KEYLOGGER AND SECURITY

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OUTLINE

- Problem Statement
- Proposed System/Solution
- System Development Approach
- Required libraries and software
- Result
- Conclusion
- Future Scope
- References

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 identify 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

REQUIRED LIBRARIES & SOFTWARE

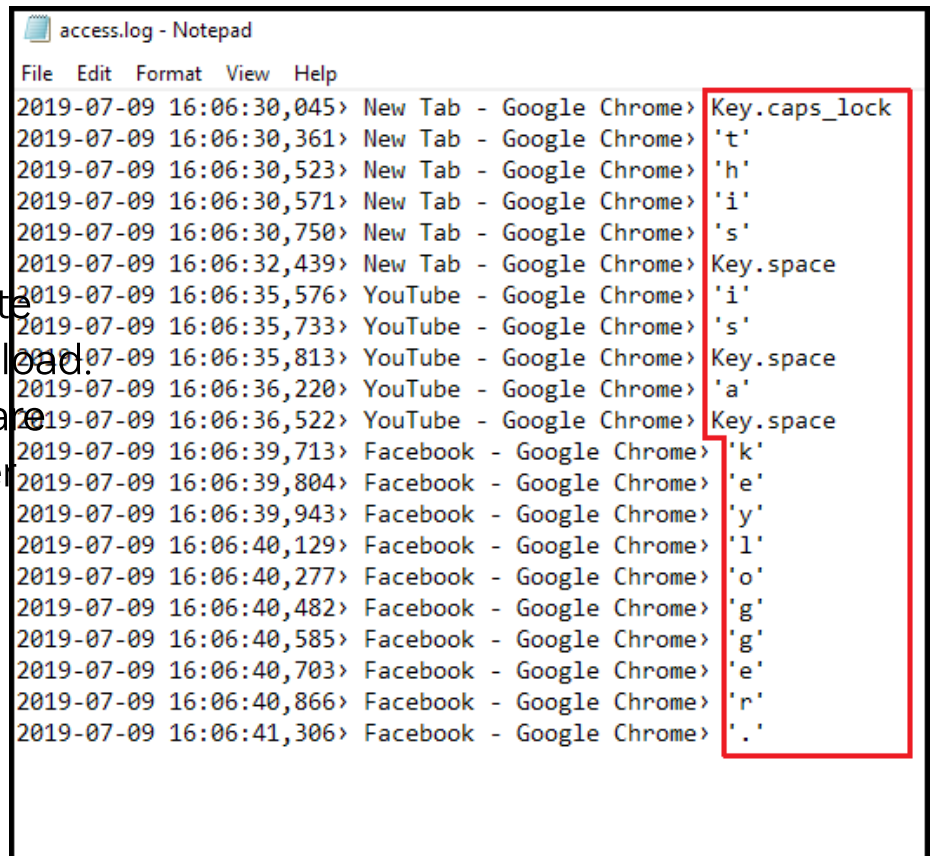
python idle

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.



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.

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