Cyber Security Internship – Task 1

Understanding Cyber Security Basics & Attack Surface

Cyber Security focuses on protecting systems, networks, and data from digital attacks. It ensures confidentiality, integrity, and availability of information in the digital world.

CIA Triad

Confidentiality: Prevents unauthorized access to data.
Integrity: Ensures data is not altered improperly.
Availability: Ensures systems are accessible when needed.

Types of Cyber Attackers

Script Kiddies, Insiders, Hacktivists, and Nation-State Actors target systems with different motivations and skill levels.

Attack Surface

An attack surface includes all possible entry points such as web apps, mobile apps, APIs, networks, cloud services, and user devices.

OWASP Top 10 Importance

OWASP Top 10 identifies the most critical web application security risks and helps organizations prioritize security controls.

Typical Data Flow & Attack Points

User → Application → Server → Database → Server → Application → User
Attacks can occur during input validation, authentication, data transmission, server configuration, and database access.

Conclusion

This task builds a strong foundation in cyber security concepts and threat awareness, essential for SOC Analysts and security professionals.