## **INFO8002** Large-scale database systems

Exercise session IV

## Instructions

For the main question, be ready to:

- Describe the architecture of your solution and its operations.
- Define all its components and their interactions.
- Motivate your design decisions.
- Make diagrams whenever necessary.
- State clearly your choices and assumptions.

## Question 1.

To address the recent issues with the voting software, the Belgian government decided to modernize the ancient (magnetic cards) and centralized vote registration system (interesting thread: [1]). The Belgian Government listed the following requirements:

- only Belgian citizens can vote (no e-id = no vote);
- the voting process needs to be transparent, i.e., votes should be publicly verifiable;
- as the law requires that all citizens need to vote, we also need to be able to identify the citizens that did not vote;
- non-governmental parties should not be able to identify a voter;
- the voter should be notified when his vote has been verified;
- Bryzantine citizens should not be able to influence the election;

with the assumption that,

- a working internet connection is available.

[1] Discussion: https://twitter.com/MisterCh0c/status/1049926988545306624