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Keylogger in Python

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Cybersecurity is the practice of protecting critical systems and sensitive information from digital attacks. Also known as information technology (IT) security, cybersecurity measures are designed to combat threats against networked systems and applications, whether those threats originate from inside or outside of an organization.

Abstract

- → The purpose of this application is to keep tracks on every key that is typed through the keyboard and send it to the admin through the mail server in the time set or given.
- → It provides confidentiality as well as data recovery to all the IT infrastructures in need.



Keylogger is a computer program that records every keystroke made by a computer user, to gain fraudulent access to passwords and other confidential information.

Keylogging is also known as Keystroke logging.

It can also be used to study human-computer interaction.

Existing System

Here the windows app which already exist captures just the key strokes.

Since the application is hidden user is unaware that his actions are monitored.

Example:

Kidlogger, Best Free Keylogger, Windows Keylogger.

Disadvantages in Existing System:

- The keylogging initiator must have physical access to the place/room where the victim's machine is located and be able to go there once to set up the keylogger and once to retrieve it along with the collected data.
- → Activity logs cannot be accessed remotely over the Internet.
- → Cannot start automatically after system reboot
- → They are easily detectable.

Proposed System

The Keylogger will log each typed keystroke and will send the entire log any email address after every specific period of time. We'll be defining the email address and the time interval during programming phase. The program will autostart after system boot-up without any notification and will continue sending logs through emails.

Features

Features of designed keylogger that are implemented and are going to be implemented in this project:

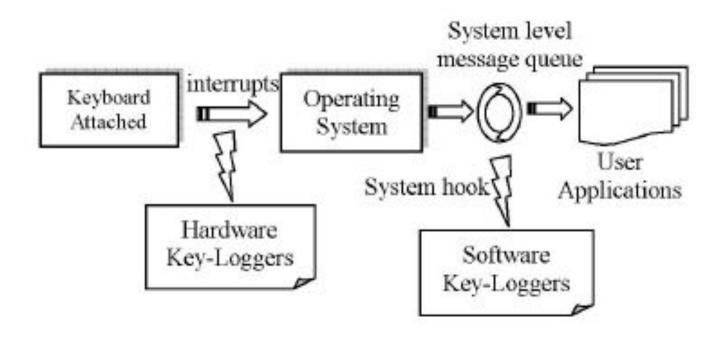
- Keystroke Recording,
- Email Reports,
- Auto Start on Boot,
- Parents Monitor Children Activities,
- Monitor Employee Performance.

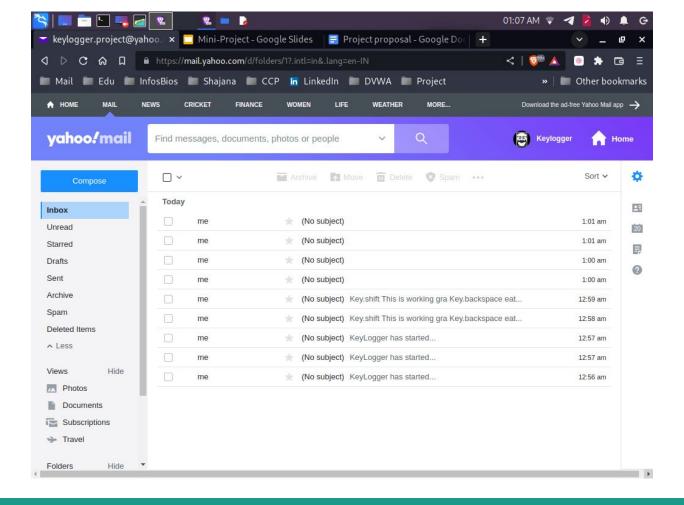
Requirements

- Operating System: Windows
- **☐** Hardware Requirements:
 - ☐ Hard Disk Space: 16 GB
 - ☐ Basic Input Devices: Keyboard
- **□** Software Requirements:
 - ☐ Python 3.10
 - PY2EXE Converter

Modules

- 1. Pynput: This library allows you to control and monitor input devices.
- **2.Threading:** Allows us to run multiple threads (tasks, function calls) at the same time.
- **3.Smtplib**: Defines an SMTP client session that can be used to send mails.
- **4.Subprocess**: Allows you to spawn new processes, connect to their I/O, error pipes, and obtain their return codes.
- **5.Os**: The module provides functions for interacting with the operating system.
- **6.Shutil**: Module offers a number of high-level operations on files and collections of files.
- **7.Sys :** It provides functions and variables which are used to manipulate different parts of the Python Runtime Environment.





Conclusion

• As there always two sides of coin just like this keylogger has good as well as bad reputation.

These are perfectly legal and useful.

• They can be installed by employers to oversee the use of their computers, meaning that the employees have to complete their tasks instead of procrastinating on social media.

Future Work

Some of the possible amendments and improvements in this project are:

- → Adding screenshots of pages visited
 - → Recording of system screen
 - → Full remote cloud monitoring
- → Screenshot of immediately changed pages
 - → Secure web account for data storing
 - → Password Protection

References

https://en.wikipedia.org/wiki/Keystroke logging

https://www.fortinet.com/resources/cyberglossary/what-is-keyloggers