**1. Create a method that matches sentences like:**

“Superman has 2 suits”

“Batman has 5 cars”

The method displays:

name = Superman

item = suits

count = 2

If the method doesn’t match the string is throws a custom InvalidInputException (extends Exception). You need to have at least a matching and a non-matching example

**2. Create a maven project for the following subject: model the employee - discipline relationship that we have in Endava by creating the corresponding classes for:**

1. Discipline

* name (e.g.: Development, Testing, etc.)
* location (e.g.: ISD, CLD, etc.)

1. Employee

* id (numeric - e.g.: 101)
* name (full name - e.g.: Marin Marinescu)
* discipline (reference to a Discipline object)

Now create a class EmployeeManager having the following method:

public List<Employee> getEmployeesByDiscipline(Discipline disc)

which, as the method name suggests, returns a list with the employees from the given discipline.

NOTE: This method might get called very frequently so make sure that you provide an efficient implementation (iterating through all of the employees at each call is NOT the best option).

\*\*Alternatively you can implement the method using return type Map rather than List

public Map<Integer,Employee> getEmployeesByDiscipline(Discipline disc)

An example of main method populating the classes with data for test:

public static void main(String[] args) {

Employee[] allEmployees = {

new Employee(1, "Alexandra Alexandrescu", new Discipline("Testing", "ISD")),

new Employee(2, "Bogdan Bogdanescu", new Discipline("Development", "ISD")),

new Employee(3, "Constantin Constantinescu", new Discipline("Testing", "CLD")),

new Employee(4, "Dumitru Dumitrescu", new Discipline("Testing", "ISD")),

new Employee(5, "Florina Florescu", new Discipline("Development", "ISD"))};

EmployeeManager employeeManager = new EmployeeManager(allEmployees);

System.out.println(

employeeManager.getEmployeesByDiscipline(new Discipline("Testing", "ISD")));

}

NOTE2: If the time allows, instead of using the System.out.println from above main method use log4j / slf4j, and add it in your maven project.