# Documentation:

IDE: The project is done on Google collab. Google collab is the preferred ide. Since the ide has different packages installed by default and also a GPU and TPU of its own, the task becomes fast and efficient.

For other ide’s, you’ll need to manually install additional libraries such as Pytorch or tensorflow and tokenizers.

Library Used: Hugging Face’s transformer library is used for Automatic Speech Recognition, Translation and Summarisation.

### Automatic Speech Recognition model:

* For ASR open ai’s whisper-medium is used as the pretrained model from the transformers library.
* Audio file is taken as the input(uploaded from local drive).

### Translation model:

* Transcribed text obtained from the output of the previous model is taken as the input.
* The pretrained model is Helsinki-NLP from the transformers library.
* This is a model of english to german translation: model="Helsinki-NLP/opus-mt-en-de", where en is English and de is German. You can substitute the languages to your liking.
* The model has different conversions.Supports translation over 50 languages.Some common translations are given below:
  + English to French (en to fr)
  + French to English (fr to en)
  + English to German (en to de)
  + German to English (de to en)
* There are also some indian language translations available:
  + English to Hindi (en to hi)
  + Hindi to English (hi to en)
  + English to Telugu (en to te)
  + Telugu to English (te to en)
  + English to Marathi (en to mr)
  + Marathi to English (mr to en)

### Summarization model:

* The Output from the Translation model is taken as input here.
* The pretrained model is facebook/bart-large-cnn from the transformers library.
* The length of the summarisation can be provided as argument(example: max\_length=80, min\_length=10, you can change the range to the value needed).