**CS302L: SE Term Project**

| Team number | 6 |
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| Project Title | Tower of Babble |
| Document | SE Project Concept Document |
| Existing Work | Research papers describing models for both transcription and translation |
| Differences | Self hosting and simplified abstracted free solution |
| Technologies | MERN, Whisper, Fairseq, Docker |
| Customers | Professionals in large companies speaking different languages and transcribe meetings |

**Description**

We propose a solution to the current need for translation and transcription of communications between professionals in organizations that have people who speak different languages (aka multinational companies). Currently, one would have to upload their audio or video to external servers, leading to a potential invasion of privacy. Many existing solutions are also subscription-based, and the methods are black-boxed. We are providing a free, open-source web application that abstracts the backend and can be hosted on the company’s own servers.

**Profile of Users**

Companies who wish for privacy and self-host the website so as to prevent sharing of data to third-party servers are our primary target audience.

We wish to simplify(abstract) the translation and transcription of audio for the end-users.

**Technology Stack**

MERN Stack - The combination of MongoDB, ExpressJS, ReactJS and NodeJS that powers a web full stack

Whisper.cpp - Our desired transcription service - provides both speed and accuracy

Fairseq - Our translation model - built for non-english translation

Docker - Provides the abstractions and dependency resolution to allow the project to run smoothly