BANK MANAGEMENT SYSTEM

This report covers the code that implements a simple Bank Management System. The system allows users to create accounts, deposit money, withdraw money, and check account balances.

CODE OVERVIEW

Libraries Included:The program includes the standard library `<iostream>`, which provides functionalities for input and output operations, and `<string>` for string manipulations.

Class Definition:
- Account Class: This class stores information about a bank account. The class includes fields for the account holder's name, account number, and account balance. It also provides methods for depositing money, withdrawing money, and checking the account balance.

- **Bank Class**: This class manages multiple accounts. It allows the creation of new accounts and retrieval of existing accounts using account numbers.

Function Definitions:
- `createAccount`: Creates a new account.
- `deposit`: Deposits money into an account.
- `withdraw`: Withdraws money from an account.
- `getBalance`: Checks the balance of an account.

Main Function (`main`): The `main` function serves as the entry point of the program. It displays a menu to the user with options to create an account, deposit money, withdraw money, check balance, and exit the program. It uses a `switch` statement to execute the chosen action.

ALGORITHM

Function createAccount():
1. Ask and store the user’s name.
2. Generate a new account number.
3. Initialize the account balance to the specified initial deposit amount.
4. Store the account information in the Bank class.
5. Display a message indicating the account was created successfully and show the account number.

Function deposit():
1. Prompt and input the account number.
2. Prompt and input the amount to deposit.
3. Add the amount to the account balance.
4. Display a message indicating the deposit was successful and show the new balance.

Function withdraw():
1. Prompt and input the account number.
2. Prompt and input the amount to withdraw.
3. If the balance is sufficient, deduct the amount from the account balance.
4. Display a message indicating the withdrawal was successful or show an insufficient balance message.

Function getBalance():
1. Prompt and input the account number.

2. Display the account balance.

KEY FEATURES

1. **Class Definitions**: The use of classes encapsulates the data and related functions, making the code modular and easy to manage.
2. **Encapsulation**: The Account class encapsulates account-related data and operations, ensuring that the data is manipulated only through defined methods.
3. **Simple Interface**: The main function provides a simple text-based interface for the user to interact with the system.

CONCLUSION

The program implements a basic Bank Management System in C++, allowing users to create accounts, deposit money, withdraw money, and check balances. It utilizes classes, encapsulation, and basic input/output operations to achieve its functionalities. While functional, the code could be improved and extended with features such as error handling, account deletion, and persistent storage to make it more robust and user-friendly.

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