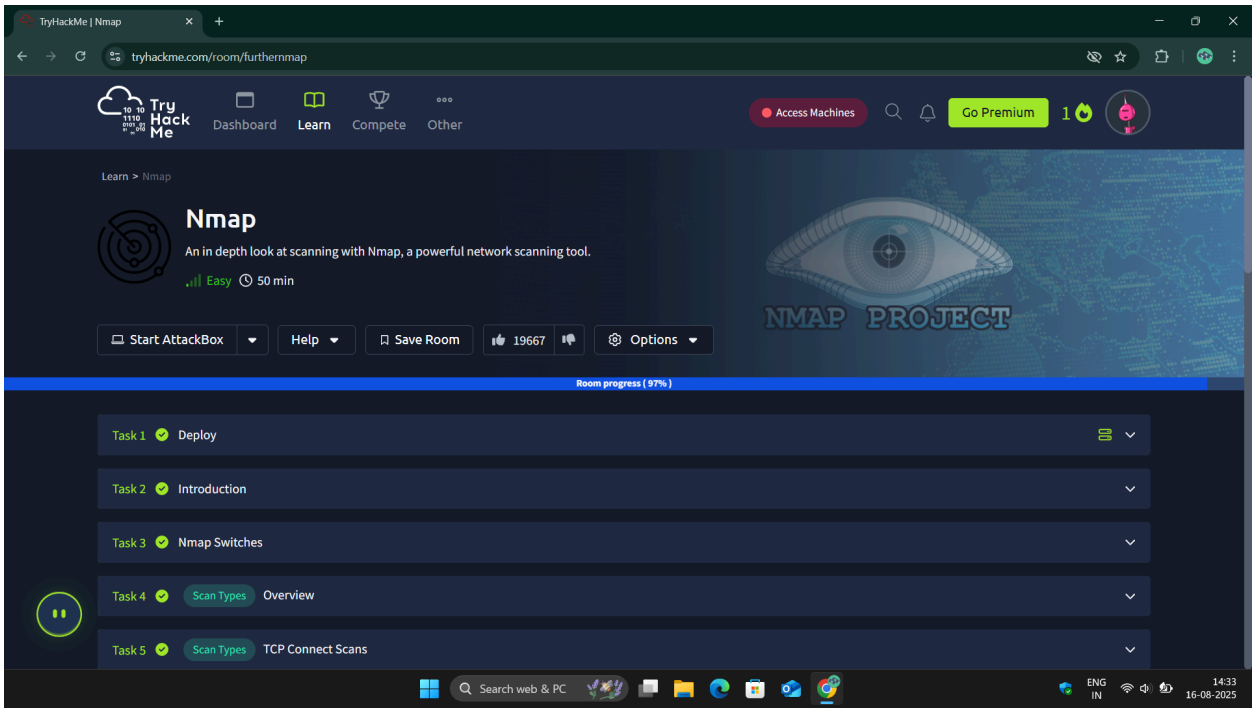
Report: TryHackMe Room – *Further Nmap*

Introduction

This room helped me go beyond the basics of Nmap and understand how it can be used as a powerful reconnaissance tool in cybersecurity. I already had an idea of Nmap's basic usage for scanning ports, but through this room, I learned how to apply it in more advanced ways to gather deeper information about a target system.



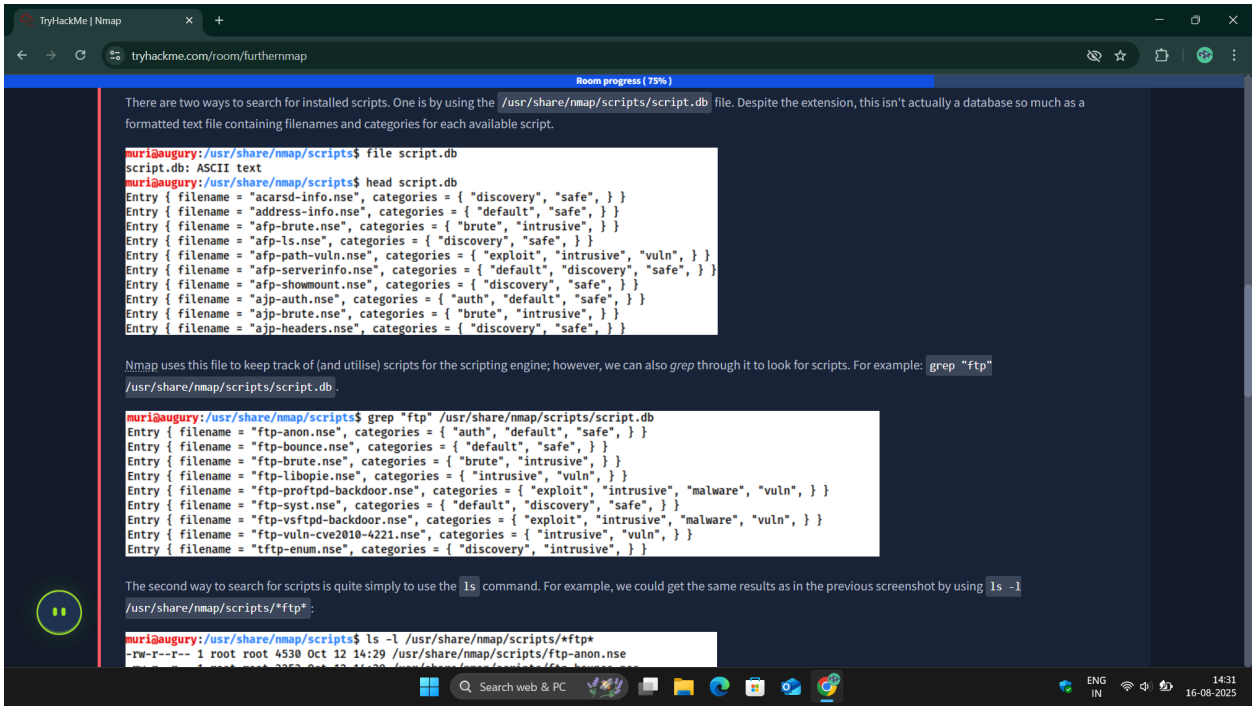
Key Learnings & Understanding

1. **Basic Nmap Usage**

    - I now clearly understand how to run a simple scan on a target to discover open ports.

    - I learned that the default scan checks the top 1000 most common ports and provides a quick overview of a system.

2. **Different Scanning Techniques**
    - I understood the difference between a normal TCP connect scan and a **SYN (stealth) scan**.
    - I learned how SYN scans are faster and less noisy, making them useful when avoiding detection is important.
3. **Service and Version Detection**
    - I discovered that Nmap can not only show open ports but also identify the exact **services and versions** running on them, which is essential for vulnerability assessment.
4. **Aggressive Mode**
    - I understood how the aggressive mode combines multiple features like OS detection, version scanning, and traceroute into one command.
    - I realized that while this gives very detailed information, it is also very noisy and easily detectable.
5. **Nmap Scripting Engine (NSE)**
    - I learned about using scripts to detect vulnerabilities or gather extra details about services.
    - Running scripts such as those in the “vuln” category can quickly highlight possible weaknesses in a system.
6. **Saving Scan Results**
    - I now know how to save results in different formats (normal, grepable, XML), which is very useful for documentation and automation.
7. **Firewall Evasion Concepts**
    - I got introduced to how Nmap can bypass filters and firewalls using options like skipping host discovery, fragmenting packets, or changing source ports.



Conclusion

Before this room, I only understood Nmap as a tool to scan ports. After completing it, I now understand:

- The **different scan types** and when to use them.
- How to gather **detailed information** about services and operating systems.
- The importance of **NSE scripts** for vulnerability scanning.
- How to **save and document results** for reporting.
- Basic techniques to **evade firewalls and IDS**.