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# KEYLOGGER AND SECURITY

Presented By:

**M.Esakkiammal - Holy Cross Engineering College-CSE**

# OUTLINE

- ☒ Problem Statement
- ☒ Proposed System/Solution
- ☒ System Development Approach
- ☒ Required libraries and software
- ☒ Result
- ☒ Conclusion
- ☒ Future Scope
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# PROBLEM STATEMENT

- ☒ Problem statement : In today's digital age, where cybersecurity threats loom large, one of the significant concerns is the proliferation of keyloggers, stealthy software tools designed to monitor and record keystrokes on a user's computer without their knowledge. Keyloggers pose a severe threat to individuals and organizations as they can capture sensitive information such as passwords, credit card details, and other personal data, leading to identity theft, financial loss, and privacy breaches.

# PROPOSED SOLUTION

- ☒ The proposed system aims to address the challenge of keylogger security system. This involves requirement analysis,. The solution will consist of the following components:
  - ☒ Requirement analysis:
    - ☒ The timing of the email and the email address can be changed later in the settings.
    - ☒ The daily report will be mailed to the PC owner on his/her email.
  - ☒ Keyboard monitoring:
    - ☒ Python 3 library pynput is used for on screen keyboard.
    - ☒ These keystrokes saved in text file will be maintained for 7 days.
  - ☒ Maintaing the log file :
    - ☒ The keylogger will maintain the files containing the keystrokes for a maximum of 7 days.
    - ☒ The program will then automatically delete the past files.
    - ☒ This settings can also be changed later.
  - ☒ Prevention:
    - ☒ Antivirus
    - ☒ Automatic form fillers
    - ☒ On screen Keyboard

# SYSTEM APPROACH

The "System Approach" section outlines the overall strategy and methodology for developing and implementing the keylogger and security system. Here's a suggested structure for this section:

- ☒ System requirements
- ☒ Library required to build the model

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# REQUIRED LIBRARIES & SOFTWARE

`python idle`

`pip install pynput`

`pip install jsonlib`

# RESULT

Attack tactics and social engineering are some of the common ways keyloggers are installed in a malicious scenario. But there is another way this software can find its way to your computer. Imagine a scenario where you make your way to a file-sharing site or software marketplace and choose a software download. While doing so, you get something extra – your software comes bundled with a keylogger. This way, a keylogger can infiltrate your "safe" computer.

```
access.log - Notepad
File Edit Format View Help
2019-07-09 16:06:30,045> New Tab - Google Chrome> Key.caps_lock
2019-07-09 16:06:30,361> New Tab - Google Chrome> 't'
2019-07-09 16:06:30,523> New Tab - Google Chrome> 'h'
2019-07-09 16:06:30,571> New Tab - Google Chrome> 'i'
2019-07-09 16:06:30,750> New Tab - Google Chrome> 's'
2019-07-09 16:06:32,439> New Tab - Google Chrome> Key.space
2019-07-09 16:06:35,576> YouTube - Google Chrome> 'i'
2019-07-09 16:06:35,733> YouTube - Google Chrome> 's'
2019-07-09 16:06:35,813> YouTube - Google Chrome> Key.space
2019-07-09 16:06:36,220> YouTube - Google Chrome> 'a'
2019-07-09 16:06:36,522> YouTube - Google Chrome> Key.space
2019-07-09 16:06:39,713> Facebook - Google Chrome> 'k'
2019-07-09 16:06:39,804> Facebook - Google Chrome> 'e'
2019-07-09 16:06:39,943> Facebook - Google Chrome> 'y'
2019-07-09 16:06:40,129> Facebook - Google Chrome> 'l'
2019-07-09 16:06:40,277> Facebook - Google Chrome> 'o'
2019-07-09 16:06:40,482> Facebook - Google Chrome> 'g'
2019-07-09 16:06:40,585> Facebook - Google Chrome> 'g'
2019-07-09 16:06:40,703> Facebook - Google Chrome> 'e'
2019-07-09 16:06:40,866> Facebook - Google Chrome> 'r'
2019-07-09 16:06:41,306> Facebook - Google Chrome> '.'
```

# CONCLUSION

- ☒ Keyloggers are a potent threat to both individuals and enterprises ,with the potential to cause significant harm if left undetected . Understanding the nature of keyloggers , their methods of infiltration , and the dangers they pose is crucial for maintaining a secure digital environment.



# FUTURE SCOPE

- ☒ The development of more advanced encryption methods to protect against keyloggers. Additionally, there could be advancements in behavioral analysis techniques to detect and prevent keylogging attempts. Some potential areas of focus include developing machine learning algorithms to detect unusual typing patterns, enhancing real-time monitoring systems, and improving user education about the risks and prevention of keyloggers.

# REFERENCES

- ☒ REFERENCES [1] Working of Keyloggers available at <http://securelist.com/analysis/publications/36138/keyloggers-how-theywork-and-how-todetect-them-part-1>. [2] C.a.Rajendra."Keylogger in Cybersecurity Education". Rechester Institute of Technology,Rechester,New York,USA. [3] M. Aslam, R. N. Idrees, M. M. Baig, and M. A.Arshad, "Antihook shield against the software key loggers," in Proceedings of the National Conference of Emerging Technologies,2004. [4] E. S. L. Martignoni, M. Fredrikson, S. Jha, and J. C. Mitchell, "A layered architecture for detecting malicious behaviors,".Heidelberg.2008 [5] C. Y. D. Le, T. Smart, and H. Wang,, "Detecting kernel level keyloggers through dynamic taint analysis," College of William & Mary, Department of Computer Science, illiamsburg,,2008. [6] C. G. S.Ortani, and Crispo."Bait your Hook: A novel Detection technique for keylogger". University of Trento, Via Sommarive.Trento, Italy.2010. [7] S.S.a.Anith.



THANK YOU