MEDI-CAPS
UNIVERSITY

OOPS MINI PROJECT ON TOPIC :

ATM MANAGEMENT SYSTEM

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About ATM Machine

- ATMs are Automated Teller Machines that are used to carry day-to-day financial transactions. ATMs can be used to withdraw money or to deposit money or even to know the information of an account like the balance amount, etc.
- They are convenient and easy to use, it allows consumers to perform quick self-service transactions.

Our Project In Brief

- Here is a simple project on ATM(Automated teller machine).The code is written in C++ language. Visual studio is used to compile the code.
- This code can perform most of the functions that all standard atm machines can do.
- You can check amount present in your account, withdraw balance, update mobile no., Check user details, etc.
- ATM management system we designed is efficient and easy to use.

Technology Used

- **Technology:**
- We have used **C++ programming language** to design this ATM management System.
- We have used **VS code editor** to run this code.
- We have used different **C++ Header files**. Like:
- #include<iostream>
- #include <conio.h>
- #include <string>
- #include <fstream>

A brief about C++ Header Files

- **<iostream>:**

This is a standard input output stream. Used for basic read and write operations.

- **<conio.h>:**

This is a non-standard header file used in C++ stands for console input and output because it contains most of console i/o functions.

- **<string>:**

This is required for implementation various string functions in C++.

- **<fstream>:**

This header file must be included in code if we want to perform file operations.

Concepts Implemented

- Class And Objects.
- Access Modifiers in C++.
- Data types and variables.
- Switch Case.
- If/Else statements.
- Concepts of strings and various types of operators.
- File Handling.

ATM FEATURES

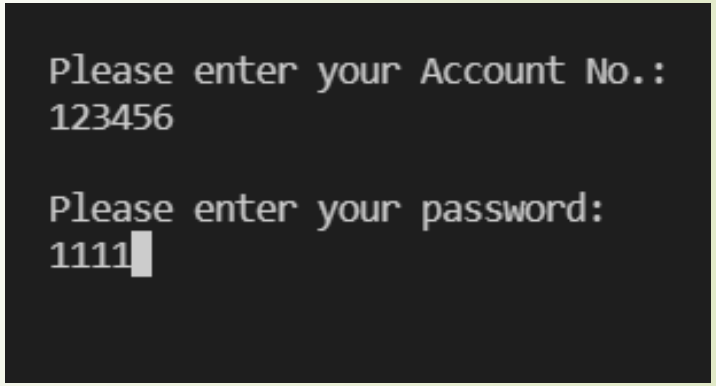
- **Secured Access**

Access into ATM is **secured by PIN**:

No user can access the atm without entering his/her correct Account No. and Password.

This is achieved with the help of **login() Function**.

It uses **file handling features** with the help of which it compares the user details and step in further only after details are matched and verified.



Cash Withdraw And Check Balance:

- These features are accomplished with the help of **cashWithdaw() and getBalance()** functions respectively.
- **cashWithdraw()** function

1. Firstly find user's account
2. Then it deduct the amount user withdraw from user's existing balance.
3. Then update the user data file from deducted amount.

- **getBalance**() function:

1. Simply open the user detail file and print the existing user balance.

Check User Details:

- This feature is accomplished by a simple class object relation.
- Here object user is calling class functions getName(), getMob(), getBalance(), getAcc_No().
- These functions are returning Name, Mobile No., Account Balance, and Account No. of user respectively.

Update Mobile Number:

- In this feature object user call's getMobile() function and verify user's old mobile no. once it is done, user enter his new mobile no. and it get's updated.

Add Balance to Account:

- It is accomplished by a simple calling of addBal() function by object user.
- addBal() function adds the input amount that user had entered to the existing user's account balance. That updated balance is updated in the user file using ofstream function.

Nearest Bank Branch Details:

- This feature returns the distance of nearest bank branch from atm.

Search bank branch by PINCODE:

- First user enters the pin code near which he had to find bank branch.
- ATM reads the pin code and returns the address of branch at that pin code.

Search bank branch by City Name:

- User enters the city name in which he have to find bank branch.
- If bank have a branch in that city then it will display its address.

Fixed Deposit Facility

- Our Atm allows user to fix deposit their money for a specific period of time.
- User can make a FD of more than 25000 Rupees only.
- Making a FD of less amount will display a error message.
- After the FD is successfully created a success message with date and time is printed.
- This new FD is reflected in user’s account and details are saved.

Let us run the code…..

Improvements Required:

- Implementing GUI with enhance user experience.
- Fund’s transfer feature is lacking.
- More pin codes can be added in branch search feature.
- User is not able to change his/her atm PIN.
- No Administrator login feature.

- This project ATM Management System has been developed as flexible and efficient project within the available resources and time.
- Keeping in mind the improvements required in future more work can be done to improve its security and user experience.


Thank
You