# TASK 1 - INTRODUCTION VIDEO

#### Video Link:

https://drive.google.com/file/d/1LJcdHT21ijYohBkvoerCJorcBQhmt9BH/view?usp=drivesdk

# TASK 2 - LEARN CYBER SECURITY BASICS

Task 2 - 10 Important Cybersecurity Concepts (Detailed Explanations). Here are 10 crucial cybersecurity concepts you need to understand:

## 1. Malware (Malicious Software)

Malware is any software intentionally designed to damage, disrupt, or gain unauthorized access to computer systems. Types include:

- Viruses: Self-replicating programs that attach to other files
- Trojans: Disguised as legitimate software but perform malicious actions
- Ransomware: Encrypts files and demands payment for decryption
- Spyware: Secretly monitors and collects user information
- **Prevention**: Use antivirus software, avoid suspicious downloads, keep systems updated

#### 2. Phishing

Fraudulent attempts to obtain sensitive information by impersonating trustworthy entities via email, text, or fake websites.

- Common tactics: Fake login pages, urgent payment requests, lottery scams
- Red flags: Poor grammar, suspicious URLs, urgent language, unexpected attachments
- Prevention: Verify sender identity, check URLs carefully, never click suspicious links

#### 3. Firewalls

Network security systems that monitor and control incoming/outgoing network traffic based on predetermined security rules.

- Types: Hardware firewalls (router-based), Software firewalls (OS-based)
- Function: Acts as a barrier between trusted internal networks and untrusted external networks
- Benefits: Blocks malicious traffic, prevents unauthorized access, monitors data flow

#### 4. Encryption

Process of converting readable data into coded format to prevent unauthorized access.

- **Symmetric encryption**: Same key for encryption and decryption (AES)
- **Asymmetric encryption**: Different keys for encryption/decryption (RSA)
- Applications: HTTPS websites, secure messaging, file protection, VPNs

### 5. Ethical Hacking (White Hat Hacking)

Authorized practice of bypassing system security to identify vulnerabilities and strengthen defenses.

- Purpose: Find security weaknesses before malicious hackers do
- **Methods**: Penetration testing, vulnerability assessments, security audits
- Certifications: CEH (Certified Ethical Hacker), CISSP, OSCP

#### 6. Social Engineering

Psychological manipulation techniques used to trick people into divulging confidential information or performing actions that compromise security.

- Techniques: Pretexting, baiting, quid pro quo, tailgating
- Examples: Fake IT support calls, USB drops in parking lots, impersonation
- **Defense**: Security awareness training, verification procedures, healthy skepticism

#### 7. Two-Factor Authentication (2FA)

Security process requiring two different authentication factors to verify user identity.

- **Factors**: Something you know (password), something you have (phone), something you are (biometric)
- Methods: SMS codes, authenticator apps, hardware tokens, biometrics
- Benefits: Significantly reduces risk of unauthorized access even if passwords are compromised

#### 8. VPN (Virtual Private Network)

Creates secure, encrypted tunnel between your device and VPN server, masking your IP address and location.

- Benefits: Privacy protection, data encryption, bypass geo-restrictions, secure public Wi-Fi usage
- Use cases: Remote work, accessing restricted content, protecting sensitive data
- Considerations: Choose reputable providers, understand logging policies

#### 9. Data Breach

Unauthorized access to confidential, sensitive, or protected information, often resulting in data exposure or theft.

- **Common causes**: Weak passwords, unpatched vulnerabilities, insider threats, phishing
- Impact: Financial loss, identity theft, reputation damage, legal consequences
- **Prevention**: Regular security audits, employee training, incident response plans, data encryption

## 10. Cybersecurity Frameworks

Structured guidelines and best practices for managing cybersecurity risks and implementing security controls.

- NIST Framework: Identify, Protect, Detect, Respond, Recover
- ISO 27001: International standard for information security management
- **Benefits**: Systematic approach, compliance requirements, risk management, continuous improvement

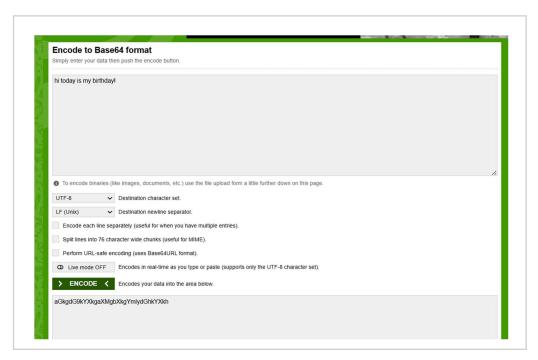
# TASK 3 – BASIC CYBER SECURITY PRACTICES

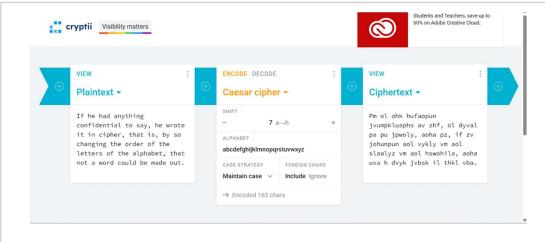
Task 3 - Strong Passwords & Encryption Tools. 5 Strong Passwords (Following Security Rules):

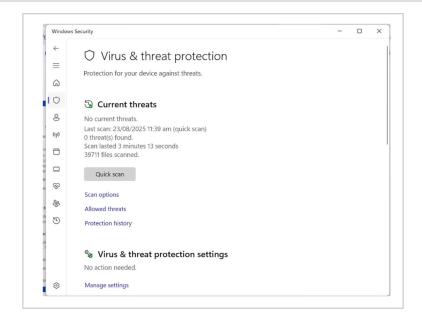
- 1. Tr@il\$ Mountain2024!
- 2. Cyber\security\#2025
- 3. MyP@ssw0rd Strong!
- 4. Secur3\_N3tw0rk@2024
- 5. H@ck3r Pr00f#2025

Encryption/Decryption Websites:

- Base64 Encoding/Decoding: https://www.base64encode.org/
- Caesar Cipher: <a href="https://cryptii.com/pipes/caesar-cipher">https://cryptii.com/pipes/caesar-cipher</a>
- Multi-tool Encryption: https://www.browserling.com/tools/text-encrypt
- AES Encryption: https://aesencryption.net/







# TASK 4 - INTERMEDIATE SECURITY TASK

Task 4 - WHOIS Lookup Report. Recommended WHOIS Lookup Tools:

• Website: <a href="https://who.is/">https://who.is/</a>

• Alternative: <a href="https://www.whois.net/">https://www.whois.net/</a>

**Registrar Information** 

Registrar

HOSTINGER operations, UAB

WHOIS Server whois.hostinger.com

Referral URL

http://www.hostinger.com

**Important Dates** 

Created 2/5/2025

Updated 4/7/2025

Expires

2/5/2026

## 1. Domain Information

Domain Name	youngdevinterns.net
Registrar	HOSTINGER operations, UAB
WHOIS Server	whois.hostinger.com
Referral URL	https://www.hostinger.com
IP Address	147.93.42.193
Creation Date	5 February 2025
Updated Date	7 April 2025
Expiration Date	5 February 2026

## 2. Registrant Information

Name	Domain Admin
Organization	Privacy Protect, LLC (PrivacyProtect.org)
Address	Burlington, MA, US
Phone	+1.8022274003
Email	contact@privacyprotect.org

### 3. Technical Details

Name Server	ns1.dns-parking.com (162.159.24.201)
Name Server	ns2.dns-parking.com (162.159.25.42)
Domain Status	clientTransferProhibited
DNSSEC	Not enabled

# TASK 5 - MINI CYBER SECURITY PROJECT

Task 5 - Password Strength Checker Web Application

GitHub: <a href="https://github.com/umair-aziz025/youngdev-internship-tasks">https://github.com/umair-aziz025/youngdev-internship-tasks</a>