

Java Assignment4

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1 Subjects of examination

In this assignment your knowledge on the following subjects will be tested:

1. OOP
2. Setters and getters.
3. Constructors.
4. Methods
5. **Documentation**

2 Grading

You need to code in **Netbeans**. The **folder** which contains the code has to be zipped and then uploaded in Omnivox. So if your code is stored at Documents/NetBeans/Assignment2 make sure you are zipping/compressing the entire folder **assignment 2**. **No other format will be marked.**

Your code has to run without errors. Meaning that in order to obtain a **full mark** on each question, you need to make sure your code runs without errors.

If the code corresponding to **none** of the questions runs properly and all of them have compile time errors, your assignment will be marked to **zero**. So please comment the part with errors and just upload the correct version.

Note: separate the answer of each one of your questions is the code section with a comment. Example:

```
//q1 .....  
Code for q1  
//q2  
Code for q2
```

Don't forget to clean your code, write comments and **respect indentations**. **Each block of your code needs to have a proper documentation you will lose 5 points per each missing doc**

You need to Zip the code that you will send.

3 Instructions

You need to deliver **one project** consisting of **only** one main class and three other classes stated below. For each of the classes you create you need to use the constructor to set its attributes. Your classes have to have setters and getters and their attributes should all be private.

4 Implement the following (50 with respect to what was written above)

1. Create a class University
2. Create a class Department
3. Create a class Student

5 Department

This class has three attributes:

1. Dep_Name(string)
2. Dep_ID(int)

6 University

A university has the following attributes.

1. A university name (string)
2. A university population (int)
3. A university budget(double)

7 Students

A student has the following attributes.

1. An ID(int)
2. A Name(string)
3. A DEP_ID(int)

8 Order 30 points

1. In the main class first Create three departments. Ask the user to input the field values.
2. In the main class create 5 students. Ask the user to input the field values.
3. Write a function in the main class that takes two integers as input and Checks if they are equal. Use that function to check if for a department and a student their DEP_ID is equal. (So you have to check if dep1.di=student1.id for example).
4. Create a university in the main again.(Initialize it the way you like).**DO NOT ASK THE USER HAVE THEM DEFINED YOUR SELF SO NO SCANNER**

9 String operations 20 points

1. In the main class ask the user to input a string. Then until you have reached the end of the string iterate on each char and replace each char at location i (the location you are at in that iteration) with the following: If the location was an even location replace it with the lowercase version of the char and if it was odd replace it with its upper case. Example:
heLlo: hELLo.

Good luck