CYBERSECURITY OUTLINE

Week 1 – Intro to Cybersecurity

- CIA Triad, Hacker types, Threats
- **Lab:** Kali Linux, DVWA setup

Week 2 – Networking Basics

- OSI/TCP-IP, IP, ARP, DNS
- **Lab:** Packet Tracer

Week 3 – Ports & Protocols

- TCP/UDP, Common ports
- **Lab:** Wireshark capture

Week 4 – OS Security

- Linux/Windows basics, Permissions
- **Lab:** Linux commands, User management

Week 5 – Cryptography

- Symmetric vs Asymmetric, Hashing
- **Lab:** Encode/decode tools

Week 6 – Malware & Threat Actors

- Viruses, Ransomware, APTs
- **Lab:** VirusTotal, Hybrid Analysis

Week 7 – Web App Security

- OWASP Top 10: SQLi, XSS, CSRF
- **Lab:** DVWA, Juice Shop

Week 8 – Social Engineering

- Phishing, Vishing, Tailgating
- **Lab:** Simulate phishing (GoPhish)

Week 9 – Ethical Hacking Basics

- Hacking phases, Recon & Scanning
- **Lab:** Nmap, Dirb, Nikto

Week 10 – Exploitation Tools

- Metasploit, Password cracking
- **Lab:** Metasploit demo

Week 11 – Blue Teaming

- Firewalls, IDS/IPS, EDR
- **Lab:** Snort or Security Onion

Week 12 – Forensics & Incident Response

- Incident handling, Logs, SIEM
- **Lab:** Analyze logs (ELK or Splunk)

Week 13 – Compliance & Laws

- GDPR, HIPAA, ISO, NIST
- **Task:** Write a security policy

Week 14 – Cloud Security

- AWS basics, IAM, Shared model
- **Lab:** IAM config (simulated)

Week 15 – Final Red vs Blue Project

- Red team (attack) vs Blue team (defend)
- **Lab:** TryHackMe / HTB CTF

Week 16 – Career & Cert Prep

- Roles, Resume tips, Security+ & CEH
- **Task:** Mock interview or showcase

CTF Labs & Platforms

- **TryHackMe** – Free rooms like Intro to Cyber Security, Pre-Security, OWASP Top 10, and beginner CTFs
- **LetsDefend** – Free Blue Team scenarios, SOC Analyst labs, and incident response simulations
- **Hack The Box** – Free "Starting Point" labs and CTF challenges for ethical hacking & pentesting