

Cybersecurity Internship Assignment Report

Introduction

This report documents my learning experience and outcomes from completing the mandatory TryHackMe labs. The labs helped me build foundational knowledge in cybersecurity, ethical hacking, system security, research techniques, and VPN configurations. Each room was carefully chosen to ensure interns get hands-on experience in these crucial areas.

1. Room Name: Hello World

LINK: <https://tryhackme.com/room/helloworld>

LEARNING OBJECTIVE

The main goal of the "Hello World" room is to introduce new users to the TryHackMe platform. It helps them become familiar with the interface, navigation, and structure of the rooms. It also provides a brief introduction to cybersecurity concepts and explains how to interact with labs and tasks.

KEY TOOLS/COMMANDS USED

- **Web Browser:** Used to access the TryHackMe platform.
- **TryHackMe Dashboard:** Explored the platform's interface and learned how to track progress.
- **Basic Navigation:** Learned how to move between rooms, open tasks, and submit answers.

CONCEPTS LEARNED

1. Platform Overview:

- TryHackMe Structure: A platform for hands-on cybersecurity learning through interactive labs.
- Learning Paths: Structured paths like "Beginner" and "Offensive Security" guide users through learning stages.

2. Room Navigation:

- **Joining Rooms:** Users can explore and join rooms based on interest and skill level.
- **Completing Tasks:** Tasks help users understand how to mark progress and interact with the platform.

3. Cybersecurity Basics:

- **Ethical Hacking:** Introduction to ethical hacking practices and exploring systems for vulnerabilities.
- **Security Principles:** Basic concepts like confidentiality, integrity, and availability (CIA triad).

4. Hands-On Learning:

- **Tool Exploration:** Users get familiar with tools and resources to practice cybersecurity.
- **Introductory Tasks:** Simple tasks to help users understand the platform and its labs.

WALKTHROUGH / HOW YOU SOLVED IT

1. Accessing the Room:

- **Logged In:** I started by logging into the TryHackMe platform using my credentials.
- **Navigated to Room:** I went to the "Hello World" room via the TryHackMe dashboard by clicking on the link provided.

2. Exploring Content:

- **Room Overview:** The room provided an introduction to the platform, explaining its layout and features.
- **Reading Instructions:** I followed the guided steps that explained how to use the dashboard and navigate different sections of the room.

3. Completing Tasks:

- **Task 1 - Platform Overview:** I explored different parts of the TryHackMe platform, such as the Learning Paths, and completed simple challenges to understand how tasks are marked as complete.

- **Task 2 - Basic Cybersecurity Concepts:** I learned key cybersecurity principles such as ethical hacking, the CIA triad, and why they are important in securing systems.

4. Hands-On Practice:

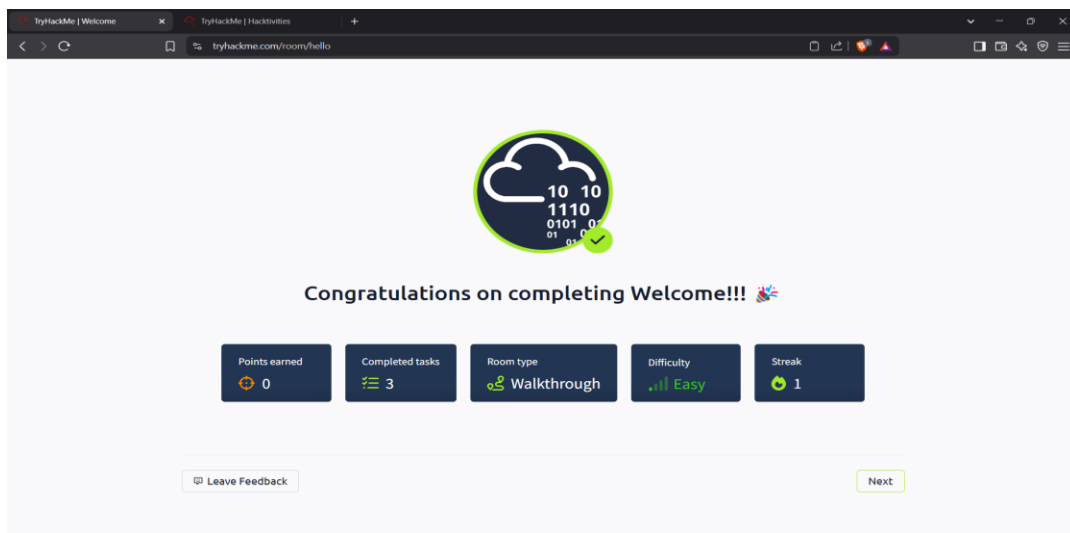
- **Interacting with Tools:** I learned how to use the available tools on TryHackMe to work through labs and practice cybersecurity tasks in a simulated environment.
- **Marking Tasks as Complete:** As I completed tasks, I marked them as done, which helped me keep track of my progress.

5. Final Steps:

- **Completed Room:** After finishing the tasks, I marked the room as completed, which indicated that I had successfully understood the basic concepts and navigation.

REFLECTIONS OR NOTES

- **Excellent Introduction:** The room serves as a perfect starting point for beginners, with simple tasks that build confidence in using the TryHackMe platform and familiarizing oneself with basic cybersecurity concepts.
- **Engaging Learning Experience:** The hands-on approach, interactive tasks, and clear instructions encouraged further exploration, sparking curiosity about advanced cybersecurity topics and ethical hacking.



2. Room Name: How to Use TryHackMe

LINK: <https://tryhackme.com/room/howtousetryhackme>

LEARNING OBJECTIVE

The goal of this room is to help new users understand how the TryHackMe platform works. It teaches how to join rooms, interact with tasks, use virtual machines (VMs), and connect using OpenVPN. It's a step-by-step guide to get comfortable using the platform.

KEY TOOLS/COMMANDS USED

1. **TryHackMe Dashboard:** Used to explore menus like Learn, Practice, and Compete.
2. **Virtual Machines (VMs):** Learned how to start and interact with a machine in a room.
3. **OpenVPN Setup:** Understood how to connect securely to TryHackMe's network using OpenVPN (if not using the AttackBox).

CONCEPTS LEARNED

1. Platform Features

- TryHackMe includes learning paths, challenges, tutorials, and competitions.
- You can earn points and badges by completing tasks.

2. Room Navigation

- Learned how to search for rooms, join them, and move through the tasks inside.
- Understood room types like beginner guides, practical exercises, and challenges.

3. Hands-On Practice

- Practiced launching machines and doing tasks inside the platform's virtual labs.

4. Security Basics

- Learned how to use OpenVPN for a secure connection to TryHackMe labs if needed.

WALKTHROUGH / HOW YOU SOLVED IT

1. Logged In:

- Went to TryHackMe, logged in, and entered the "How to Use TryHackMe" room.

2. Explored the Dashboard:

- Checked out different sections like "Learn" and "Practice."
- Saw different categories of rooms and how to track progress.

3. Completing Tasks:

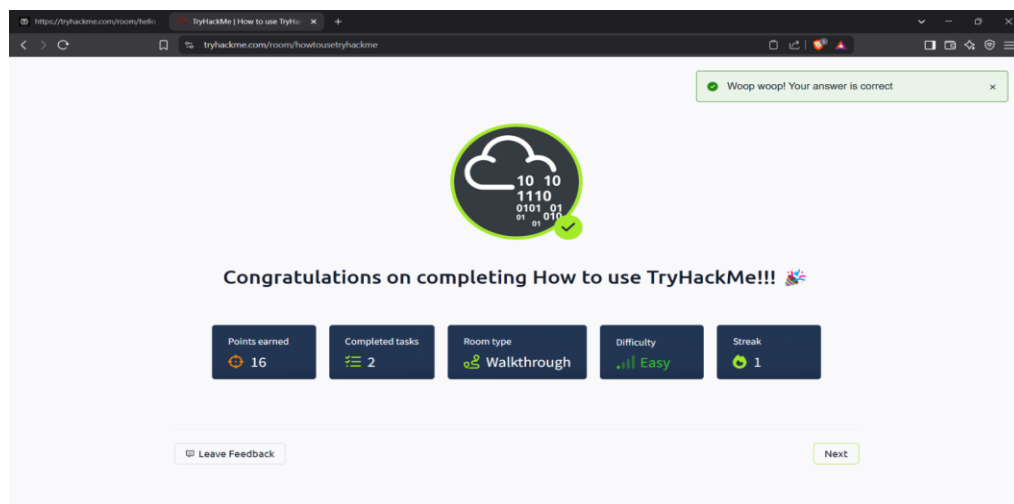
- Followed the instructions and clicked through each task.
- Practiced launching machines and used hints where needed.

4. Submission Process:

- Answered questions based on the tasks completed and marked them as done.

REFLECTIONS OR NOTES

- This room is perfect for beginners to get used to how the platform works.
- The mix of step-by-step guidance and makes learning engaging, while hands-on labs provide practical experience.
- The clear step-by-step instructions help users feel confident to try more advanced rooms after finishing this one.



3. Room Name: Getting Started

LINK: <https://tryhackme.com/room/gettingstarted>

LEARNING OBJECTIVE

The goal of the "Getting Started" room is to help new users learn how to use the TryHackMe platform. It teaches the basics of navigating rooms, using labs, and introduces simple cybersecurity ideas.

KEY TOOLS/COMMANDS USED

- **TryHackMe Dashboard:** Used to explore different features and sections.
- **Virtual Machines (VMs):** Practiced launching and using virtual machines for hands-on learning.
- **VPN Setup:** Learned how to use OpenVPN to connect to labs safely.

CONCEPTS LEARNED

1. Platform Navigation

- Learned how to find rooms, join them, and complete tasks.
- Explored key features like "Learn," "Practice," and "Compete."

2. Hands-On Labs:

- Practiced launching virtual machines.
- Understood how VPN helps keep the lab connection secure.

3. Cybersecurity Basics:

- Got introduced to ethical hacking and basic system security ideas.
- Gamification Features

4. Gamification Features:

- Learned about points, daily streaks, and the leaderboard for motivation.

WALKTHROUGH / HOW YOU SOLVED IT

1. Accessing the Room

- Logged into TryHackMe and opened the "Getting Started" room.

2. Exploring the Platform

- Followed the guide to learn about the dashboard and main features.

- Completed simple tasks that showed how the labs work.

3. Hands-On Practice

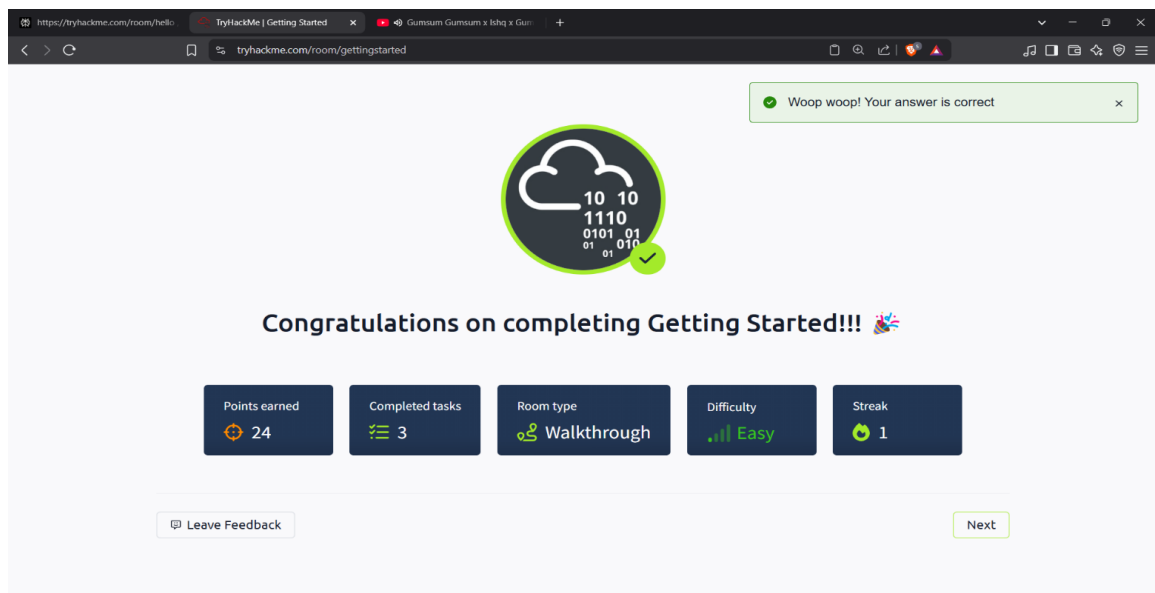
- Deployed virtual machines for practice .
- Set up VPN to connect securely to labs.

4. Finishing Tasks

- Answered questions after reading each section and marked them as done.

REFLECTIONS OR NOTES

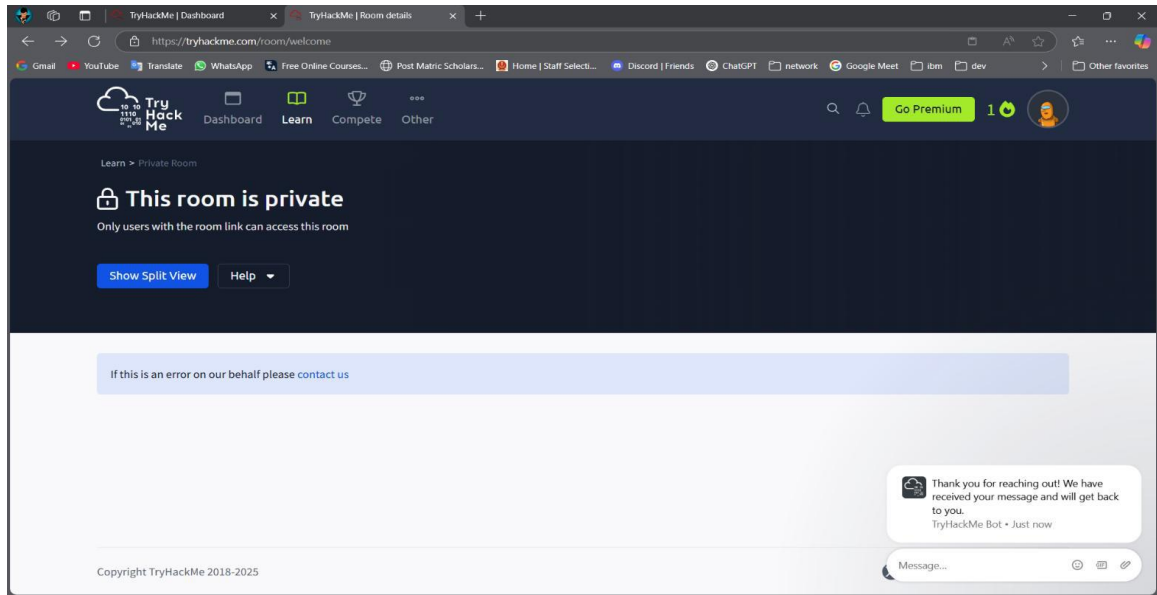
- This room is perfect for first-time users. It clearly explains how to use the platform.
- The mix of reading and hands-on work helps you learn better and faster.
- The points and streaks system makes learning fun and encourages regular practice.



4. Room Name : Welcome

LEARNING OBJECTIVE

The "Welcome" room on TryHackMe is designed as an introductory space for new users to familiarize themselves with the platform's goals and mission. It aims to provide a high-level overview of what TryHackMe offers and how it intends to help individuals learn cybersecurity in an engaging and practical way.



5. Room Name: TryHackMe Tutorial

LINK: <https://tryhackme.com/room/tryhackmetutorial>

LEARNING OBJECTIVE

The "TryHackMe Tutorial" room helps new users learn how to use the main features of the platform. It covers how to move around the site, understand different parts of a room, and use interactive tools to start learning cybersecurity.

KEY TOOLS/COMMANDS USED

- **TryHackMe Dashboard:** Learned how to use the different sections of the site.
- **Task Completion :** Understood how to read questions, write answers, and mark them complete.
- **Interactive Tools:** Used hints, launched virtual machines, and worked in the attack box to do exercises.

CONCEPTS LEARNED

1. Room Layout

- Got familiar with how each room is set up, including tasks, hints, and questions.

- Learned the types of tasks: multiple choice, written answers, and hands-on labs.

2. Doing Tasks

- Utilizing available resources like hints and explanations to solve tasks.
- Learned to track progress and submit correct answers.

3. Practice Labs

- Deploying and interacting with virtual machines within the room.
- Used the attack box to test out skills.

4. Navigation Techniques:

- Learned how to switch between rooms, follow learning paths, and find tasks easily.

WALKTHROUGH / HOW YOU SOLVED IT

1. Opened the Room :

- Logged into TryHackMe and opened the "TryHackMe Tutorial" room.

2. Explored the Features :

- Followed the instructions to understand how the room works.
- Completed each task using the provided hints when needed.

3. Hands-On Practice:

- Launched the virtual machines and used the attack box for practice.
- Submitted answers and kept track of my progress.

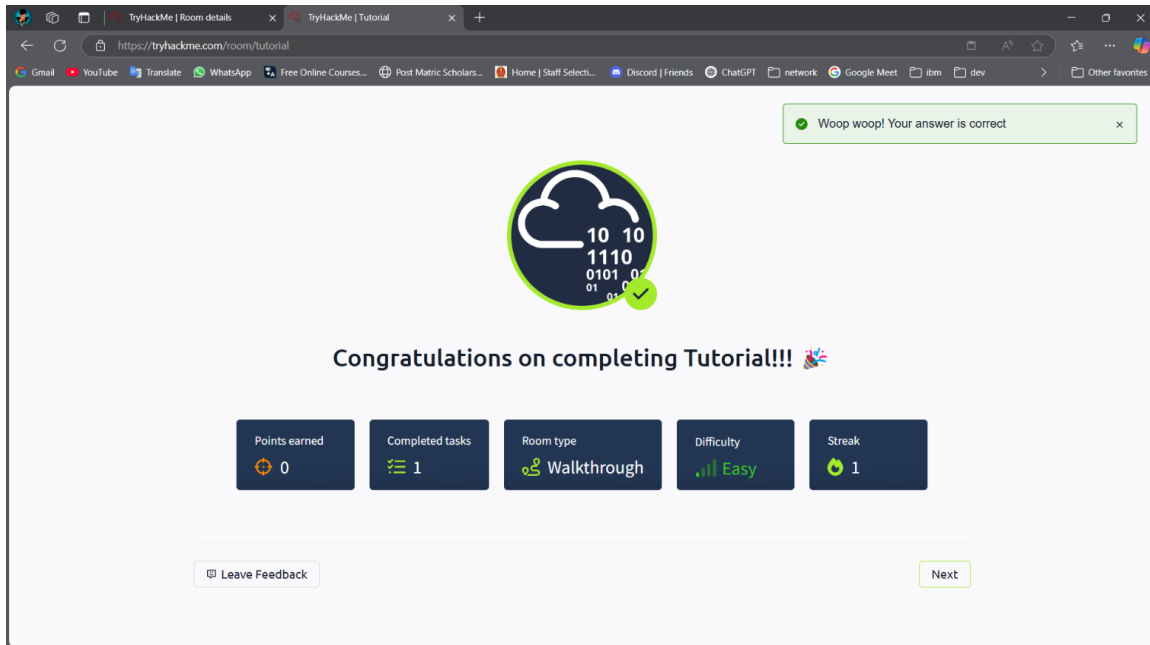
4. Review and Completion:

- Double-checked the completed tasks and made sure I understood everything.
- Marked the room complete after finishing all activities.

REFLECTIONS OR NOTES

- The "TryHackMe Tutorial" room is essential for new users, offering a structured introduction to the platform's core elements.

- It emphasizes hands-on learning through interactive tasks and virtual machines, enhancing the learning experience.
- Understanding the tutorial's content is crucial for effectively utilizing TryHackMe's resources and progressing through more advanced cybersecurity topics.



6. Room Name: OpenVPN Configuration

LINK: <https://tryhackme.com/room/openvpnconfiguration>

LEARNING OBJECTIVE

The "OpenVPN" room teaches users how to set up and use a VPN connection with TryHackMe. It explains how to download the needed files, connect to the VPN, and check if the connection is working properly so users can access TryHackMe's network safely.

KEY TOOLS/COMMANDS USED

- **OpenVPN Client:** Used to create the VPN connection.
- **Terminal/Command Line:** Where the commands are typed to run OpenVPN.
- **ifconfig or ip addr:** Commands used to check if the VPN is connected and showing the right IP.

CONCEPTS LEARNED

1. VPN Basic:

- Learned what VPNs are and why they're important in cybersecurity.
- Understood how VPNs help create a secure, private connection online.

2. OpenVPN Configuration:

- Downloaded the VPN configuration file.
- Set up the OpenVPN app to connect to TryHackMe.

3. Checking the Connection

- Verified the VPN connection by checking the new IP address.
- Made sure the VPN was running and letting me access TryHackMe rooms.

4. Fixing Issues

- Learned how to spot and fix common problems if the VPN doesn't connect.

WALKTHROUGH / HOW YOU SOLVED IT

1. Opened the Room :

- Logged in to TryHackMe and opened the "OpenVPN" room.

2. Downloaded the File :

- Got the OpenVPN config file from my TryHackMe account.

3. Installed OpenVPN :

- Installed the OpenVPN tool (for example, with apt-get install openvpn on Linux).

4. Connected to the VPN

- Ran the command `sudo openvpn <your_username>.ovpn` to connect to the VPN.

5. Checked the Connection

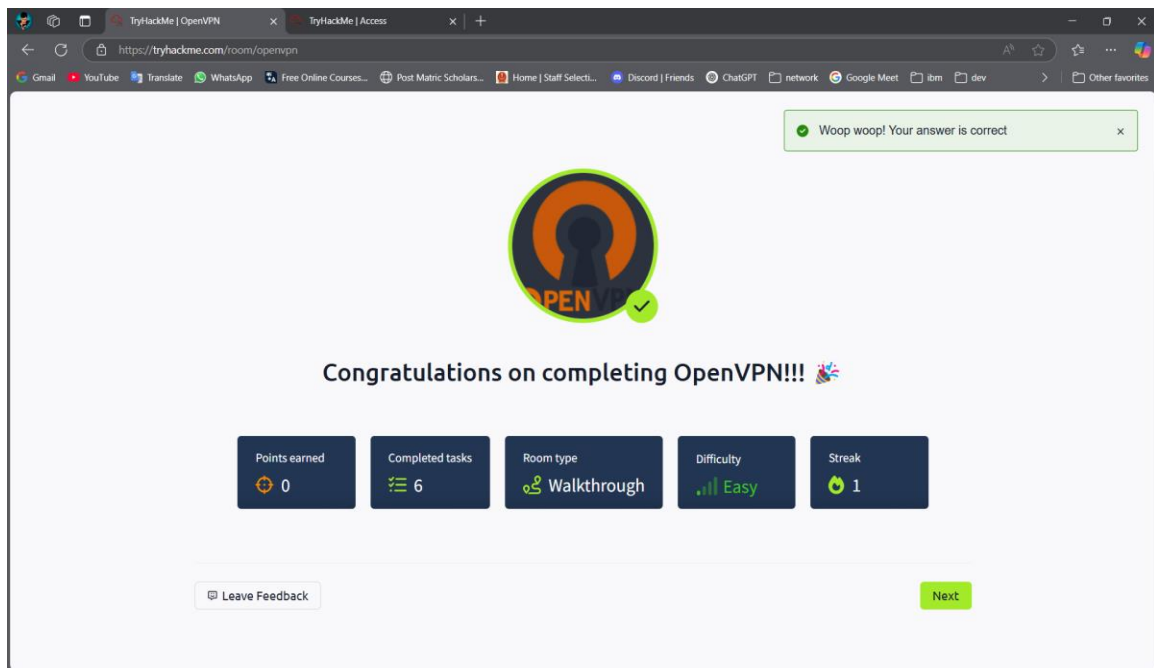
- Used `ifconfig` or `ip addr` to see if the VPN interface (like `tun0`) was active.
- Confirmed I could access TryHackMe labs while the VPN was on.

6. Finished the Tasks

- Answered all the room questions about setting up the VPN.

REFLECTIONS OR NOTES

- This room is super helpful because it shows how to safely connect to TryHackMe labs.
- I got hands-on practice with VPN setup, which is a useful real-world skill.
- Knowing how to fix VPN problems is great for keeping everything running smoothly.



7. Room Name: Beginner Path Introduction

Link: <https://tryhackme.com/room/beginnerpathintro>

LEARNING OBJECTIVE

The "Beginner Path Introduction" room gives a clear overview of what learners will go through in TryHackMe's beginner path. It explains the topics, modules, and important skills you'll pick up as you move forward, helping build a strong base in cybersecurity.

KEY TOOLS/COMMANDS USED

- **TryHackMe Learning Paths:** Used to understand how lessons are grouped and what they cover.

- **Module Overviews:** Reviewing the content and objectives of different modules within the path.
- **Room Previews:** Exploring individual rooms and tasks included in the beginner path.

CONCEPTS LEARNED

1. Learning Path Works

- Learned how TryHackMe organizes lessons into learning paths.
- Saw how the beginner path is divided into different modules with specific topics.

2. Module Content:

- Looked at the goals and skills taught in sections like Linux basics, website hacking, and network safety.
- Understood how the path builds knowledge from simple to more advanced.

3. Skills Gain:

- Identified key cybersecurity skills that will be learn during the path.
- Learned how to use these skills in real-world style labs and activities.

4. Resources:

- Found out about useful tools in the path like guides, hints, and extra learning materials.
- Learned how to make the most of these resources while studying.

WALKTHROUGH / HOW YOU SOLVED IT

1. Accessing the Room:

- Logged into TryHackMe and opened the "Beginner Path Introduction" room.

2. Checked the Overview :

- Read about the beginner path and what it aims to teach.
- Explored the different sections/modules of the path.

3. Reviewing the Modules :

- Reviewed lessons on topics like cybersecurity basics, web hacking, and network security.
- Noticed how each module builds up your knowledge step by step.

4. Found Learning Tools :

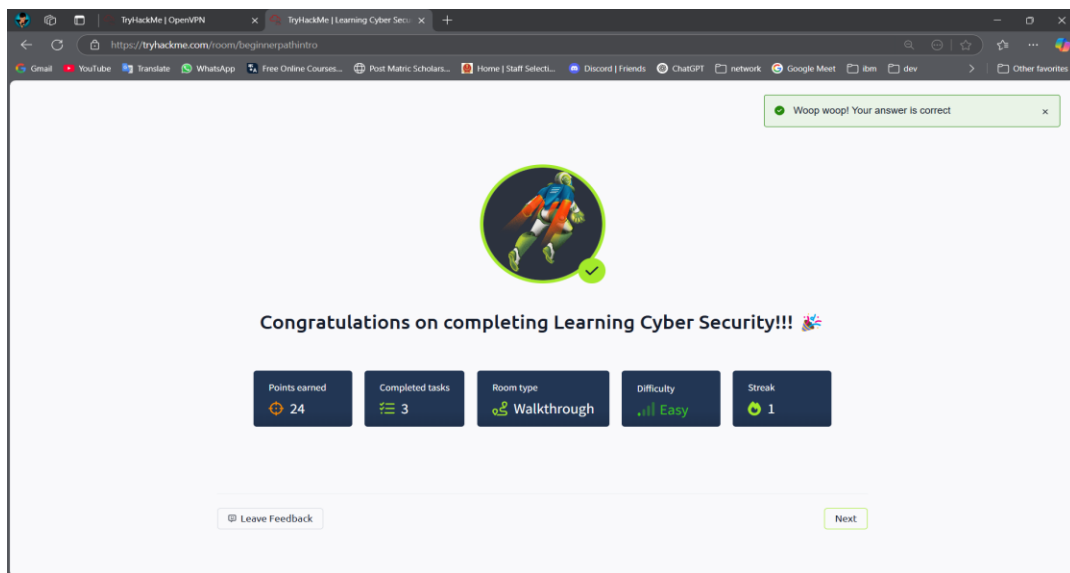
- Identified available resources, like tutorials, walkthroughs, and support materials.
- Learned how to use these tools to better understand the content.

5. Completed Tasks :

- Answered the questions in the room about the path and its modules.

REFLECTIONS OR NOTES

- This room is a great starting point for anyone new to cybersecurity on TryHackMe.
- It clearly explains how the beginner path works and what to expect.
- Knowing what the path includes makes it easier to follow along and build your skills the right way.



8. Room Name: Starting Out in Cyber Security

LINK: <https://tryhackme.com/room/startoutcybersecurity>

LEARNING OBJECTIVE

The "Starting Out in Cyber Security" room helps users learn about the different roles in cybersecurity. It introduces the key skills needed for each role and guides beginners on how to structure their learning and career paths.

KEY TOOLS/COMMANDS USED

- **TryHackMe Learning Paths:** Explored various paths designed for different cybersecurity jobs.
- **Cybersecurity Role Descriptions:** Read about the duties and requirements for various cybersecurity positions.
- **Skill Assessments:** Identified the skills needed for specific roles in cybersecurity

CONCEPTS LEARNED

1. Cybersecurity Roles :

- Learned about different jobs in cybersecurity, like security analyst, penetration tester, and security engineer.
- Understood the tasks and responsibilities for each role.

2. Essential Skills :

- Identified the key skills for success in cybersecurity, such as technical knowledge, problem-solving, and analytical thinking.
- Realized the need for continuous learning to stay updated in the field.

3. Learning Paths :

- Explored the suggested learning paths for each cybersecurity role.
- Learned how to organize your learning to meet career goals.

4. Career Planning :

- Gained basic insights on how to plan a career in cybersecurity.
- Understood the steps needed to gain the right skills and experience for the job.

WALKTHROUGH / HOW YOU SOLVED IT

1. Accessing the Room :

- Logged into TryHackMe and entered the "Starting Out in Cyber Security" room.

2. Exploring Roles :

- Read the descriptions of various cybersecurity roles.
- Picked out roles that matched my interests and skills.

3. Identifying Skills :

- Learned about the skills needed for each role, such as technical expertise and soft skills.
- Assessed my own skills and identified areas to improve.

4. Exploring Learning Paths :

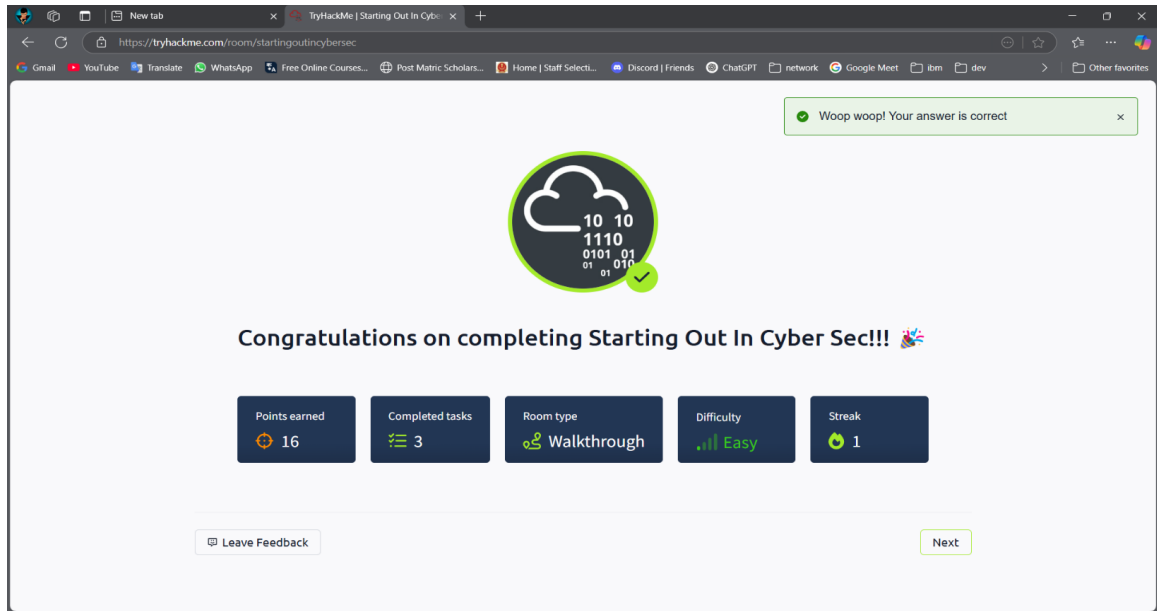
- Looked at the recommended learning paths for various cybersecurity careers.
- Understood how to structure learning to reach career goals.

5. Task Completion :

- Answered questions related to cybersecurity roles, skills, and learning paths.

REFLECTIONS OR NOTES

- This room is great for anyone starting in cybersecurity, giving a clear overview of the field.
- It helps beginners understand the roles, skills, and learning paths to focus on.
- Knowing this information is important for planning a successful cybersecurity career.



9. Room Name: Introduction to Research

LINK: <https://tryhackme.com/room/introductiontoresearch>

LEARNING OBJECTIVE

The "Introduction to Research" room teaches the basic research skills needed in cybersecurity. It helps users learn how to search effectively, find trusted information, and use tools like search engines and databases to collect details for security tasks.

KEY TOOLS/COMMANDS USED

- **Search Engines (Google, DuckDuckGo):** Used to look up cybersecurity info online.
- **Online Databases (e.g., NIST, CVE):** Used to find data about known security issues.
- **Documentation and Whitepapers:** Read for deep technical understanding on certain topics.

CONCEPTS LEARNED

1. Smart Searching :

- Learned how to write good search questions using the right keywords.
- Practiced narrowing down search results to get the most useful information.

2. Trusted Information :

- Figured out how to check if a website or source is reliable.
- Learned to use official documents, academic articles, and vendor websites.

3. Using Databases :

- Explored resources like the NIST Vulnerability Database and CVE database.
- Learned to search these platforms for information on specific threats or bugs.

4. Research Techniques :

- Got introduced to simple ways to do research for security tasks like threat analysis and incident response.

WALKTHROUGH / HOW YOU SOLVED IT

1. Getting Started

- Logged into TryHackMe and opened the "Introduction to Research" room.

2. Search Practice :

- Learned how to use search engines better by creating good search queries.
- Practiced finding the right results and filtering out the unhelpful ones.

3. Checking Sources :

- Looked at different types of websites and judged how trustworthy they are.
- Understood why it's important to rely on strong, accurate sources.

4. Exploring Databases :

- Used platforms like NIST and CVE to find real vulnerability info.
- Practiced searching for details relevant to cybersecurity investigations.

5. Finishing Tasks :

- Answered all the room's questions based on the research tools and methods learned.

REFLECTIONS OR NOTES

- This room is really useful for learning how to do good research in cybersecurity.
- It shows why searching properly, finding reliable info, and using databases matters.
- These skills are key for staying updated on new threats and knowing how to respond to them effectively.

