

## TP1 : Technologies web avancées

### I. Maven

#### 1.3 Exercise 01.C: Logging exercise 1

*In the `log4j.properties`, change the level from `INFO` to `DEBUG`, what happens?*

When we change the level from `INFO` to `DEBUG` we can see that as when using `INFO`, we can see the `log.info` message but also the `log.debug` message. When logging through `DEBUG` we are able to receive all the log messages which help the developer when debugging a program.

#### 1.5 Exercise 01.E: Inheritance

*Which `m()` method is called in (1)?*                      (1)        :        `((B)this).m();`

*Is it the expected result?*

*Which OOP implementation type fits to that result? (Virtual function overloading)*

The method called in (1) is the one from the B class. It is the expected result because we ask the object to act as if it was a B class object. The OOP implementation fitting to that result is the polymorphism principle because of the “Class C extends B”.

#### 1.6 Exercise 01.F: `toString()` overloading

*What shows up? Why is the method `toString()` called without being named?*

*If you rename the method `toString()`, what happens?*

We can read :

**C1 => Circle with center (0,0) and radius 5 (Perimter is 31,42)**

The method `toString` is called without being named because all Java objects have a `toString` method which is called when we call the object.

If we rename the method `toString` it will show :

**C1 => ex01F.Circle@9d597e1**

With “ex01F.Circle@9d597e1” being the reference of the object c1 which is given in the default `toString` method.