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ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

20AD272- MINI-PROJECT -I

Title: SYSTEM SURVEILLANCE USING KEYLOGGERS

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AGENDA

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ABSTRACT

- Keylogger software can be used to retrieve statistics while working record is broken because of numerous reasons like loss of strength and many others.
- Use of this application is that customers can recollect forgotten email or URL.
- On this keylogger task, whenever the consumer sorts something via the keyboard, the keystrokes are captured and mailed to the mail identity of admin without the understanding of the person in the time set.

INTRODUCTION

- Keyloggers are particularly effective in monitoring ongoing crimes that is a surveillance utility used to track the users which log keystrokes, makes use of log documents to retrieve records, capture a record of all typed keys.
- The accrued records are saved on the machine as a hidden report or emailed to the Admin or the forensic analyst.

LITERATURE REVIEW

Title	Author	Year of Publication	Description
Keyloggers in Cybersecurity Education Christopher Wood https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.600.5731&rep=rep1&type=pdf	Christopher A. Wood and Rajendra K. Raj	2010	This paper provides an overview of keylogger programs, discusses keylogger design, implementation, and usage, and presents effective approaches to detect and prevent keylogging attacks.
Keyloggers for windows using Python https://www.scribd.com/document/489823348/Keylogger-for-Windows-using-Python	Santripty Bhujel, Mrs. N. Priya	2020	This paper completely deals with keyloggers with python used in windows. This thesis tells how to monitor the keystrokes using python.

LITERATURE REVIEW

Title	Author	Year of Publication	Description
<p>Developing Software Primarily Based Key logger and a technique to protect from Unknown Key loggers</p> <p>https://www.ijisme.org/wp-content/uploads/papers/v3i7/G0881063715.pdf</p>	<p>Sivarajeshwaran S Ramya G Priya G</p>	2019	<p>This paper completely deals with the software based keyloggers and keylogging . This paper tells how to prevent the keylogger virus from recording keystrokes.</p>
<p>A Layered Architecture For Detection Malicious Behaviours</p> <p>http://theory.stanford.edu/people/jcm/papers/raid_2008.pdf</p>	<p>Lorenzo Martignoni, Elizabeth Stinson, Matt Fredrikson, Somesh Jha</p>	2008	<p>This paper tells about malicious tools such as keyloggers, proxying, data leaking.</p>

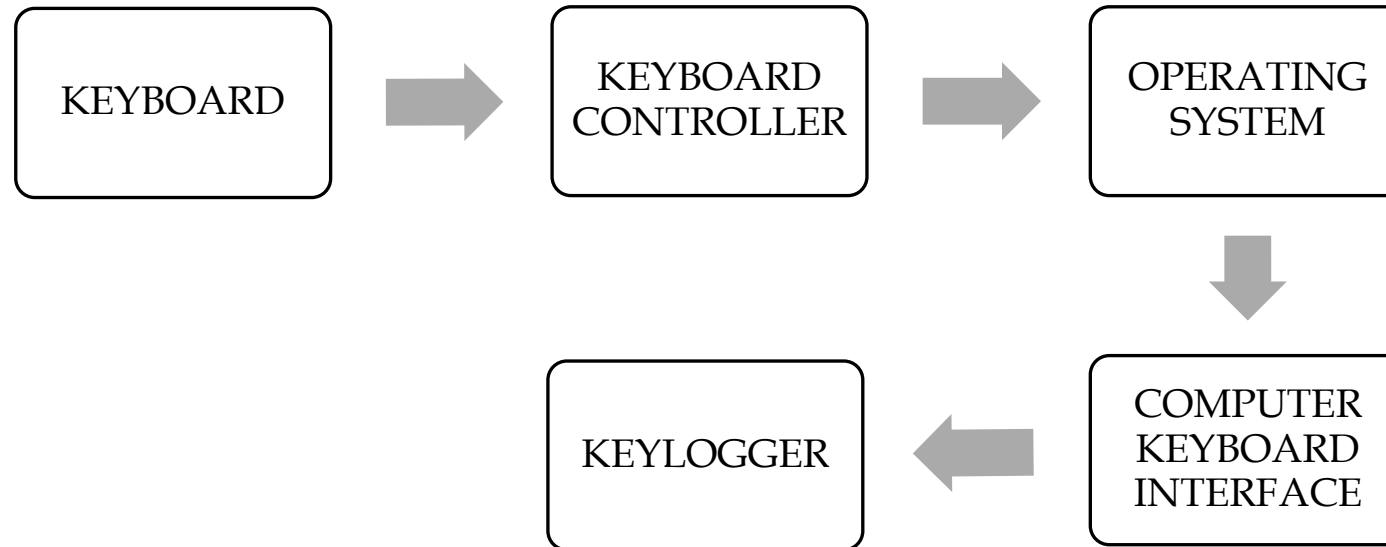
PROBLEM DEFINITION

- Generally, when the system is used by the third party, user will misuse the system and cause damages, to avoid this kind of problem, keyloggers will be used to record keystrokes, screenshots and saving as a hidden file or sending mail to the admin.
- This process uses short time to record the keystrokes and taking screenshots of the immediately changed pages.

OBJECTIVES

- Records the keystrokes.
- Recorded keystrokes will be send to the admin's mail.
- Recorded keystroke will be saved as a hidden file.
- Takes screenshots of the immediately changed pages.
- Each and every recorded file will be encrypted.

BLOCK DIAGRAM



MODULE DESCRIPTION

- MODULE 1 : KEYSTROKES RECORDING
- MODULE 2 : MAIL SENDING AND SAVING FILE
- MODULE 3 : SCREENSHOT SAVING
- MODULE 4 : ENCRYPTION AND DECRYPTION

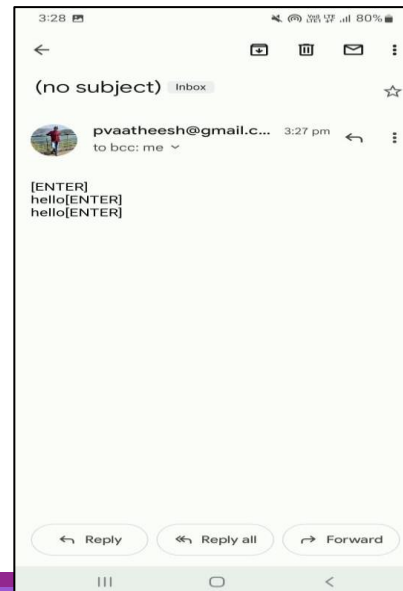
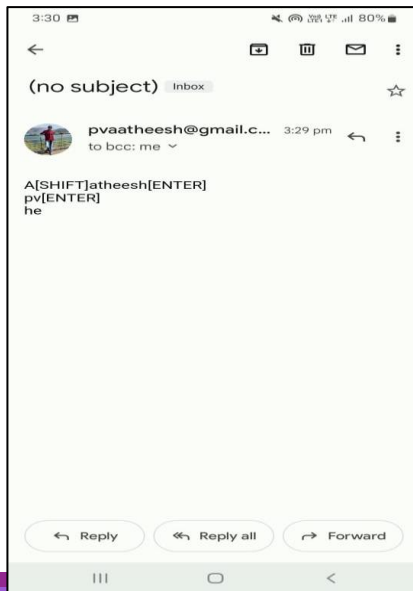
KEYSTROKES RECORDING

- In this module, keyloggers will be recording the keystrokes used by third party
- Using the module 'keyboard' keystrokes can be recorded. The module 'keyboard' is used to deal with the operations related to keyboard.
- This module uses 'Timer' package from 'threading' module and 'datetime' package from 'datetime' module to record the keystrokes with date and time.

```
[+] Saved keylog-2022-05-26-142622_2022-05-26-142637.txt  
[+] Saved keylog-2022-05-26-142637_2022-05-26-142652.txt  
[+] Saved keylog-2022-05-26-142652_2022-05-26-142707.txt  
[+] Saved keylog-2022-05-26-142707_2022-05-26-142722.txt
```

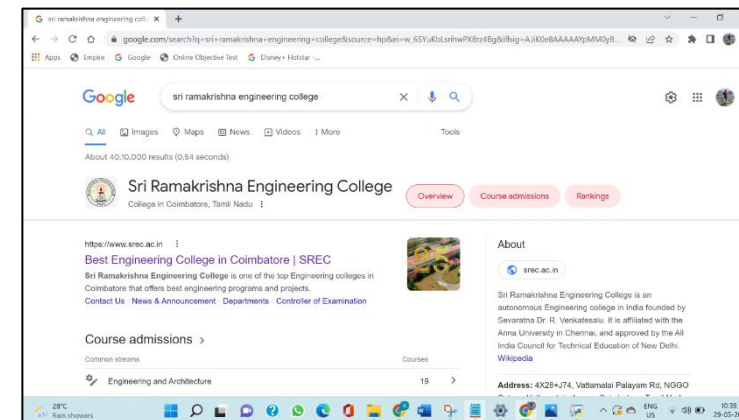
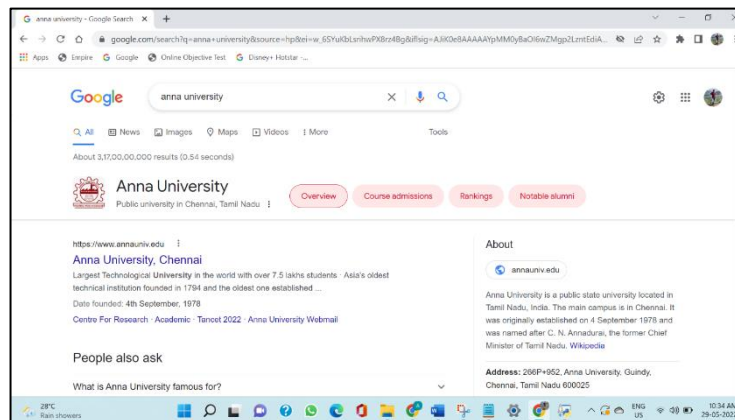
MAIL SENDING AND SAVING FILE

- In this module, the recorded keystrokes will be sent to the admin through the mail.
- This module uses 'smtplib' library to send the mail to the admin.
- This module uses temporary password to send the mail.
- Using the first module, the recorded keystrokes will be saved as an .txt file extension.



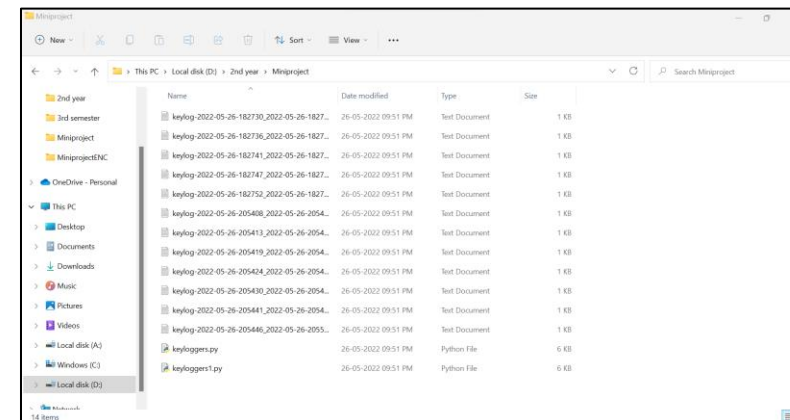
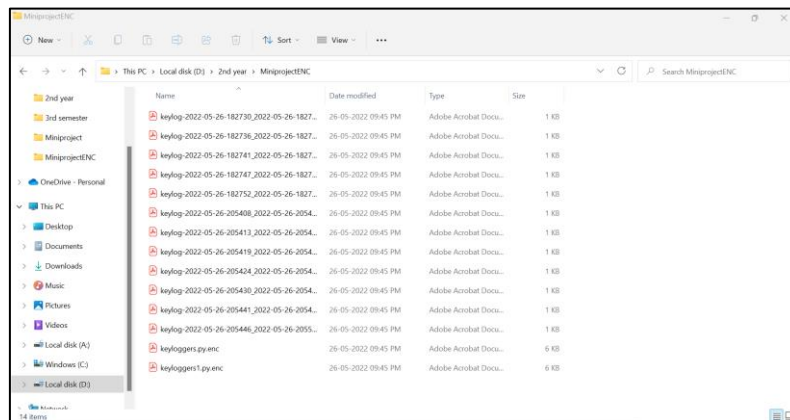
SCREENSHOT SAVING

- In this module screenshots of immediately changed pages will be taken and saved with the present date and time.
- This module uses 'ImageGrab' package from the module 'pyscreenshot' to take the screenshots



ENCRYPTION-DECRYPTION

- In this module, the text files and screenshots will be encrypted.
- This module uses 'os' library to get the path of the folder from the system.
- This module uses 'secret' library to create the random elements to generate the password.
- This module uses 'shutil' library to deal with the operations related to the file.



SOFTWARE REQUIREMENTS

- PYTHON 3.8.0
- JUPYTER NOTEBOOK

RESULTS

- Keyloggers are implemented to record keystrokes performed by the third user. This project saves the recorded keystrokes as a hidden file or send to admin's email ID.
- This project takes the screenshots of the immediately changed pages according to the given schedule of time. Each and every text files, screenshot and related program files will be encrypted with the password.
- User can either choose file method to save the keystrokes as text file or mail to send the recorded keystrokes to the admin's email-ID.

CONCLUSION

- Keyloggers can be used in personal computer for monitoring the system, when the third person uses.
- This keyloggers records keystrokes and send mail to the admin.
- It can also save the keystrokes as a hidden text file.
- This keyloggers takes screenshots for every one minute.

FUTURE SCOPE

- In future, each and every person can check the activities of the third person when they misuse the system. Parents can check the activities of the children while performing in the system.
- In future keyloggers will be used by each and every company to check the activities of the employees performed in the system during work hours.

REFERENCES

1. Anitha, S.S.A. 2011 “Detecting keylogger based on visitor’s analysis with periodic behavior”, PSG College of Technology, Coimbatore, India.
2. Le, C. Y. D., Smart T, and Wang H., 2008, “Detecting Kernel Level Keyloggers Through Dynamic Taint Analysis,” University of William & Mary.
3. Martignoni E. S. L., Fredrikson M, Jha S, and Mitchell J. C., 2008 “A layered Structure for detecting malicious behaviors”. Heidelberg.
4. Rajendra, C.A.. “Keylogger in Cybersecurity education”. Rechester Institute of technology, Rechester, the big apple, United States of America
5. Sagiroglu, S. and Canbek, G., 2009, “Keyloggers” IEEE Technology and Society Mag, Vol. 28, No. 3, pp. 10-17.