

T.P. 2

Threads : master-slave

1 Exceptions and lambda-expressions

1. Define a class `Teacher` with 4 fields :
 - `String name`
 - `int age`
 - `int salary`
 - `Discipline discipline` : an enumeration (`Discipline`) for CS, MATH, PHYSICS, CHEMISTRY, ENGLISHAdd constructors, getters and setters. Consider the enum `Discipline` should have a string content corresponding to the discipline (e.g. “CS” for CS).
2. We want to define functionalities for the whole set of teachers defined in the software. Either you define a class that will work as a container (say `TeacherContainer`), or you add to the class `Teacher` a static field (say `staff`). Choose one of the two options and define the following methods (public in the first case, static in the second case). Use streams and lambda-expressions whenever it is possible :
 - methods to add, remove, modify a teacher.
 - method for returning the age being given the name.
 - method for computing the mean of teacher’s ages.
 - method for computing the mean of the salaries of teachers whose ages are between 40 and 60, another method when the discipline is given.
3. Invent teachers and define them as a list of instances of the class `Teacher`. Test your program.