# Purpose

The script is designed to perform text-to-speech synthesis using the Tortoise TTS library. It loads a pre-trained model, processes input text, and generates corresponding audio files.

## Dependencies Installation

The script begins by installing or upgrading the necessary Python packages using the *!pip install* command, including:

* scipy
* numpy
* tqdm
* rotary\_embedding\_torch
* transformers==4.29.2
* tokenizers
* inflect
* progressbar
* einops
* unidecode
* librosa
* numba
* ffmpeg

## Data Preparation

* Clone Git repository containing the Tortoise TTS library from GitHub.
* Create a directory for storing voices named "muthu" inside the Tortoise TTS library.
* Copy audio files (\*.wav) to the "muthu" voices directory.
* Copy a text file (mv.txt) to the Tortoise TTS data directory.

## Library Installation

Change the current directory to the Tortoise TTS library directory.

Install the Tortoise TTS library using the python setup.py install command.

## Script Execution

* Import necessary modules and libraries, including argparse, os, torch, and torchaudio.
* Initialize a TextToSpeech object from the Tortoise TTS library.
* Define an output path for storing the generated audio files (results/longform/).
* Specify selected voices for synthesis (e.g., 'muthu').
* Process input text from a file (mv.txt), potentially splitting it using '|' as a delimiter.
* Iterate through selected voices and generate audio for each part of the input text.
* Save individual audio parts and a combined audio file for each selected voice.

## Additional Notes

* The script allows for the regeneration of specific parts of the audio by specifying indices in the regenerate variable.
* Use the Tortoise TTS library's functionality to generate high-quality text-to-speech audio.
* The generated audio files are saved in the specified output directory.

## Usage

The script can be executed to perform text-to-speech synthesis, and the generated audio files will be saved in the specified output directory.

## Important Considerations

Before running the script, ensure that the necessary dependencies are installed and the dataset (audio files and text) is available in the specified locations. Adjust paths and configurations as needed.