Assignment-1

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Batch - C

```cpp
#include <iostream>
#include <string>


using namespace std;


class bank_account {
private:

    string name;
    string type;
    int account_no;
    float balance;

public:

    bank_account(string n, string at, int anum, float b) {
        name = n;
        type = at;
        account_no = anum;
        balance = b;
    }


    void display();


    void deposit();


    void withdraw();
};


void bank_account::display() {
    cout << "\n--- Account Details ---" << endl;
    cout << "Name: " << name << endl;
```

```cpp
    cout << "Account Type: " << type << endl;
    cout << "Account Number: " << account_no << endl;
    cout << "Balance: " << balance << endl;
    cout << "----------------------" << endl;
}


void bank_account::deposit() {
    float dep_amt;
    cout << "\nEnter amount to deposit: ";
    cin >> dep_amt;

    if (dep_amt > 0) {
        balance += dep_amt;
        cout << "Deposit successful!" << endl;
    } else {
        cout << "Invalid deposit amount. Please enter a positive value." << endl;
    }
}


void bank_account::withdraw() {
    float withd_amt;
    cout << "\nEnter amount to withdraw: ";
    cin >> withd_amt;


    if (withd_amt > 0 && withd_amt <= balance) {
        balance -= withd_amt;
        cout << "Withdrawal successful!" << endl;
    } else if (withd_amt <= 0) {
        cout << "Invalid withdrawal amount. Please enter a positive value." << endl;
    } else {
        cout << "Insufficient balance. Cannot withdraw" << withd_amt << "." << endl;
    }
}


int main() {
    int choice;


    string name1, acc_type;
    int acc_num;
    float bal;
```

```cpp
cout << "--- Bank Account ---" << endl;
cout << "Enter name: ";

cin.ignore();
getline(cin, name1);

cout << "Enter account type (e.g., Savings, Current): ";
getline(cin, acc_type);

cout << "Enter account number: ";
cin >> acc_num;

cout << "Enter balance: ";
cin >> bal;


bank_account obj2(name1, acc_type, acc_num, bal);


obj2.display();


do {
    cout << "\n--- Bank Menu ---" << endl;
    cout << "1. Display Account Information" << endl;
    cout << "2. Deposit" << endl;
    cout << "3. Withdraw" << endl;
    cout << "4. Exit" << endl;
    cout << "Enter your choice: ";
    cin >> choice;


    switch (choice) {
        case 1: {
            obj2.display();
            break;
        }
        case 2: {
            obj2.deposit();
            obj2.display();
            break;
        }
        case 3: {
            obj2.withdraw();
            obj2.display();
            break;
```

```
        }
        case 4: {
            cout << "Exiting bank application. Goodbye!" << endl;
            break;
        }
        default: {
            cout << "Invalid choice. Please try again." << endl;
            break;
        }
    }
} while (choice != 4);
return 0;
}
```

OUTPUT:-

```
--- Bank Account ---
Enter name: abc
Enter account type (e.g., Savings, Current): savings
Enter account number: 12345
Enter balance: 1200

--- Account Details ---
Name: bc
Account Type: savings
Account Number: 12345
Balance: 1200
-----------------------

--- Bank Menu ---
1. Display Account Information
2. Deposit
3. Withdraw
4. Exit
Enter your choice: 1

--- Account Details ---
Name: bc
Account Type: savings
Account Number: 12345
Balance: 1200
-----------------------
```

--- Bank Menu ---
1. Display Account Information
2. Deposit
3. Withdraw
4. Exit
Enter your choice: 2

Enter amount to deposit: 50
Deposit successful!

--- Account Details ---
Name: bc
Account Type: savings
Account Number: 12345
Balance: 1250

--- Bank Menu ---
1. Display Account Information
2. Deposit
3. Withdraw
4. Exit
Enter your choice: 3

Enter amount to withdraw: 20
Withdrawal successful!

--- Account Details ---
Name: bc
Account Type: savings
Account Number: 12345
Balance: 1230

--- Bank Menu ---
1. Display Account Information
2. Deposit
3. Withdraw
4. Exit
Enter your choice: 4
Exiting bank application. Goodbye!