



DEPARTMENT OF BASIC SCIENCE AND HUMANITIES

INSTITUTE OF ENGINEERING AND MANAGEMENT,

KOLKATA

“ATM SIMULATOR”

SUBMITTED BY:-

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SECTION-G

CLASS ROLL NUMBER-15

STREAM-ELECTRONICS AND COMMUNICATION ENGINEERING(ECE)

SUBJECT- PROGRAMMING FOR PROBLEM SOLVING

SUBJECT CODE-ESC-103(Pr)

UNDER THE SUPERVISION OF

PROF. SWARNENDU GHOSH

ACADEMIC YEAR:2022-2026

(PROJECT REPORT SUBMITTED IN FULFILLMENT OF THE
REQUIREMENTS FOR THE SECOND SEMISTER)



CERTIFICATE OF RECOMMENDATION

WE HEARBY RECOMMEND THAT THE PROJECT PREPARED UNDER
OUR SUPERVISION BY **ANIRBAN PAUL**, ENTITLED

“ATM SIMULATOR” BE ACCEPTED IN FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF FULFILLMENT OF THE SECOND
SEMESTER

HEAD OF THE DEPARTMENT
IEM,KOLKATA

PROJECT SUPERVISOR
BASIC SCIENCE AND HUMANITIES

1.INTRODUCTION:

THIS PROJECT IS ASSIGNED TO ME FOR DEVELOPING A ATM SIMULATOR WITH THE HELP OF BASIC C PROGRAMMING LANGUAGE. THE AIM OF THE PROJECT IS TO GENERATE ATM SIMULATOR WHERE WE CAN WITHDRAW MONEY ,DEPOSITE MONEY,CHECKING ACCOUNT BALANCE ECT.

2.VARIABLE DESCRIPTION:

THE DIFFERENT VARIABLES USED IN THIS PROJECT ARE LISTED UNDER:-

- 1.int-TO STORE INTEGER DATATYPES
- 2.char-TO STORE CHARACTER DATATYPES

3.FUNCTION DESCRIPTION:

1. ``void main()`:` This is the main function where the execution of the program starts.
2. ``unsigned long amount`:` This variable stores the current balance in the ATM.
3. ``void check_balance()`:` This function displays the current balance in the ATM.
4. ``void withdraw_cash()`:` This function allows the user to withdraw cash from the ATM.
5. ``void deposit_cash()`:` This function allows the user to deposit cash into the ATM.
6. ``void change_pin()`:` This function allows the user to change the PIN number of their account.

7. ``void exit()`:` This function is called when the user decides to exit from the ATM service.
8. ``void invalid_choice()`:` This function is called when the user enters an invalid choice in the ATM menu.
9. ``void invalid_pin()`:` This function is called when the user enters an incorrect PIN number.
10. ``void insufficient_balance()`:` This function is called when the user tries to withdraw more money than the current balance in the ATM.
11. ``void collect_cash()`:` This function is called when the user successfully withdraws cash from the ATM. It displays a message asking the user to collect the cash.

4.PROGRAM:

```
/*  
 * C Program to Display the ATM Transaction  
 */  
  
#include <stdio.h>  
  
unsigned long amount=1000, deposit, withdraw;  
  
int choice, pin, k;  
  
char transaction ='y';  
  
void main()  
{  
    while (pin != 1520)  
    {  
        printf("ENTER YOUR SECRET PIN NUMBER:");  
        scanf("%d", &pin);  
        if (pin != 1520)  
            printf("PLEASE ENTER VALID PASSWORD\n");  
    }  
    do  
    {  
        printf("*****Welcome to ATM Service*****\n");
```

```

printf("1. Check Balance\n");

printf("2. Withdraw Cash\n");

printf("3. Deposit Cash\n");

printf("4. PIN Change\n");

printf("5. Quit\n");

printf("*****?*****?\n\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice)

{

case 1:

printf("\n YOUR BALANCE IN Rs : %lu ", amount);

break;

case 2:

printf("\n ENTER THE AMOUNT TO WITHDRAW: ");

scanf("%lu", &withdraw);

if (withdraw % 100 != 0)

{

printf("\n PLEASE ENTER THE AMOUNT IN MULTIPLES OF 100");

}

else if (withdraw >(amount - 500))

{

printf("\n INSUFFICIENT BALANCE");

}

else

{

amount = amount - withdraw;

printf("\n\n PLEASE COLLECT CASH");

printf("\n YOUR CURRENT BALANCE IS%lu", amount);

}

break;

case 3:

printf("\n ENTER THE AMOUNT TO DEPOSIT");

scanf("%lu", &deposit);

amount = amount + deposit;

```

```

printf("YOUR BALANCE IS %lu", amount);

break;

case 4:

int newpin1, newpin2; //change it at initialization..

printf("Change PIN\n");

printf("Please enter your new PIN\n");

scanf("%d",&newpin1);

printf("Please re-enter your new PIN\n");

scanf("%d",&newpin2);

//ch=getch();

if (newpin1==newpin2)

{

pin=newpin1;

printf("Successful! Your PIN has been changed\n");

}

else

{

printf("Incorrect PIN\n");

}

break;

case 5:

printf("\n THANK U USING ATM");

break;

default:

printf("\n INVALID CHOICE");

}

printf("\n\n\n DO U WISH TO HAVE ANOTHER TRANSCATION?(y/n): \n");

fflush(stdin);

scanf("%c", &transaction);

if (transaction == 'n' || transaction == 'N')

k = 1;

} while (!k);

printf("\n\n THANKS FOR USING OUT ATM SERVICE");

}

```

5.OUTPUTS:

SAMPLES OUTPUTS(SCREENSHOTS) TO DEMONSTRATE THE FUNCTIONALITIES IN PROGRAM ARE LISTED BELOW.

1.CHECK BALANCE

```
ENTER YOUR SECRET PIN NUMBER:1520
*****Welcome to ATM Service*****
1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. PIN Change
5. Quit
*****?*****?

Enter your choice: 1
YOUR BALANCE IN Rs : 1000
```

2.WITHDRAW CASH

```
*****Welcome to ATM Service*****
1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. PIN Change
5. Quit
*****?*****?

Enter your choice: 2
ENTER THE AMOUNT TO WITHDRAW: 500
PLEASE COLLECT CASH
YOUR CURRENT BALANCE IS500
```

3.DEPOSIT CASH

```
1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. PIN Change
5. Quit
*****?*****?

Enter your choice: 3
ENTER THE AMOUNT TO DEPOSIT500
YOUR BALANCE IS 1000
```

4.PIN CHANGE

```
1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. PIN Change
5. Quit
*****?*****?*
```

Enter your choice: 4
Change PINPlease enter your new PIN
1235
Please re-enter your new PIN
1235
Successful! Your PIN has been changed

5.QUIT

```
1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. PIN Change
5. Quit
*****?*****?*
```

Enter your choice: 5
THANK U USING ATM

THANK

YOU: