CS150 Assignment 3

Retirement

Date assigned: Friday, September 30, 2005
Date due: Monday, October 10, 2005
Points: 50

1 Problem

After you graduate and get your first job, you will have some hard choices to make. Many people decide to buy some nice toys like a car, stereo, clothes, ... Others decide not to buy the toys right away and invest in a retirement plan. The purpose of this program is to hopefully help you decide which way you will want to go after graduation.

You are to write a C++ (fully documented) program that will allow the user the ability to input a yearly investment amount, an interest rate, and the number of years that you will continue the investment for. As output, print the Beginning Balance, Interest Earned, Ending Balance, and Year. Your output is to be one of two forms depending on what the user wants to see. Form 1 will print the results every year and form 2 will print the results every 5 years.

As an example, the following is how your program is to work:

```
*****************************************************************
*                      Retirement Calculator                   *
*****************************************************************

Enter your yearly investment: 1000
Enter the fixed interest rate: .08
Enter the number of years until retirement: 40

Enter (1 = Every Year, 5 = Every Five Years): 1

Beginning Balance     Interest Earned     Ending Balance     Year
-----------------     ---------------     --------------     ----
         1000.00               80.00            1080.00        1
         2080.00              166.40            2246.40        2

and so on
```

2 You need to do the following for this assignment

1. **Program Documentation**

For this and all subsequent programs, you are to follow the coding standards in the file c++codingstandards.v1.doc found at the CS150 Web Site.

2. **Program Implementation:**

Write the C++ code and build and run it in Visual Studio .NET. Make sure to include as many comments as necessary. Test the code as much as you can for different values to make sure it works. Remember, if your program does not build or run you will lose 70% of the program points.

3 What to turn in

Place your completed project in the CS150-01 Drop folder by 1pm on Monday, October 10. Your project must be created in Visual Studio .NET. I will not accept any other project. Name your project "03RetirementPUNet". As an example, my project would be called "03Retirementkhoj0332". It is vital that you name your project correctly! Also, turn in a hard copy on the instructor's desk by 1pm on the date in which the assignment is due.

Note: You may only use the C++ programming concepts covered thus far in class. Do not use any more advanced concepts that we have not covered or any other programming concepts that you have had experience with.

START EARLY!!