



Practical 6 (Week 10)

Task 6.1: Create a class with a static member item so that whenever a new object is created, the total number of objects of the class can be reported.

Task 6.2: Write a trim function that takes an input of string and output the string by trimming away all non-alphabetic letters.

Hint: You may use function `isalpha()` from C library `<ctype.h>`.

Task 6.3: Download the program `06-03.cpp` from vUWS (also see textbook page 282). Convert it into OO-Style by making the following changes on the original code:

1. Change the definitions of `Date` and `CDAccount` from `struct` to `class`.
2. Change all the data members of class `CDAccount` to be `private`. You may do the same to class `Date` but optional.
3. Move the free function `void getDate(Date& theDate)` into class `Date` as a public member function of that class (remove the parameter).
4. Move the free function `void getCDData(CDAccount& theAccount)` into class `CDAccount` as a public member function of that class (also remove the parameter).
5. Change the data member `double balanceAtMaturity` of class `CDAccount` into a public member function `double balanceAtMaturity()` to calculate the balance at maturity (simply move the related code from the main function of the original program to implement the function).
6. Add a new public member function, `printAccount()`, to class `CDAccount` to print the information of a CD account (you may also simply move the related code from the main function of the original code).
7. Make appropriate changes on the whole program to guarantee the new program does the same as the original code.

Background of the original program: *A CD account is a bank account of deposit that does not allow withdrawals for a specified number of months. A CD naturally has three pieces of data associated with it: the account balance, the interest rate for the account, and the term, which is the number of months until maturity.*