

Information security

Project Proposal



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**Title: Key Logger Development**

**Objective:**

To design and implement a functional key logger to research security vulnerabilities, with a focus on ethical use in controlled environments. The project aims to enhance understanding of how key loggers operate and how they can be mitigated.

**Scope:**

1. **Develop Key Logger**: Capture all keyboard inputs while running discreetly in the background, simulating real-world malicious key logger behavior.
2. **Logging & Storage**: Securely log and encrypt keystrokes to local storage or transmit them to a remote server, ensuring confidentiality and safe handling of data.
3. **Ethical Use**: Ensure the key logger is used strictly for educational and research purposes in isolated, controlled environments to avoid misuse or legal issues.
4. **Security Countermeasures**: Demonstrate how security systems detect key loggers and implement basic anti-detection techniques to better understand their evasion methods.

**Deliverables:**

* Fully functional key logger with encrypted data storage.
* Secure logging and remote data transmission.
* Tools for keystroke data analysis and reporting.
* Comprehensive documentation on key logger development, ethical considerations, and detection/mitigation techniques.

**Tools & Technologies:**

* **Programming Languages**: Python.
* **Testing Environment**: Virtual machines, isolated systems