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#### Introduction

Day 11 covered authentication and common password-based attacks. The session examined how weak authentication practices often serve as an attacker's easiest compromise.

#### Key Concepts Discussed

We analyzed brute force, credential stuffing, and password spraying techniques. Discussions included password storage best practices such as bcrypt, scrypt, and the role of salts and iterations.

#### Lab Preparation in Theory

The class planned safe approaches to testing password strength and account lockout policies without causing denial-of-service to legitimate users.

#### Practical Understanding (Theory)

We covered defense mechanisms: multi-factor authentication (MFA), adaptive threat detection, and how to design authentication flows to reduce attack success.

#### Key Takeaways

Strong hashing, layered authentication, and monitoring substantially raise the cost of password-based attacks.

#### Conclusion

The following day will address encryption fundamentals and secure storage of sensitive material.