INFO-H-400
Medical Information Systems

Projects 2022-2023

The goal of the project is to **analyze a real-world eHealth project** and to **implement a small-scale, proof-of-concept version** of your solution.

Groups & Topics

Groups should include **3-4 students**. You can choose your groups on the Virtual University (see "Group choice" module in the Projects section).

Every group is free to choose a topic. The topic should be a real-world problem related to medical information systems. For inspiration, you can check the eHealth services, architectures and regulations from the Belgian Ministry of Health (in French: https://www.ehealth.fgov.be/ehealthplatform/fr/projets-esante-logiciels), or the European Commission eHealth portal (https://ec.europa.eu/digital-single-market/en/policies/ehealth), or anything else you may find.

Note that you can be creative! You can think as big ("worldwide pandemic monitoring system") or as small ("physical coach app which connects a patient to a trainer with a health plan") as you like. The only requirements are that it should have a practical interest (let's keep things a bit realistic) and it should be related to some of the topics seen in the courses and labs.

What you need to do

- Identify the topic you want to work on.
    - How does it currently work (or doesn't work)? ○ What are the main challenges?
    - How can eHealth technologies help?
- Design a plan for a solution:
    - Think about use cases (who would use your system? How? From where?)
    - Think about architecture (where would the information be stored?)
    - Think about data structure and software structure.
- Propose and implement a small-scale "proof of concept" ○ Find one or few use cases which help illustrate the whole "pipeline"
    - Try to determine the minimal features that would need to be implemented in order to demonstrate your solution.

Evaluation

The projects will be evaluated based on a video presentation/demonstration.

The video should include:

- A short presentation of the problem.
- A schematic/visual representation of the proposed solution.
- An explanation of which features you decided to implement for the proof of concept
- A demonstration of what you implemented.

You should also provide a link to the code (for instance on Github).

How and when to work?

Every group is free to decide how they want to organize their work. I'd strongly advise for using a versioning system such as Git. It will also make it easier for you to share code with me if you need help on something. Online Q&A / "Helpdesk" sessions will be organized during the scheduled project slots, and the LISA computer room will also be available during those times.

While it will probably be easier for you to work in Java (as you may be able to reuse some of the code from the labs), you are free to choose how to implement your proof of concept.

Deadlines

- Make the groups & choose a general topic (which may evolve later): **27/03.**
- Uploading the video: **30/05.**