**Introduction**

This project aimed to develop a system that can take an audio file, convert it into text, analyze the feelings in it, and find out what topics are discussed in the audio. The topic for this project was chosen to be an audio file titled "Organs of the Human Body," which describes different organs, their locations, and what they do.

**Methodology**

Project used Python with Flask for the back end. User can upload an audio file. The system then writes down what is said, checks the feelings, and looks at the main topics.

**1.Audio Transcription :** The audio that was uploaded was run through a speech recognition Python library to convert it to text. To ensure compatibility with most scripts, it'd be converted to the WAV format. This transcription allowed us to analyze the spoken content in text form.

**2. Emotion Research :** Next, I performed sentiment analysis using a model obtained from Hugging Face. It labelled the sentiment of the transcription as NEGATIVE with a very high confidence score of 0.98. This was quite surprising, as the content was neutral. However, some words in the text, like "waste" or "deoxygenated," might have affected this rating.

**3. Topic Modelling :** Topic modelling was done using LDA from scikit-learn. It helps us understand what the major themes or topics are by looking at words that have a high usage rate.The most frequent themes met with are blood, body, and intestine.

**Results**

Here’s what the system produced(Output):

A screenshot of a computer

Description automatically generated

• **Sentiment Analysis:** The content was mostly informative and descriptive, though it was classified as NEGATIVE through sentiment analysis. This could be due to specific words flagged by the model, even if they aren’t negative in context.

• **Topics Identified :**

**Topic 1: "body blood intestine"**This topic focuses on bodily functions and processes, particularly the circulatory system and the digestive system.

**Topic 2: "exhaling example work"**Process of exhaling and how breathing works as part of the body's essential functions.

**Conclusion**

This project taught me how to take the audio, change it into text, check its feelings, and find important topics. Though the sentiment model may not fully understand scientific content yet, but the topic model worked well in finding key themes. This can be helpful in education or the analysis of a content area.