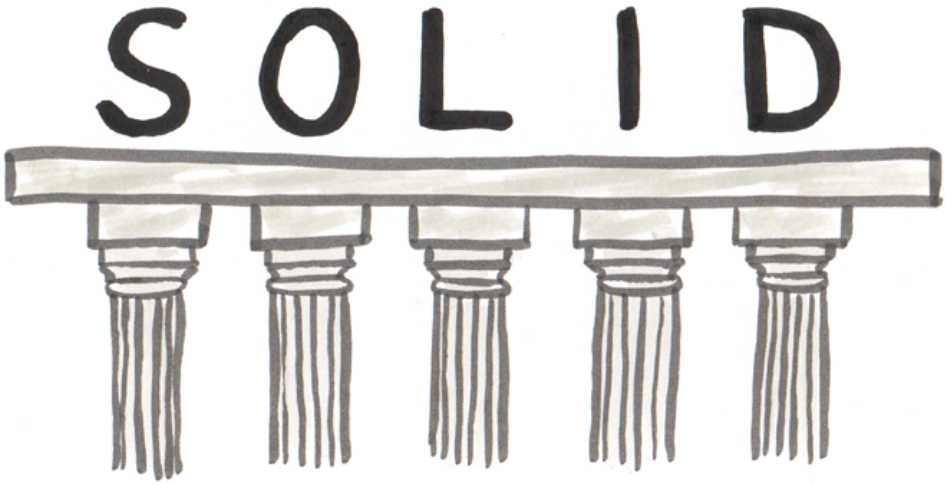
Lab1 - The SOLID principles



Download PDF

Introduction

The SOLID principles are design principles that are used in Object-Oriented software development in order to encourage us to create more maintainable, understandable, and flexible applications. In this workshop, we will iterate through each principle where a given problem has already been addressed. We will analyze the existing solution, identify its shortcomings and then suggest a more SOLID design for it.

Questions

Clone this repository https://github.com/INSATunisia/SOLID locally and go through the examples in the following order:

- SRP (Single Responsibility Principle)
- OCP (Open-Closed Principle)

- LSP (Liskov Substituion Principle)
- ISP (Interface Segregation Principle)
- DIP (Dependency Inversion Principle)

In each directory, you will find an example with its refactored solution (called example_refactored) and an exercice. You need to appl the given principle to the exercice, model it with UML and explain the reasons of your choice.

I invite you to discover PlantUML for designing UML diagrams.

Deliverables

You will need to submit the following deliverables in the Classroom space (the work is done by pairs) :

- A report depicting the design of each example before and after the applied modification, with an explanation of the principle and how did you perform the changes.
- A link of the github repository showing your work.

Last update: 2022-09-21