**2021/2022**

# Software Testing Processes

**Assessment 001 Practical skills assessment (50%)**

***Due date:*** *11/04/2021*

**Learning Outcomes Assessed:**

LO4: Interpret test results for a variety of scenarios

LO5: Model real world constraints and paradigms through domain specific testing methodologies

**Description of the Assessment:**

Implement and test an actual application, for different scenarios.

Application Specifications :

Τhe application will contain a class called “Rectangle”. This class will have 2 variables: rectangle’s length and width. Both length and width should represent floating numbers. Class Rectangle should have tree methods as follows:

* get\_area(): This method will return rectangle’s area according to the formula:

area = width \* length

* get\_perimeter(): This method will return rectangle’s perimeter according to the formula:

perimeter = 2 \* (width + length)

* vertical\_orientation(): This method will return True if rectangle’s width is greater than the length, and False otherwise.

**Questions to answer:**

1. Describe at least three test scenarios that come from the application.
2. In what ways can you test these scenarios and what results do you expect to see?
3. Study the results and say if software quality is guaranteed.
4. Select three scenarios and apply Unit testing.

Try to maximize code coverage with your tests!

**Clarifications:**

Estimated time 3 hours.

The application will be implemented in Python in Spyder or PyCharm as well as the part of Testing.

**Work deliverables:**

A file containing the answers to the questions and the Python files. They will be submitted on the e-learning platform.

**Good luck!**

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