

# Functional Specification

## 1.Stakeholders

- Franck JEANNIN
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## 2.Project Scope

- For this project, we need to build a device that can listen to conversations (in project rooms for instance) and detect when English is spoken or when French is spoken. The device could emit a sound or display different colors based on the language.

## 3.Target audience

- There is no official target audience. Unofficially, the target audience is all students of the Algosup school. The other target audience is everyone who wants to learn English, or French too.

## 4.Risks & assumptions

- How to collect/produce voice sample with sufficient quality and quantity for the learning process.
- Privacy and confidentiality of the data, how can we be sure that the conversations are not recorded and/or used for something else than detecting languages.

## 5.Solutions

- To collect/produce voice sample:
  - Using the voice of students:
    - Pros:
      - Easy to record
      - Free to record
      - A lot of voices are available
    - Cons:
      - Recording will be slow
      - There may be sounds in the background
  - Using online sources (podcasts, youtube videos or audio books):
    - Pros:
      - Easy to find
      - Easy to download
      - No background sound, only voice
    - Cons:
      - Mostly not free
      - We need many voices, one won't be enough
- To ensure the privacy and confidentiality of data:
  - Host a local server controlled by a single computer
  - Make the box independent, so that it detects the voice but does not record it and does not broadcast it