

## Fall 2022– CS203 Object Oriented Programming Homework – 4-

**Deadline: 11/06/2022 Sunday 11:59 pm**

**You can work on this homework alone or with a friend (teams up to two members)**

### Objectives:

- JAVA OOP Practice
- Read file, create functions, use arrays in Java
- Use OOP

In this homework, you will create a java program to read the `student_dataset.csv` file and find the answers for the following questions [20 points each];

- 1) How many advisors do we have? Display their names.
- 2) What is the full information of the students whose GPA is less than 2.75?
- 3) What are the average credit hours of the college?
- 4) What is the average GPA of the students whose department is Computer Science?
- 5) Display the list of departments along with the total number of advisors.

For ex:

Computer Science: 7

Biology: 9

....

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- It is your task to decide the most suitable data structures to solve these questions. Do not hard code any information, your code should be able to find these values for any given similar `.csv` file
- You **have to implement** any OOP principles in this homework. (Create the required classes, store each employee record in an object...etc.)

### Homework Submission Instructions

- **Deliverables:**
  - A well written project report (.pdf)
    - Explain your classes, attributes and methods. Explain how you implemented the Inheritance, and benefits of this implementation
    - Put the screenshots of your outputs (the working version of your code)
    - Explain the individual contributions if you have completed the homework with a friend
  - Project.zip file
    - Submit the working version of the whole project file
    - Do not submit only the classes
- Submit your files to Canvas (other submission methods will not be accepted)

*If any of the problem statements is unclear, use the Canvas discussion board to ask for clarifications.*