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// Assignment 1 Solution: Account.h
// Account class interface
//
// Alex (Xiaochen) Dai
// May 8, 2016

class Account
{
public:
    explicit Account(int balance); // Constructor to create an account
    void credit(int amountToAdd); // Deposit money into the account
    void debit(int amountToWithdraw); // Withdraw money from the account
    int getBalance(); // Get the current balance

private:
    int balance; // Data member: the balance of account
};
```

```
// Assignment 1 Solution: Account.cpp
// Account class implementation
//
// Alex (Xiaochen) Dai
// May 8, 2016

#include <iostream>
#include "Account.h"

using namespace std;

// Constructor
Account::Account(int balance)
{
    if (balance >= 0) {
        this->balance = balance;
    } else {
        this->balance = 0;
        cout << "Error: Initial balance cannot be negative.\n" << endl;
    }
}

// Deposit money into the account
void Account::credit(int amountToAdd)
{
    if (amountToAdd >= 0) {
        balance += amountToAdd;
    } else {
        cout << "Error: Credit amount cannot be negative.\n" << endl;
    }
}

// Withdraw money from the account
void Account::debit(int amountToWithdraw)
{
    if (amountToWithdraw < 0) {
        cout << "Error: Debit amount cannot be negative\n" << endl;
    } else if (amountToWithdraw <= balance) {
        balance -= amountToWithdraw;
    } else {
        cout << "Debit amount exceeded account balance.\n" << endl;
    }
}

// get the current amount of balance
int Account::getBalance()
{
    return balance;
}
```

Error: Initial balance cannot be negative.

account1 balance: \$50

account2 balance: \$25

Enter deposit amount for account1: 20

deposit 20 into account1 balance

account1 balance: \$70

account2 balance: \$25

Enter deposit amount for account2: -10

deposit -10 into account2 balance

Error: Credit amount cannot be negative.

account1 balance: \$70

account2 balance: \$25

Enter withdrawal amount for account1: 10

attempting to subtract 10 from account1 balance

account1 balance: \$60

account2 balance: \$25

Enter withdrawal amount for account2: 30

attempting to subtract 30 from account2 balance

Debit amount exceeded account balance.

account1 balance: \$60

account2 balance: \$25