**Bank Management System**

**Proposal**

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**Section:**

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**Introduction:**

We have chosen **'BANK MANAGEMENT SYSTEM**', as our database systems lab course project. It is because the banking management system segment has seen some of the most rapid growth in the last recent years, and with the number of customer interactions growing by the day,we will have ample amounts of data to manipulate in our database system.

When it comes to managing cash or valuable assets, it becomes a critical matter for both the service provider and the client, as well as for trustworthiness. Therefore, our banking management system will rank among the most complicated systems as everything will be covered under one roof for customer transparency.

From managing customer information, account information and transactions that occur every minute or second. It will not only save transaction details and other information, but will also reduce the need for manual labor. The automated tasks will be error-free because they will only work as they are programmed, whereas doing work manually always has the possibility of human error.

**Functionalities**

**Major**

The major functionalities that will be included in our management system are:

1. **Personal Details:**

It will cover the name, phone number, id card number, date of birth, and address of the user/customer.

1. **Login/Sign-up**:

The user will be able to log in or sign up for their account. If he/she has already created the account, it will just need to be logged in. Otherwise, the sign-up feature will allow her/him to create the account by filling in the required details such as first name, last name, phone number, id card number, ATM card number, and password.

1. **Bill Payments**

Users will be able to make electricity, gas, and water bill payments and would also be able to pay traffic challan fees. It will also allow them to pay the internet fees or bills of any other service.

1. **Card Details**

It will provide the details of the user's card including, the type of cards the user owns, the number of each card, details about his virtual card, card limit, and its expiration date.

1. **Transactional Details**

Every time an account holder performs some activity on the account, it is updated through transactions, which only shows the necessary details. The transaction details will cover the last 3 weeks' incomings and withdrawals done by the user along with its date, time, and sending and receiving bank account number. We will also provide the users the option to generate bank statements.

This functionality will aid in keeping track of the bank's cash flow. Also, it will assist in managing the correct information to check if there is a data/amount loss on the bank’s side.

1. **Cheques**

It will provide the details of the user's cheque or its deposit details. Everything related to cheques will be covered in this feature.

1. **Money Request**

We will allow the user to request money from any account number, by entering a specific amount of information.

The user will need to enter the account number they want to receive their payment from, and the amount of money. Just by following these easy steps, the money request will be sent to the desired account number.

1. **Beneficiaries**

We will differentiate the beneficiaries of the user's account by giving a specific difference to the regular users. i.e. The one who regularly sends/recieves money to/from the user.

1. **Account Details**

The account allows the customer to take advantage of the bank's services. Every customer has a unique account number, and the bank will only recognize you by that account number. The account number will be the same for all of that bank's branches.

A customer can also have the following types of accounts:

1. Current Accounts
2. Savings Accounts

To check if the customer is active, we will define it by the customer's most recent transaction. After 6 months of no transactions, the savings account must be reactivated.

1. **Deposit and Withdrawals**

This feature will allow the user to do bank-to-bank transfers. The transfer(s) can be in the form of deposits or withdrawals.

1. **Mobile Top Up**

This feature is the simplest yet one of the most important features. As, the user will be able to recharge his/her mobile phone, by using the money in his account.

1. **Online Purchases**

As obvious from the name, one would be able to do online purchases by using his account number, and obviously the money.

It will also cover the specific coupons and discounts covered on online purchases.

1. **Education**

Most schools, colleges, and universities have started to accept fees using online payment methods. Therefore, this allows the user to pay the fees using his account number.

It will also cover the name of specific schools, colleges and universities which are accepting online fees.

1. **Loan**

This entity of our management system is for the user who has applied for a loan from the bank. It will hold the details of the loan for a particular account number. If the user does not have any loan, the null values will be set for that particular account.

It will also cover the interest rate which is the rate charged (by the bank) on the loan given to the customer. Thus, one would be able to take the loan, manage the debts and calculate the interest rate.

1. **Donations**

It will allow one to make donations to the specific or registered charities center. The most common ones are Edhi, Cheepa, Shaukat Khanum, etc. Users will also be able to cover their zakat per year.

1. **Budget Planner**

The best yet interesting functionality is a budget planner. The user will be able to plan his/her budget using the average amount spent by him each month. It will also give suggestions on when the user has to invest, save or spend money.

**Secondaries**:

We have decided on a few secondary functionalities for our database management system, just in case the major one doesn't go as planned, we might look for any one of them.

1. **Family Cards**

It will cover the details of the user's family cards. If a user has a kid below 18 years old, he/she can get a card issue on his behalf!

1. **Traveling**

As clear from its name, the traveling feature will allow the user to do the online booking of the most famous bus, train, or plane tickets throughout the country.

Such as Daewoo, PIA etc.

1. **Leasing**

This certain feature is commonly used around the world which gives users the ability to lease cars, bikes, etc through banks. This provides financial and safety insurance to the customers which use this functionality.

1. **Investments suggestions/Organizer**

We will give suggestions related to the investments of the user. It will help him/her to make better and safe use of money instead of wasting it for nothing. The user will also have access to an investment organizer via this feature.