Keylogger Implementation

1. Introduction

This Keylogger Implementation project is developed for educational and ethical purposes only. It demonstrates the creation of a basic keylogger in Python that records keystrokes and saves them to a log file. The keylogger runs in the background and includes a system tray icon for easy access and termination.

2. Abstract

The keylogger uses the 'pynput' library to capture keystrokes and the 'pystray' library to create a system tray icon. It logs each keystroke to a file named 'key_log.txt' along with a timestamp. The user can terminate the keylogger by pressing the 'ESC' key or by using the tray icon's quit option.

3. Tools Used

- Python 3.x
- pynput
- pystray
- PIL (Pillow)
- threading
- sys
- datetime

4. Steps Involved in Building the Project

1. Initialized a log file with a timestamp.
2. Captured keyboard input using the 'pynput' Listener.
3. Handled different key types (characters, space, enter, tab, etc.).
4. Implemented a system tray icon using 'pystray' for easy access and termination.
5. Ran the keylogger in a separate thread to keep the tray icon responsive.
6. Provided an ethical disclaimer at the beginning of the code.

5. Conclusion

This Keylogger Implementation successfully demonstrates how keystrokes can be recorded in Python with proper safety and ethical measures. The project serves as an educational tool to understand keylogging techniques while ensuring it is not misused in any form.