CS150-01 Lab 2

Let's Write in C++

Date Assigned: Tuesday, September 7, 2004

Date Due: Tuesday, September 14, 2004

Points: 15

Objectives

The main objective of this assignment is use the software development method to solve a problem.

Problem

At your family reunion in the summer of 2004, all the young children in the family were curious about the ages of other family members. The adults were reluctant to give out their age, but were happy to tell the children the year they were born as most of the children couldn't figure out the adults ages from the year they were born.

Having a few minutes to spare, you decided to write a program to help the children figure out how old a person is or would be that year based on the year they were born.

Steps for software development

1. First, we need to understand the program requirements. What needs to be calculated? Is there any additional information that we need?

2. Next, we need a program analysis. Answering the following questions will help guide you through the process.

    (a) What is the input to your program? What units will it be in?

    (b) What is the output to your program? What units will it be in?

(c) Is there any data that will be internal to your program?

(d) What are the calculations needed for your program?

3. What is the algorithm to solve this problem?

4. Create a new project in Visual Studio .NET. You should name your project "PUNetIdLab2", where PUNetId is your own id. I would name my project "khoj0332Lab2". While working on a project, it should be located on the current computer you are working on (i.e. the desktop). Once you have completed developing, you should copy the project folder onto Turing.

5. Type in the framework code for C++ programs. Remember, this is the code needed by all C++ programs that require input and output.

6. Type in the specific C++ code that will solve this problem. Make sure that you add comments to the code as you type. You will lose points if you do not comment your program.

7. How can you verify that your program works correctly?

What to turn in

When you have completed writing the program and you have verified that it works correctly, you will need to show it to the instructor or the TA.

Once you have done this you will submit the project for grading. You submit your program by placing a copy of the project folder in the "CS150-01 Lab" folder on Turing. Make sure that you also place a copy of the project folder in your own folder on Turing.

To receive full credit for this lab project, your program must be in the "CS150-01 Lab" folder by 8am on Tuesday, September 14.