

# LiveLearnNoter

## An Automated Note Maker

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# Objective

- Build a machine learning model as a learning project.
- Use a speech recognition model.
- Summarize the transcription.

# Speech-to-Text

- Whisper is a pre-trained transformer-based model for speech recognition from OpenAI. It is pre-trained on a vast quantity of labelled audio-transcription data, 680,000 hours to be precise.
- Nearly 3% word error rate (WER) on the test-clean subset of LibriSpeech pipe 4.7% WER on TED-LIUM.

# Two methods of Summarization

- Extractive
- Abstractive

# Extractive Summarization

- Count-based techniques like CountVectorizer, TF-IDF Vectorizer
- Pretrained word embeddings like Word2Vec, Glove
- Pretrained transformers like BERT (or its variants)

# Abstractive Summarization

- Recurrent Neural Networks and Long Short Term Memory cells are types of neural network architectures commonly used for sequence-to-sequence tasks.
- The input is tokenised and is passed through an LSTM encoder.
- Final hidden state of LSTM encoder captures the context of the text given.

Thank you for your time! We are open to your feedback and suggestions.