Case Study- Banking Management System- Unit 2

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

#define MAX_ACCOUNTS 100

struct Account
{
    int accNumber;
    char name[100];
    float balance;

};

struct Account accounts[MAX_ACCOUNTS];
int numAccounts=0;

void createAccount();
void deposit();
void withdraw();
void checkBalance();
void displayMenu();

int findAccount(int accNumber);

int main()
{
    int choice;

    do
    {
        displayMenu();
        printf("enter your choice:  ");
        scanf("%d",&choice);

        switch(choice)
        {
            case 1:
            createAccount();
            break;

            case 2:
            deposit();
            break;

            case 3:
            withdraw();
```

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                break;

            case 4:
            checkBalance();
            break;

            case 5:
            printf("Exiting..\n");
            exit(0);

            default:
            printf("Invalid choice. Please try again.\n");
        }

    }
        while (choice!=5);
        return 0;
}

void displayMenu()
{
    printf("\n Banking Management System Menu:\n");
    printf("1.Create Account\n");
    printf("2.Deposit\n");
    printf("3. Withdraw\n");
    printf("4.Check Balance\n");
    printf("5.Exit\n");
}

    int findAccount(int accNumber)
    {
        for( int i= 0; i< numAccounts;i++)
        {
            if(accounts[i].accNumber == accNumber)
            {
                return i;
            }
        } return -1;
    }
    unsigned int age;
    char gender[10];
    long int aadharnumber;
void createAccount()
{
    struct Account newAccount;
    printf("enter account number: ");
    scanf("%d",&newAccount.accNumber);
    if (findAccount(newAccount.accNumber) != -1)
    {
        printf("Account number already exists. Please enter a different account
number.\n");
        return;
    }
    printf("Enter name: ");
```

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        scanf("%s",newAccount.name);
        printf("enter age=");
        scanf("%u",&age);
        printf("enter aadhar number=");
        scanf("%ld",&aadharnumber);
        printf("enter gender=");
        scanf("%s",gender);
        printf("Enter initial balance: ");
        scanf("%f",&newAccount.balance);

        accounts[numAccounts++] = newAccount;
        printf("Account created successfully. \n");
}

void deposit()
{
    int accNumber,index;
    float amount;
    printf("Enter account number:  ");
    scanf("%d",&accNumber);
    index=findAccount(accNumber);
    if (index==-1)
    {
        printf("Account not found.\n");
        return;
    }
    printf("enter amount to deposit: ");
    scanf("%f",&amount);

    if (amount<=0)
    {
        printf("amount should be positive.\n");
        return;
    }
    else{
            accounts[index].balance+= amount;
    printf("Amount deposited successfully.\n");

    }



}

void withdraw()
{
    int accNumber,index;
    float amount;
    printf("Enter account number: ");
    scanf("%d",&accNumber);
    index= findAccount(accNumber);
    if (index==-1)
    {
        printf("Account not found.\n");
```

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            return;
        }

        printf("Enter amount to withdraw: ");
        scanf("%f",&amount);

        if (amount<=0)
        {
            printf("amount should be positive.\n");
            return;
        }

        if (amount > accounts[index].balance)
        {
            printf("Withdrawal amount should be less than balance amount.\n");
            return;
        }

        else
        {
        accounts[index].balance -= amount;
        printf("Amount withdrawn successfully.\n");
        }
}

void checkBalance()
{
        int accNumber,index;
        printf("enter account number:");
        scanf("%d",&accNumber);
        index = findAccount(accNumber);
        if (index ==-1)
        {
        printf("Account not found. \n");
        return;
        }
        printf("Name:%s\n",accounts[index].name);
printf("Balance:%.2f\n",accounts[index].balance);
}
```

Output

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  1
enter account number: 12333
Enter name: Srinidhi
enter age=18
enter aadhar number=12345678
enter gender=F
Enter initial balance: 35000
Account created successfully.

 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  2
Enter account number:  12333
enter amount to deposit: 4000
Amount deposited successfully.
```

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  4
enter account number:12333
Name:Srinidhi
Balance:39000.00
```

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  3
Enter account number: 12333
Enter amount to withdraw: 1000
Amount withdrawn successfully.

 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  4
enter account number:12333
Name:Srinidhi
Balance:38000.00
```

```
 Banking Management System Menu:
 1.Create Account
 2.Deposit
 3. Withdraw
 4.Check Balance
 5.Exit
 enter your choice:  5
 Exiting..
```

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  2
Enter account number:  12333
enter amount to deposit: -300
amount should be positive.

 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  3
Enter account number: 12333
Enter amount to withdraw: -300
 amount should be positive.
```

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  2
Enter account number:  1541
Account not found.
```

```
 Banking Management System Menu:
1.Create Account
2.Deposit
3. Withdraw
4.Check Balance
5.Exit
enter your choice:  1
enter account number: 12333
Account number already exists. Please enter a different account number.
```