

This simulated banking system is written in C++. There's a class Bank set, private members to account number (acno), name (name) and balance. The class has member functions to open an account, print the accounts on screen (we have used std::cout as output mechanism), deposit and withdraw money from the account. As a reference to our practical use of this structure we have added function search_by no(), which prints out all records with tax number equal to certain value given in parameter.

In the main function, an array of three Bank objects (C [3]) is initialized. The program then enters a loop where the user is presented with a menu of options:

Display All: Displays information for all accounts.

By Account No: By number of accounts, search for and display information on an account.

Deposit: Asks the user to enter a passbook account number and deposits.

Withdraw: Encourages the user to please enter an account number and withdrawal amount.

Exit: Exits the program.

Simply by entering the corresponding number, users can select from an option. Looping the program until you select Exit. Each choice involves whatever actions the Bank class methods do to work with them on bank accounts.

```
#include <iostream>
using namespace std;
```

```
class Bank {
private:
    int acno;
    char name[30];
    int balance;

public:
    void OpenAccount()
    {
        cout << "Enter Account Number: ";
        cin >> acno;
        cout << "Enter Name: ";
        cin >> name;
        cout << "Enter Balance: ";
        cin >> balance;
    }

    void ShowAccount()
```

```

{
    cout << "Account Number: " << acno << endl;
    cout << "Name: " << name << endl;
    cout << "Balance: " << balance << endl;
}

void Deposit()
{
    long amt;
    cout << "Enter Amount you want to deposit? ";
    cin >> amt;
    balance = balance + amt;
}

void Withdrawal()
{
    long amt;
    cout << "Enter Amount you want to withdraw? ";
    cin >> amt;
    if (amt <= balance)
        balance = balance - amt;
    else
        cout << "Less Balance..." << endl;
}

int Search(int);

};

int Bank::Search(int a)
{
    if (acno == a)
    {
        ShowAccount();
        return (1);
    }
    return (0);
}

int main()
{
    Bank C[3];

    int found = 0, a, ch, i;

```

```

for (i = 0; i < 3; i++)
{
    C[i].OpenAccount();
}

do
{

    cout << "\n\n1:Display All\n2:By Account No\n3:Deposit\n4:Withdraw\n5:Exit" << endl;

    cout << "Please input your choice: ";
    cin >> ch;

    switch (ch)
    {
    case 1:
        for (i = 0; i < 3; i++)
        {
            C[i].ShowAccount();
        }
        break;
    case 2:
        cout << "Account Number? ";
        cin >> a;
        for (i = 0; i < 3; i++)
        {
            found = C[i].Search(a);

            if (found)
                break;
        }
        if (!found)
            cout << "Record Didn't Found" << endl;
        break;
    case 3:
        cout << "Account Number To Deposit Amount? ";
        cin >> a;
        for (i = 0; i < 3; i++)
        {
            found = C[i].Search(a);
            if (found)
            {
                C[i].Deposit();
            }
        }
    }
}

```

```

        break;
    }
}
if (!found)
    cout << "Record Didn't Found" << endl;
break;
case 4:
    cout << "Account Number To Withdraw Amount? ";
    cin >> a;
    for (i = 0; i < 3; i++)
    {
        found = C[i].Search(a);
        if (found)
        {
            C[i].Withdrawal();
            break;
        }
    }

    if (!found)
        cout << "Record Didn't Found" << endl;
    break;
case 5: // exit
    cout << "Take care, have a pleasant day" << endl;
    break;
default:
    cout << "Wrong Option, Please Try Again" << endl;
}
} while (ch != 5);

return 0;
}

```

Right Output

```
Enter Account Number: 111
Enter Name: desch
Enter Balance: 2000
Enter Account Number: 222
Enter Name: venn
Enter Balance: 3000
Enter Account Number: 333
Enter Name: ken
Enter Balance: 4000
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 1
Account Number: 111
Name: desch
Balance: 2000
Account Number: 222
Name: venn
Balance: 3000
Account Number: 333
Name: ken
Balance: 4000
```

```
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 2
Account Number? 111
Account Number: 111
Name: desch
Balance: 2000
```

```
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice:
3
Account Number To Deposit Amount? 111
Account Number: 111
Name: desch
Balance: 2000
Enter Amount you want to deposit? 500
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 1
Account Number: 111
Name: desch
Balance: 2500
Account Number: 222
Name: venn
Balance: 3000
Account Number: 333
Name: ken
Balance: 4000
```

```
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 4
Account Number To Withdraw Amount? 222
Account Number: 222
Name: venn
Balance: 3000
Enter Amount you want to withdraw? 500
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 1
Account Number: 111
Name: desch
Balance: 2500
Account Number: 222
Name: venn
Balance: 2500
Account Number: 333
Name: ken
Balance: 4000
```

```
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 5
Take care, have a pleasant day
```

Wrong Option Output Result

Enter Account Number: 1
Enter Name: s
Enter Balance: 1000
Enter Account Number: 2
Enter Name: t
Enter Balance: 2000
Enter Account Number: 3
Enter Name: u
Enter Balance: 3000
1:Display All
2:By Account No

3:Deposit
4:Withdraw
5:Exit
Please input your choice: 6
Wrong Option, Please Try Again

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 3
Account Number To Deposit Amount? 444
Record Didn't Found

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 3
Account Number To Deposit Amount? 222
Record Didn't Found

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 2
Account Number? 1
Account Number: 1
Name: s
Balance: 1000

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit

Please input your choice: 3
Account Number To Deposit Amount? 1
Account Number: 1
Name: s
Balance: 1000
Enter Amount you want to deposit? 500
1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit

Please input your choice: 1
Account Number: 1
Name: s
Balance: 1500
Account Number: 2
Name: t
Balance: 2000
Account Number: 3
Name: u
Balance: 3000

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 6
Wrong Option, Please Try Again

1:Display All
2:By Account No
3:Deposit
4:Withdraw
5:Exit
Please input your choice: 5
Take care, have a pleasant day