GLIOT — SYSTEMS ENGINEERING

OR, HOW TO DESIGN COMPLEX SOFTWARE-INTENSIVE SYSTEMS?

ESIR3 IOT, 2022-2023

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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

▸ Oct. 11th and Oct. 17th (4h): Introduction to systems engineering and review of the available resources

▸ Oct. 17th (2h), Nov. 17th (2h), Nov. 28th (4h), Nov. 30th (4h): Design / refinement of the stories

▸ Dec. 5th (4h): presentation, and environment setup

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?

  ▸ 05/12/22 (14h-18h)