GLIOT — SYSTEMS ENGINEERING

OR, HOW TO DESIGN COMPLEX SOFTWARE-INTENSIVE SYSTEMS?

ESIR3 IOT, 2020-2021

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Motivation

- Scale to real-world innovative complex systems
- From a software to a system viewpoint
- With a rigorous approach

=> From craft to engineering of software-intensive systems

Objective

- Technical skills
  - Introduction to Systems Engineering
  - Organization of the project management
  - Get the spirit, the overall method, and the vocabulary

- Soft skills
  - Collaborative work
  - Tradeoff analysis
  - Report and argue a design

Organization

- Choose a tool (*Papyrus/Capella*), and explore the resources
- Iterate
  - Design and document your system
  - Refine your stories/tasks
- Define your backlog and your Kanban
- Set up your environment

Timeline

- Wed. Oct. 23rd: Introduction to systems engineering and review of the available resources (on campus)

- Thu. Nov. 19th: Design / refinement of the stories (14h-18h on remote)

- Fri. Dec. 4th: open hours (08h-12h on remote, 14h-18h on campus)

- Fri. Dec. 11th: presentation (14h-16h on campus), and environment setup (16h-18h on campus)

Presentation / Evaluation

- A presentation of 15min (+5min discussion) per group, reporting on:
  - Project introduction (~2pt)
  - Description of the tools and methods for the system design and project management (~3pt)
  - Design of your project (~8pt)
  - User stories and Kanban (~5pt)

+ ~2PT ABOUT THE INVOLVEMENT

- Rules:
  - You may introduce the project, explain/argue the analysis/design and present your Kanban
  - Speech can be in French but the slides must be in English
  - All members of the group may present a part of the presentation, but no more than 1 switch per person

- When?
  - 11/12/20, 14h-16h : presentations
  - 11/12/20, 16h-18h : set up of your overall environment