CSCI/CMPE 4341 Topics: Programming in Python
Assignment #4

Instructor: Dr. Xiang Lian
Due Date: See the course Web page

Write a program to calculate future value of periodic investments. Assume you start a retirement savings account with an initial investment and make contribution to it each month until you retire at the age of 65. How much money will you have in the account given *a fixed annual interest rate*? To make the calculations easy, I am asking you to make a deposit every 30 days (do not have to worry about number of days in each month, unless you want to take the time to do it.), and obtain compounded interests monthly. When you do it this way every 6 years you will have an extra deposit (5 days saved up from each year). See the program run in the Appendix. **You can write the Python program for the command-line window (not necessary with GUI)**.

Reference: Compound interest: http://en.wikipedia.org/wiki/Compound_interest

Please submit:

1. Program listing (*.py source code; or the entire package for GUI applications), and
2. The screen captures (as given in the Appendix)

Please submit all files in a compressed *.zip file.

- Your program should begin with a comment section that would include the following:

PROGRAMMERS NAME:_____
STUDENT ID:_____
CLASS:_____ ASSIGNMENT #:_____
DATE DUE:_____ DATE TURNED IN:_____

- Upload the *.zip file you created to the Blackboard. The subject of the submission must include the following information:
  [CSCI 4341] [Assignment #] [Your Name Here] [Your Student ID Here]

Appendix: Examples of Screen Captures

Future value of periodic investment

Input

Initial Deposit	3000.00
Deposit every 30 days	250.00
Rate of Interest per annum	8.5
Age when Account Started	25
Retirement Age	65

Calculate

Exit

```
===============================================================
Age        Beg Balance      Yearly Int        Yearly Dep        Ending Bal
===============================================================
26         0,003,000.00     00,388.16         3,000.00          0,006,388.16
27         0,006,388.16     00,688.71         3,000.00          0,010,076.87
28         0,010,076.87     01,015.92         3,000.00          0,014,092.80
29         0,014,092.80     01,372.16         3,000.00          0,018,464.96
30         0,018,464.96     01,760.00         3,000.00          0,023,224.96
31         0,023,224.96     02,182.24         3,250.00          0,028,657.20
32         0,028,657.20     02,664.12         3,000.00          0,034,321.32
33         0,034,321.32     03,166.56         3,000.00          0,040,487.88
34         0,040,487.88     03,713.57         3,000.00          0,047,201.45
35         0,047,201.45     04,309.11         3,000.00          0,054,510.56
===============================================================
Age        Beg Balance      Yearly Int        Yearly Dep        Ending Bal
===============================================================
36         0,054,510.56     04,957.47         3,000.00          0,062,468.04
37         0,062,468.04     05,663.35         3,250.00          0,071,381.39
38         0,071,381.39     06,454.02         3,000.00          0,080,835.41
39         0,080,835.41     07,292.65         3,000.00          0,091,128.06
40         0,091,128.06     08,205.67         3,000.00          0,102,333.73
41         0,102,333.73     09,199.69         3,000.00          0,114,533.42
42         0,114,533.42     10,281.88         3,000.00          0,127,815.30
43         0,127,815.30     11,460.06         3,250.00          0,142,525.36
44         0,142,525.36     12,764.94         3,000.00          0,158,290.30
45         0,158,290.30     14,163.39         3,000.00          0,175,453.69
===============================================================
Age        Beg Balance      Yearly Int        Yearly Dep        Ending Bal
===============================================================
46         0,175,453.69     15,685.89         3,000.00          0,194,139.58
47         0,194,139.58     17,343.45         3,000.00          0,214,483.03
```