Countdown Timer With Playsound

Description

The Countdown Timer with Playsound is a Python-based desktop application that allows users to set, pause, and reset a timer. Once the timer finishes, it plays a specified audio file to notify the user. This project utilizes the Tkinter library for the graphical user interface (GUI) and the playsound library for playing audio files.

Features

- Set Timer: Users can set the timer by selecting hours, minutes, and seconds.
- Pause Timer: Users can pause the timer at any point.
- **Resume Timer:** Users can resume the paused timer.
- Cancel Timer: Users can cancel the timer, which will close the application.
- **Audio Notification:** Plays a specified audio file when the timer reaches zero.

Prerequisites

Before you begin, ensure you have met the following requirements:

- Python 3.x installed on your machine.
- Install the necessary libraries using pip:

pip install playsound==1.2.2
pip install tkinter

Usage

- 1. Run the Python script to start the application:
- 2. Set the desired time using the dropdown menus for hours, minutes, and seconds.
- 3. Click the 'Set' button to configure the timer.
- 4. Use the 'Start' button to begin the countdown.
- 5. Pause the timer using the 'Pause' button if needed.
- 6. Cancel the timer by clicking the 'Cancel' button to exit the application.
- 7. When the timer reaches zero, the specified audio file will play.

Code Overview

• **countdown_timer.py:** The main script containing the Countdown Timer class and the GUI implementation using Tkinter.

Key Components

- **Tkinter GUI:** Provides a user-friendly interface for setting and controlling the timer.
- **Threading:** Ensures the timer runs in the background without freezing the GUI.
- **Multiprocessing:** Plays the audio file in a separate process to avoid blocking the main application.