Nmap Mastery Guide (Day 1–10)

Day 4: Advanced Basics

■ Scan with Decoys (Hide Your IP)

nmap -D RND:10 192.168.1.1

Purpose: Makes your scan appear as if it's coming from multiple IPs instead of just yours.

■ Scan for Vulnerable Services

```
nmap --script=vuln 192.168.1.1
```

Purpose: Automatically detects known vulnerabilities in services running on a target.

■ Timing Template for Speed

```
nmap -T4 192.168.1.1
```

Purpose: Increases scan speed while keeping accuracy.

■ UDP Scan (Often Overlooked)

```
nmap -sU 192.168.1.1
```

Purpose: Finds open UDP ports (services that don't use TCP).

■ Detect Heartbleed Vulnerability

```
nmap -p 443 --script=ssl-heartbleed 192.168.1.1
```

Purpose: Checks if a system is vulnerable to the Heartbleed bug (CVE-2014-0160).

Day 5: Firewall & IDS Evasion

■ Fragment Packets

nmap -f target.com
Purpose: Splits packets into tiny fragments to bypass firewalls and IDS.

■ Custom MTU

nmap -mtu 24 target.com

Purpose: Uses custom packet sizes to evade detection systems.

■ ACK Scan

nmap -sA target.com

Purpose: Maps out firewall rules by sending ACK packets.

Day 6: OS & Version Fingerprinting

■ Detect OS

nmap -0 target.com
Purpose: Identifies the operating system running on a host.

■ Aggressive Version Detection

nmap -sV --version-all target.com
Purpose: Performs deep service version detection on open ports.

Day 7: Stealth Scanning

■ SYN Scan

nmap -sS target.com **Purpose:** Half-open scan that avoids full TCP connections, stealthier against firewalls.

■ Skip Host Discovery

nmap -Pn target.com
Purpose: Scans targets even if ICMP echo requests are blocked.

Day 8: NSE Power Moves

■ HTTP Enumeration

nmap --script=http-enum target.com
Purpose: Enumerates common web applications and directories.

■ Anonymous FTP Login

nmap --script=ftp-anon target.com

Purpose: Checks if anonymous login is enabled on FTP servers.

■ SMB OS Discovery

nmap --script=smb-os-discovery target.com
Purpose: Retrieves Windows OS information via SMB.

Day 9: Bypassing Rate Limits

■ Scan Delay

nmap --scan-delay 1s target.com
Purpose: Slows scan timing to avoid triggering intrusion detection systems.

■ Limit Retries

nmap --max-retries 2 target.com
Purpose: Reduces retries for faster, stealthier scans.

Day 10: Advanced Recon & Hybrid Scans

■ Full TCP & UDP Scan

nmap -sS -sU -p- -A -T4 target.com

Purpose: Comprehensive scan of all ports with version detection, OS detection, and traceroute.

■ Default Scripts + Versions

 $\begin{array}{ll} {\tt nmap\ -sC\ -sV\ target.com} \\ {\tt Purpose:} \ {\tt Runs\ default\ NSE\ scripts\ and\ version\ detection\ for\ quick\ recon.} \end{array}$

■ Scan Multiple Targets

nmap -iL targets.txt

Purpose: Scans a list of hosts provided in a text file.