IN.5022
Semester Project Concurrent and Distributed Computing

Important dates

14.11.2017	*Group creation, topic proposition & initial validation*
21.11.2017	*Upload short project description to Moodle*
28.11.2017	*Present current state of development, pending issues (5 min per group)*
18.12.2017	*Report due on Moodle (08:00 am)*
19.12.2017	*Oral presentation to the class (usual class hours)*

Goals

With the project, you should:

- deepen your understanding of the fundamentals of concurrent and distributed computing
- be able to analyze the characteristics and constraints of a distributed computing problem and propose an original solution
- successfully implement a distributed algorithm on a realistic distributed environment
- prove your autonomy and initiative in the realization of a distributed computing project and your hindsight in the discussion of its results

Project requirements

The following requirements for the project hold:

- the project should be done in groups of 2
- your project should contain an implementation
- your project should run on the 'teda' environment of the CDC class

You are free to propose your own topic. Please upload a short description of it on Moodle and provide:

- name of the group members
- title of the project
- 4-5 sentences description of the project context and objectives

What you should deliver

- write a report no longer than 10 pages (including cover page, table of contents, bibliography, etc., but excluding appendices). Your report should contain at least the following sections:
    - Problem statement
    - State-of-the-art
    - Presentation of your solution
    - Validation / evaluation of your solution
    - Discussion of results

    - Bibliography
    - In appendix: short documentation of your code (e.g. how to use / deploy) + a **zip file with your code**, all libraries and instructions to run it
- give a 15-minutes oral presentation of your project, including the same elements as the report in summary, and a demonstration

Evaluation criteria

Your project will be evaluated by a jury based on the following criteria:

1. Knowledge and skills: e.g. you understand the basics of concurrent computing, you were able to deploy your program on the teda environment.
2. Systematic & scientific research: e.g. you have done a thorough state-of-the-art or technology review and chosen the best option before moving on to coding, you have presented all the required elements in your report.
3. Initiative, engagement and autonomy: e.g. you have come up with your own original ideas to solve the problems, the volume of work provided is outstanding (counter-example: plagiarism).
4. Quality of results: e.g. results are valuable from a scientific, technical or pedagogical perspective.
5. Presentation of the work: e.g. well written report, dynamic and compelling oral presentation (counter-example: many typos, poor attention to layout and formatting, demonstration not working during oral presentation).

Remarks

The project is **mandatory**. You cannot register for the module exam if you have not done it. The project accounts for 30% of the mark. The remaining 70% is the module exam.

Please also note that, according to the ECTS dotation of the course, it is expected that you spend around 40 hours of personal work on the project.

There will be no course until the day of project presentation. This time is reserved for you to work on the project. We will be available on Tuesdays at the usual class hours in the usual classroom to answer your questions about the project.

14.11.2017

Florian Evéquoz
Laura Rettig
Julia Eigenmann