NovaBank: A Bank Management System

Group Members:

1. Vikash Bhati - 2023594
2. Jaideep Dahiya - 2023254
3. Satvik Arya - 2023493
4. Swarit Kumar - 2023540

1. Objective

Design and implement a comprehensive Bank Management System that facilitates seamless account management, secure financial transactions, and efficient administrative oversight. The system will cater to three key user groups: clients, staff, and administrators, ensuring a personalised, secure, and efficient banking experience.

In an Online Banking Management System, clients can manage their finances, staff can oversee client transactions, and administrators can maintain overall system control. By digitising banking operations, this system aims to reduce human errors, improve security, and enhance the overall user experience.

2. Project Scope

Banking is an essential aspect of daily life, and the growing need for seamless and secure financial transactions calls for innovative solutions. **NovaBank**, an advanced banking management system, is a web application designed to redefine the traditional banking experience by providing a robust platform that connects administrators, staff and clients while ensuring a user-friendly interface and secure transactions.

- **Clients** can easily manage their accounts, perform financial transactions and track their banking activities.
- **Staff** facilitates client services, processes financial transactions, and ensures compliance with banking regulations.
- **Administrators** oversee all operations, manage accounts, analyse financial data, and maintain the system.

Apna-Bank's primary objective is to streamline banking operations while focusing on scalability, security, and accessibility. The platform will be responsive, ensuring compatibility across devices.

3. Detailed Overview of Functionality

3.1 Client Management

- **Registration:-** Clients create an account with unique credentials, including a valid email address and a strong alphanumeric password.
- **Login:-** Secure access to the platform using credentials.
- **Account Management:-** Ability to create multiple account types (e.g., savings, current) and update personal information.
- **Transactions:-**
    - Deposit and withdraw money from accounts.
    - Transfer funds between accounts or to other registered users.
    - View transaction history and account balances.
- **Loans:-** Clients can ask for a loan based on their needs, like a loan for education, a home, a car, etc.
- **Reports:-** Clients can generate and download transaction statements.
- **Dashboard:**- A personalised view of transaction analytics displayed via charts.
- **Notifications:-** Receive updates for successful transactions, low balances, and other activities.
- **Feedback:-** Provide feedback to improve the banking experience.

3.2 Staff Management

- **Login:-** Staff can log in using credentials assigned by the admin.
- **Client Services:-**
  - Update client details.
  - Manage client accounts and process transactions.
  - Roll back incorrect transactions if needed.
- **Financial Operations:-**
  - Deposit or withdraw funds for clients.
  - Perform account balance inquiries.
  - Process inter-account transfers.
- **Loan:-** Approves the loan request if genuine and also tracks and handles all the loan payments
- **Reports and Analytics:**- View and download transaction history and detailed financial reports.
- **Availability:-** Update availability status to handle client queries or requests effectively.

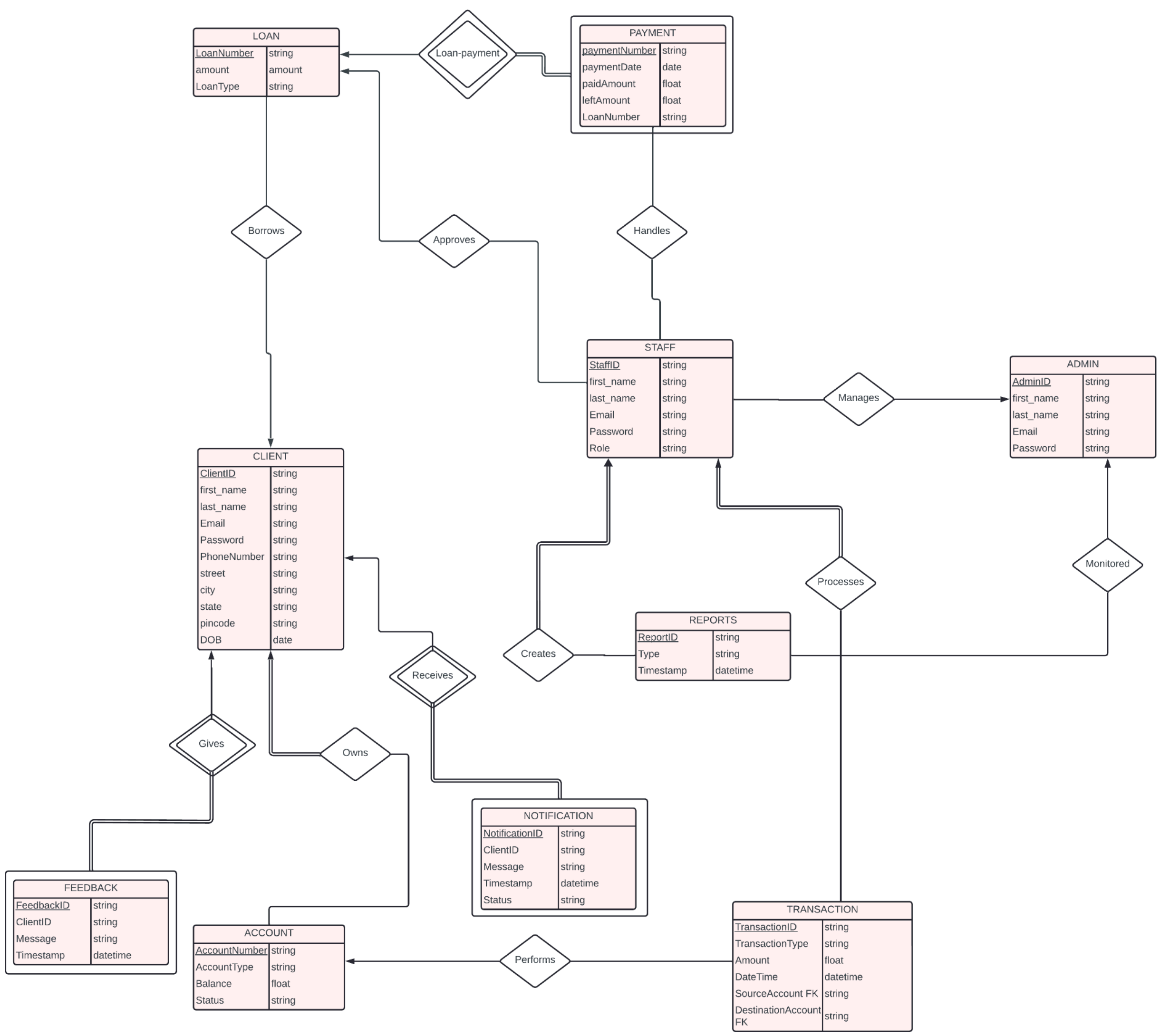
3.3 Admin Management

- **Admin Dashboard:-** A comprehensive overview of the system, including:
  - Total transactions, revenue, and account statistics
  - Trends in deposits, withdrawals, and transfers
- **User Management:-**
  - Add, edit, or remove staff and clients.
  - Manage user permissions and reset passwords.
- **Account Types:**- Create and manage account categories like savings or current accounts.
- **System Settings:-** Update platform settings, such as the application name.
- **Financial Oversight:-**

- Deposit and withdraw funds.
- Transfer funds between accounts.

- **Reports:-** Generate and export detailed reports on deposits, withdrawals, and transfers.

4. ER Diagram



[Link to ER diagram]

Comments

We used ChatGpt to identify the basic mandatory functionalities of a bank.
We also used lucidChart to draw the ER diagram.

Contribution

With combined discussions and meetings, we all contributed equally to designing the detailed requirements description of the project and its ER model.