



Assignment 4

Research Assignment Spring 2021 (2-99-00)

The research assignment is an important part of the PSE course. The list of research topics is given below. Please take note of the following instructions first:

- You should email me your topics of choice – as a prioritized list of **three** topics – **by Friday 18 Tir**.
- Each of the topics is either intended for one student, or a team of two. The number in parentheses shows the default size of the research team for each topic. Students who intend to work alone are allowed to select a team topic, but they should realize that they will be expected to work harder (you will get extra points, however).
- If you'd prefer to work on a topic other than those listed below, you can include it on your list of selected topics; if the title of your proposed topic is not expressive enough, a proper explanation of the topic should also be provided.

The topics will be assigned to individuals/teams **by Saturday 19 Tir**. A research starter package for each of the topics has been made available [here](#); each package contains several resources that are intended to start you off on your research. Please note that you may not need to use all of these resources; on the other hand, you will **definitely** need to complement them with other resources: you should study the list of references at the end of each resource for other potential resources.

1. Project Management Patterns and Antipatterns: Survey and Analysis (2)
2. Patterns for Agent-Oriented Systems: Survey and Analysis (2)
3. Patterns for Self-Adaptive Systems: Survey and Analysis (2)
4. Patterns for Cloud Computing: Survey and Analysis (2)
5. Enterprise Architecture Patterns: Survey and Analysis (2)
6. Web Development Patterns: Survey and Analysis (1)
7. Security Patterns: Survey and Analysis (1)
8. Patterns for Microservice-Based Systems: Survey and Analysis (1)
9. Testing Patterns: Survey and Analysis (1)
10. Design Pattern Mining: Survey and Analysis (1)