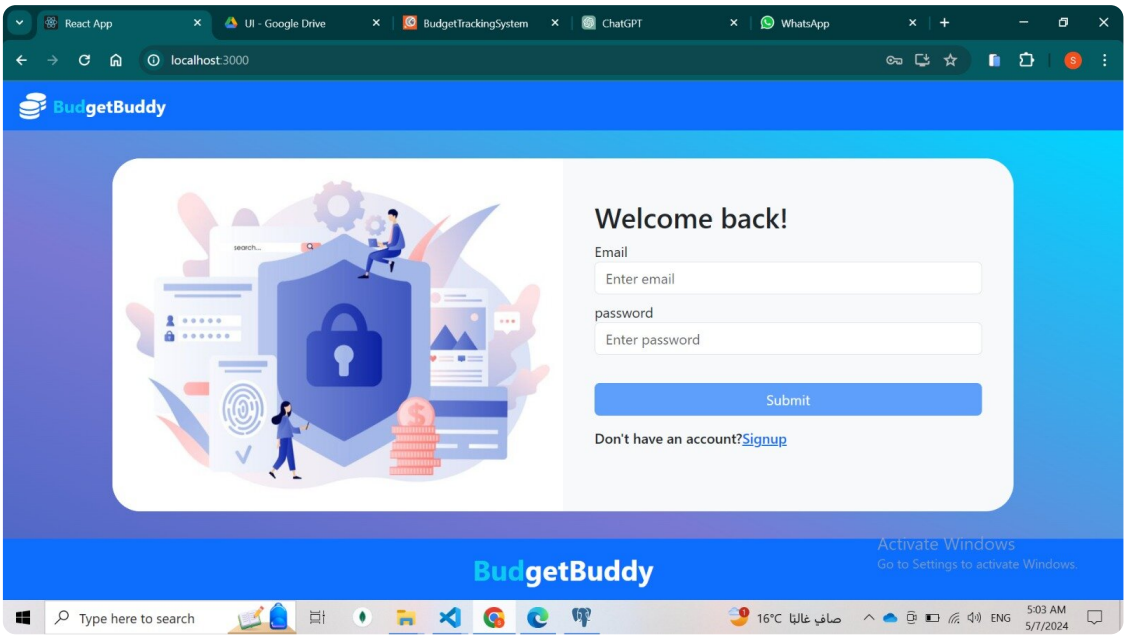


6- Use Case

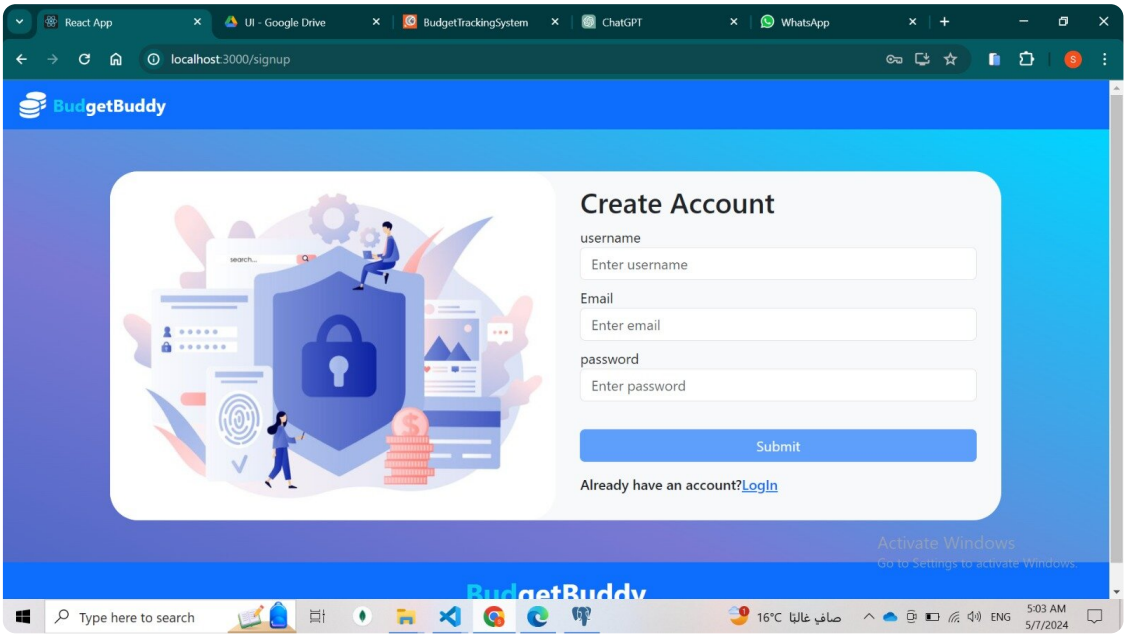


User Interface Design

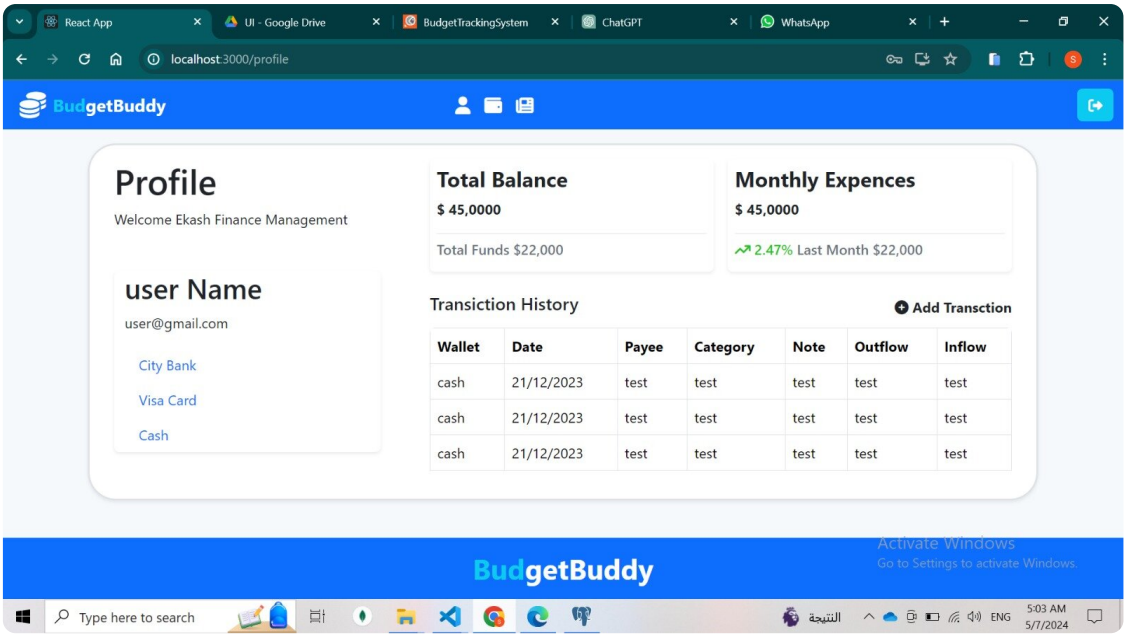
- login
  User can login using email and password and can go to signup page if he don't have account.



- sign-up
  user can signup in our system using usernam,email,password

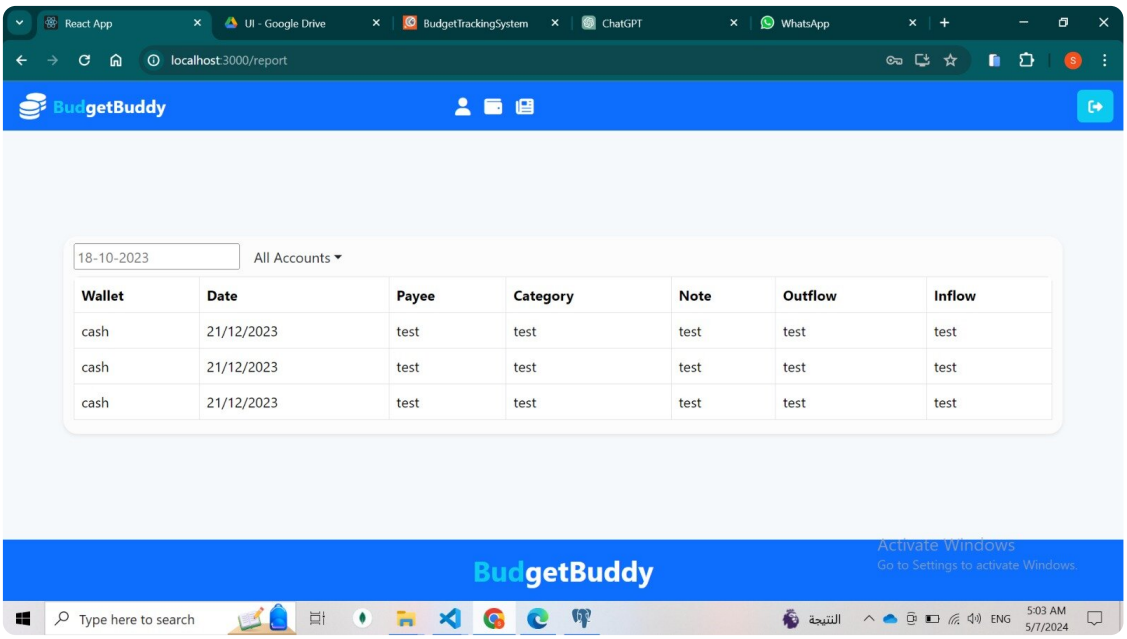


- Profile
  user can select account from (City Bank , Visa Card ,Cash) , View Total Balance,Monthly Expenses and Transaction History



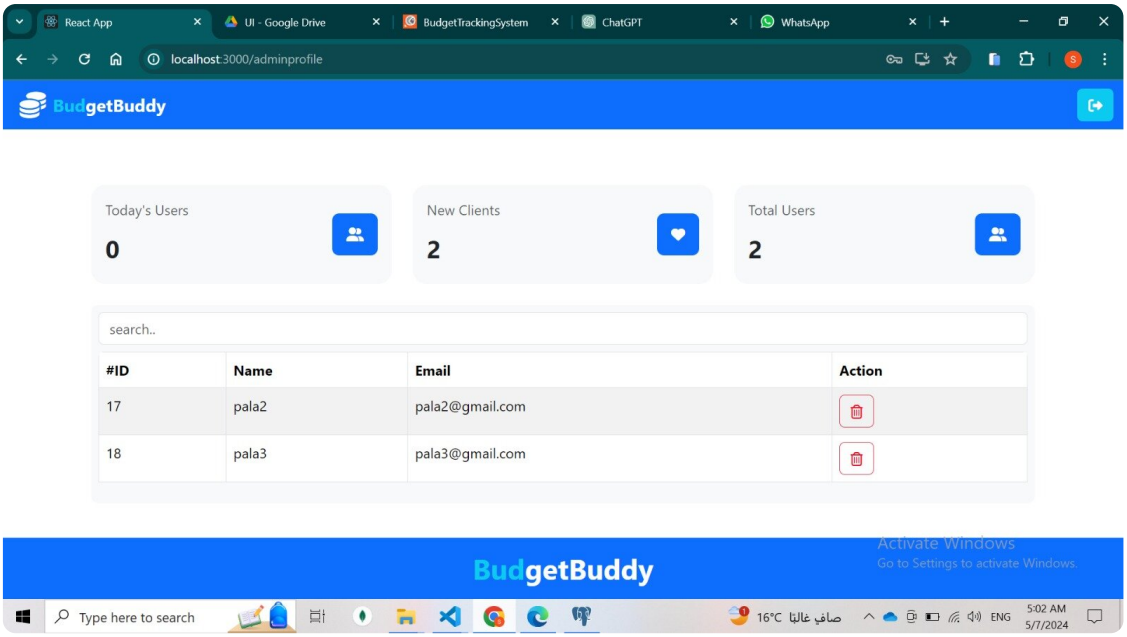
- Report

  user can view and download his report by flitring with date or category



- Admin Profile

  admin can view today users,new clients,total users ,all users and delete user if he want



Security Considerations

- Secure user authentication methods will be implemented (e.g., password hashing,JWT).
- Data encryption will be used to protect sensitive information during storage and transmission.
- Access control mechanisms will restrict unauthorized access to user data.

Testing Strategy

User Acceptance Testing (UAT): Users will test the system for usability and functionality to ensure it meets their needs