**Home Assignment – 3  
Total: 100 points  
Due Date: 10/3 (Wednesday), 11.59 pm**

This assignment is based on topics covered in Chapter 3.

1. **End of Chapter – 3 exercises**

***3.19.2 Reading and Understand Code***

#15, #20, #21, #23 (3 points each = 15 points)

***3.19.3 Fill in the Code***

#29, #30, #32, #33 (4 points each = 16 points)

***3.19.5 Debugging Areas – Using Messages from the Java Compiler and Java JVM***

#44, #47, #49 (3 points each = 9 points)

1. **Program – I: Using *Point* class of the java library’s *awt* package *(30 points)***Write a program that reads from the java console the (x, y) coordinates for two points in the plane. You can assume that all numbers are integers. Using the *Point* class from java library’s *awt* package, instantiate two *Point* objects with your input data. Do the following steps in the program.
   1. Call the toString( ) method to display the string representation of the data contained in the two Point objects created earlier
   2. Call the translate( ) method to translate the first point by 5 units on the x-axis and 10 units on the y-axis
   3. Call the move( ) method to move the second point to the location (15, 20) on x-axis and y-axis respectively on coordinate plane.
   4. Call the toString( ) method to display the string representation of the data contained in the two Point objects.

***Hint: You would need to look up the API of the Point class in the java library by doing an Internet search on Java 8 APIs. Note that this class belongs to the awt package.***

1. **Program – II: Work on Programming Project (3.19.7) exercise # 63 (30 points).**

**You will run the program for the following values of the interest rate:**

* Investment for $100,000 and annual interest rate of 7.5%
* Investment for $250,000 and annual interest rate of 5.75%

*The output needs to be verbose and apply the right formatting to the currency values you display. Provide a program description at the top and comment your code appropriately.*

**To turn in your assignment**

* Open a Microsoft Word document name using the same file naming convention below
  + Home02-LnameFM
    - Home03 = assignment prefix
    - Lname = your last name
    - F = your first initial
    - M = your second initial
* **Type your name at the top of the document.**
* Type in the answers to the questions in the assignment.
* Copy & paste the source code and output *of one run of the program I* into your Word document.
* Copy & paste the screen shot of NetBeans of Program I in the word document.
* Copy & paste the source code and output of *two runs of the programs with the values specified* for program - II into your Word document.
  + Use the Ctrl-A command to make sure that you get all of the source code.
* Copy and paste the screen shot of NetBeans for the *two runs of the programs with the values specified* for program – II.
* Create an Export file of your project.
  + In the NetBeans IDE select File -> Export Project -> ToZip
    - Build Zip: Please remember you would need to browse and up the location where you want to save the zipped folder.
    - Note that you will also need to type in the zip extension.
* **On Blackboard submit both your World document and your project zip file.**