## **ABSTRACT**

## IMPLEMENTATION OF JSON WEB TOKEN (JWT) AND TWO FACTOR AUTHENTICATION AS A LOGIN SECURITY PROCESS

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Technological developments continue to increase rapidly and become the main basis for everyday life. The problem occurs to face serious risks of Brute Force attacks, which can threaten data security. To overcome this, the research uses a solution through the application of JSON Web Token (JWT) and Two Factor Authentication (2FA) with One Time Pad (OTP). Where, the application of JSON Web Token (JWT) and Two Factor Authentication (2FA) with One Time Pad (OTP) provides better login security and data protection by means of efficient authentication, two layers of authentication, and keys that are only used once, reducing the risk of unauthorized access and hacking. In addition, the concept of "blackbox testing" is implemented to ensure overall system security. The results of this research show the success of increasing login security and protecting sensitive data, with the successful use of blackbox testing being able to maintain data security and integrity in the operation of the Cat Care System API more effectively.

Keywords: Login Security, JSON Web Token (JWT), Two Factor Authentication (2FA), Blackbox Testing