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Automated Network Security Assessment Platform

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Abstract

Automated Network Security Assessment Platform addresses the challenge posed by the rapidly evolving landscape of security risks and vulnerabilities, rendering traditional detection methods ineffective against emerging threats. To confront this issue, we implemented early or semi-early detection of potential attacks and infection possibilities. Additionally, we developed a tool to assess security risks and introduced a preventive methodology through cloud backup, enhancing the encryption process. Moreover, we implemented a mitigation solution through backup restoration. Our solution aimed to enhance security measures by proactively detecting and addressing potential threats before they escalate. By implementing early detection mechanisms and preventive methodologies such as cloud backup with secure encryption processes, we sought to bolster the organization's resilience against cyber threats. The introduction of a mitigation solution through backup restoration further strengthened the organization's ability to recover swiftly from security incidents. As a result of these initiatives, the project achieved an improved security posture by enabling early identification of security risks, enhancing encryption processes through cloud backup, and establishing effective mitigation strategies for rapid recovery. However, it is acknowledged that vulnerabilities and risks in cybersecurity continue to evolve rapidly, indicating the ongoing need for continuous improvement and development in security practices to effectively combat emerging threats and safeguard organizational assets.