11/26/24, 3:17 AM diagram (3).svg

UserInterface Represents user input and interaction with system. language: Selected target language. audioFile: Recorded audio file path. audio recording. Shows translated text. translated audio. recordAudio():: Allows displayTranslation(text) : : playAudio(file):: Plays initiates **Backend** Manages workflow and module connections. modules: List of connected Orchestrates audio to audio translation. modules(STT, Translator, TTS):. processAudio(audioFile, language):: controls aggregates controls aggregates controls aggregates Translator TextToSpeech SpeechToText Handles translation Converts text to Converts audio files of the text input. audible speech output. into transcribed text. sourceText: Text to textInput: Text to audioInput: Audio be translated. convert into speech. file for transcription. targetLanguage: Language audioOutput: Path textOutput: Transcribed for translation. to generated audio. English text. translatedText: Generates speech in Processes audio to text. Resulting translated text. the target language. Converts text into target language.

translateText(source, target)::

convertSpeechToText(audio) : :

generateSpeech(text, language)::