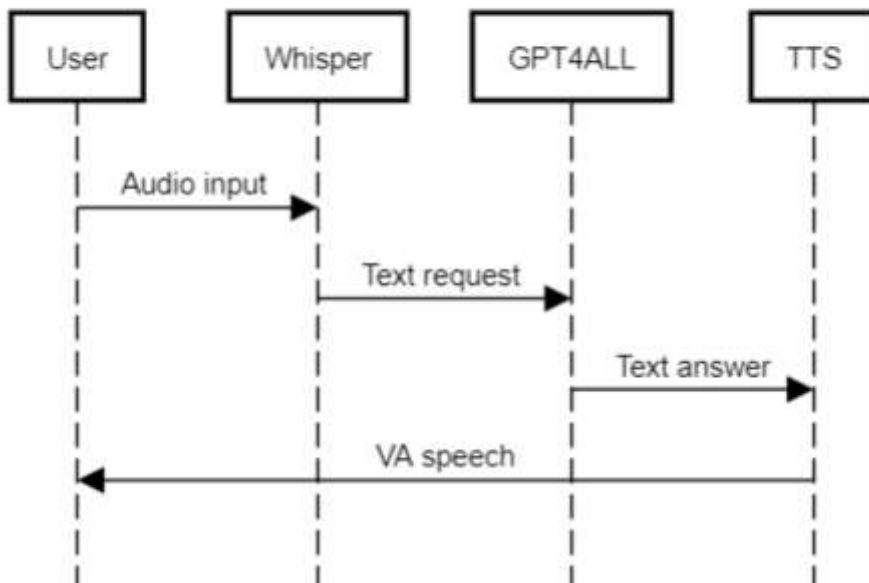


Sequence Diagram 11062023



ELEMENT	RESPONSIBILITIES	GLOSSARY OF THE MAIN COMPONENTS AND CONCEPTS	TECHNOLOGIES
Whisper <<Speech recognition module>>	Is responsible for detecting speech 'whispers'.	A Python library for creating real-time chat applications.	Python.
GPT4ALL <<Question answering module>>	Providing 'conversational AI platform' by means of question answering, language translation and text classification.	<p>GPT4ALL, an offline model was used. It needs to be noted that the accuracy of this model dropped significantly, as it is smaller than HuggingFace, trained on less data and did not receive any human-in-the-loop training. Additionally, it uses 4Gb on ram compared to 140Gb on GPUs, thus response time greatly increases.</p> <p>(The HuggingFace was replaced at last phases. HuggingFace is an opensource software library by definition and is meant to help in natural language processing (NLP). This library was developed by Hugging Face Inc., which is linked to the former FaceBook Inc. The library is very popular, because it provides a variety of open-source tools for building natural language models and chatbots. In addition, this library provides state-of-the-art ML models for various NLP tasks such as question-answering and language translation. The library is compatible with the <i>PYTorch</i> deep learning framework).</p>	Free opensource Python API alternative to ChatGPT.
TTS <<Text-To-Speech module>>	Text-to-speech conversion. Provides human-like speech.	pyttsx3. A Text-To-Speech (TTS) library. Allows applications to convert written text and pre-recorded audio snippets into spoken words. Other popular TTS libraries include Google Text-To-Speech, Amazon Polly, IBM Watson Text to Speech and Microsoft Speech API.	Python.
Coqui Studio	Special audio effects to alternate speech styles. Enables easy to implement speech style improvements by using different speeds and free text prompts.	GUI allowing the free text prompts.	