# ***Text Summarizer NLP App***

A simple Python GUI application that summarizes long pieces of text using a pre-trained NLP model (facebook/bart-large-cnn) and can also read the summary out loud using text-to-speech.

## ***Features***

* Summarizes input text using Hugging Face's transformers library.
* Text-to-speech feature to read the summary aloud.
* Intuitive GUI built with Tkinter.

## ***Getting Started***

### Prerequisites

Make sure you have **Python 3.7+** installed. Then, install the required libraries using pip:

* pip install torch torchvision torchaudio --index-url <https://download.pytorch.org/whl/cpu>
* pip install transformers
* pip install pyttsx3

**Note:** torch is required by the transformers library.

### File Structure

Place the provided .py file in your working directory.

## How to Run

Open your terminal or command prompt and run:

python your\_file\_name.py

Replace your\_file\_name.py with the actual name of the Python file.

## ***How to Use***

* launch the app — a GUI window will open.
* Paste or type the text you want to summarize in the **"Enter Text"** area.
* Click the **"Summarize"** button.
* The summary will appear in the **"Summary"** section.
* Click **"Speak Summary"** to hear the summary read aloud.

## Model Used

* **facebook/bart-large-cnn** from Hugging Face's transformers library.
* The model performs extractive summarization and is suitable for news articles and general long texts.

**Notes**

* The app may take a few seconds to generate a summary, depending on text length and your system.
* Ensure you have a working microphone and speaker for the TTS (text-to-speech) feature to function properly.