GEDİZUNIVERSITY

Faculty of Engineering and Architecture

Computer Engineering Department

COM 102 – OBJECT ORIENTED PROGRAMMING
POSTLAB #4

Academic Year: Spring 2016
Due Date and Hour: April 4, 2016 - Monday , 11.59pm (Submission)
Course Instructor: Assoc. Prof. Dr. I.Furkan INCE
Course Assistant: Res. Asst. Arzum KARATAŞ & Res. Asst. Feyza GALİP

1- Create a Java Program (45 points)

Write a class named "Wumpus". Your class knows about its *position*.**(2 points)** Also, your class has following abilities:

- Move right by "x" steps (x is a parameter) . **(3 points)**
- Move left by "x" steps (x is a parameter) . **(3 points)**
- Move upward by "x" steps (x is a parameter) . **(3 points)**
- Move downward by "x" steps (x is a parameter). **(3 points)**
- Move on 2-D space by "x" and "y" steps (x and y are a parameter). **(3 points)**
- Move on 2-D space by random steps with interval of (-10,+10) **(8 points)**
- Show its location . **(3 points)**
- Return String representation of itself. **(2 points)**

Then, write a test application to show Wumpus class' whole ability. **(10 points)**

*Please, before coding, draw a UML class diagram for the classes. **(5 points)**
* **Hint :** Use Position class!!

2- Create a Java Program (**55 points**)

Write a class named MovieRater. Your class knows about *movie rates***(5 points)**. Movie rates are hold in a table like below. For this time, you do not have to care about the movie names and reviewer names.

		movie			
		0	1	2	3
reviewer	0	4	6	2	5
	1	7	9	4	8
	2	6	9	3	7

Also, your class has the following abilities:

- Setting and getting movie rates as a whole **(5 points)**.

- Finding the average rating given by the reviewer in a specified row as a parameter
  (Ex: Find and print the average rating given by the 2nd reviewer) **(10 points)**

- Finding the average rating for the movie specified as a parameter
  (Ex : Find and print the average rating for 3rd movie) **(10 points)**

- Counting the number of ratings above the value of the parameter
  (Ex: How many times films take ratings above 7 ?) **(10 points)**

Then, write a test application to show MovieRater class' whole ability. **(10 points)**

*Please, before coding, draw a UML class diagram for the classes. **(5 points)**

NOTES & SUBMISSION RULES :

1. You are **required to add comment properly**.(It will be graded)

2. You are **strongly advised** to obey the good programming practices (like naming conventions, indentations, commenting your codes and so on.) Using good programming practices is graded.

3. You are **required** to send your source code within a zipped file named :
   COM102_ StudentNumber_YourName_PostLabX.zip
   (e.g., COM102_011XXXX_ArzumKarataş_PostLab4.zip
        COM102_011XXXX_FeyzaGalip_PostLab4.zip)

4. **Be sure whether you attached your work to the e-mail or not**, because it is your responsibility to sending the work on time and in proper format.

5. You are required to **work alone**. Teamwork is **NOT** allowed and **cheating is strictly punished**!

6. You should **submit** your homework to the address following by **e-mail** on time.
   (to com102.2016gediz@gmail.com)

7. **Late submissions** will be graded by using the formula **100 - 10*d^2** where **d** is the number of **late** submission **days**.