# INFOSOFT IT SOLUTIONS

# **Training | Projects | Placements**

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# **CompTIA Security+**

## Threats, Attacks, and Vulnerabilities

- Types of Malware
  - o Viruses, worms, Trojans, ransomware, spyware, adware
- Common Attack Techniques
  - Social engineering, phishing, shoulder surfing, malware, brute force, zero-day attacks
- Vulnerability Assessment Tools
  - Scanners, sniffers, penetration testing tools

# **Technologies and Tools**

- Networking Concepts
  - OSI model, TCP/IP protocols, ports and protocols, network topologies
- Network Security
  - Firewalls, IDS/IPS, VPNs, proxies, NAC, network segmentation
- Wireless Security
  - Authentication methods, encryption protocols, security configurations

## **Architecture and Design**

# • Secure Network Design

o DMZ, VLANs, NAT, subnetting, zoning

### • Secure Systems Design

 Hardware and firmware security, BIOS/UEFI settings, secure configurations

# Cloud and Virtualization Security

 Virtualization security, cloud deployment models, shared responsibility model

# **Identity and Access Management**

#### Authentication

 Factors (biometric, tokens, certificates), methods (single sign-on, federation)

#### Access Control

o DAC, MAC, RBAC, principle of least privilege, ACLs

# **Risk Management**

#### Risk Assessment

 Threat assessment, vulnerability assessment, risk calculation

# Incident Response

 Incident response process, incident handling procedures, chain of custody

# Cryptography and PKI

# Cryptography Fundamentals

 Symmetric and asymmetric encryption, hashing algorithms, digital signatures

# • Public Key Infrastructure (PKI)

 Certificate authorities, key escrow, key management, trust models

### **Security Operations**

- Security Monitoring
  - Log management, SIEM, anomaly detection
- Incident Response
  - o Incident handling, forensics, chain of custody
- Disaster Recovery and Business Continuity
  - Backup strategies, redundancy, continuity planning

## **Compliance and Legal**

- Legal and Regulatory Requirements
  - Data privacy laws, intellectual property laws, compliance frameworks (GDPR, HIPAA, PCI DSS)
- Security Policies, Procedures, and Awareness
  - Policy development, user training, security awareness programs