

CS 12 - Lab 6

Classes

In this lab you will use classes. You will also learn how to divide a program up into separate files and write and use a makefile to compile your program. Be sure to include all necessary information at the top of the each file in the program and use good commenting and style throughout your program.

For the rest of the quarter you should be dividing your program into separate files and you must use a makefile.

Define a class called **account** to represent a bank account. Data members should include the depositor's name, account number, and balance. Member functions should include:

- Open an account. Prompt the user for the account name and beginning balance. Set the account number.
- Display the information in the class (the data members) nicely formatted.
- Deposit a given amount into the account. This function should take one parameter, the amount to deposit.
- Withdraw a given amount from the account. This function should take one parameter, the amount to deposit.

Use the following main program to test your code for your class.

```
void main()
{
    // declare a variable of type account
    account Acc;

    // open an account, set the data members to some initial values
    Acc.open();

    // display the data members showing the initial values
    Acc.display();

    char choice;
    double amount;

    // allow customer to make transactions on their account until they
    // choose to quit
    do{
        // show menu of options
        cout << 'd - Make a deposit.\n';
```

```
cout << 'w - Make a withdrawal.\n';
cout << 'q - Quit.\n';
cin >> choice;

// if the customer wants to make a deposit, make deposit and
// show new balance
if (choice == 'd'){
    cout << 'Enter amount of deposit: ';
    cin >> amount;
    Acc.deposit(amount);
    Acc.display();
}

// if the customer wants to make a withdrawal, make withdrawal
// and show new balance
else if (choice == 'w'){
    cout << 'Enter amount of withdrawal: ';
    cin >> amount;
    Acc.withdrawal(amount);
    Acc.display();
}

// point out to the customer if they chose an invalid
// transaction code
else if (choice != 'q')
    cout << 'Invalid option.\n';

}while(choice != 'q');
}
```