**Homework-5**

**Out Date:** 10/16/2018 (Tuesday)

**Due Date:** 10/21/2018 (Sunday) 11:59PM

**Problem Statement:** Create a **SavingsAccount** class. Use a static data member **annualInterestRate** to store the annual interest rate for each of the savers. Each member of the class contains a private data member **savingsBalance** indicating the amount the saver currently has on deposit. Provide member function **calculateMonthlyInterest** that calculates the monthly interest by multiplying the **savingsBalance** by **annualInterestRate** divided by 12; this interest should be added to **savingsBalance**. Provide a static member function **modifyInterestRate** that sets the static **annualInterestRate** to a new value. **[40 points]**

Write a driver program to test class **SavingsAccount**. Instantiate two different objects of class **SavingsAccount**, **saver1** and **saver2**, with balances of $2000.00 and $3000.00, respectively. Set the **annualInterestRate** to 3 percent. Then calculate the monthly interest and print the new balances for each of the savers **[20 points].** Then set the **annualInterestRate** to 4 percent through **modifyInterestRate**, calculate the next month’s interest and print the new balances for each of the savers. **[20 points]**

**Scoring Distribution [100 points]**

* 80 points for implementing the above mentioned requirements.
* 10 points for appropriate comments
* 10 points for programing style

**Blackboard Submission**

1. Submit the file
   1. Class definition file
   2. Class implementation file
   3. Driver program file (one with the main function)
2. Zip the files
3. Upload the zip file to Blackboard