

EX.NO: 2
DATE : 12.02.2025

SECURITY PRINCIPLES

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Aim:

To understand the **CIA triad**, **security models**, **Defense-in-Depth**, **Zero Trust**, and **threat vs. risk** in cybersecurity.

Algorithm:

1. Learn the **CIA Triad (Confidentiality, Integrity, Availability)**.
2. Understand **DAD (Disclosure, Alteration, Destruction)** threats.
3. Explore **security models** and their principles.
4. Apply **Defense-in-Depth** for layered security.
5. Study **ISO/IEC 19249** security framework.
6. Compare **Zero Trust vs. Trust but Verify** approaches.
7. Differentiate **threats** from **risks**.

Security Principles
Learn about the security triad and common security models and principles.
Easy 90 min

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Room completed (100%)

- Task 1 Introduction
- Task 2 CIA
- Task 3 DAD
- Task 4 Fundamental Concepts of Security Models
- Task 5 Defence-in-Depth
- Task 6 ISO/IEC 19249
- Task 7 Zero Trust versus Trust but Verify
- Task 8 Threat versus Risk
- Task 9 Conclusion

TASK 2 : CIA:

Click on "View Site" and answer the five questions. What is the flag that you obtained at the end?

THM{CIA_TRIAD}

✓ Correct Answer

🔍 Hint

TASK 3 : DAD:

The attacker managed to gain access to customer records and dumped them online. What is this attack?

Disclosure

✓ Correct Answer

A group of attackers were able to locate both the main and the backup power supply systems and switch them off. As a result, the whole network was shut down. What is this attack?

Destruction/Denial

✓ Correct Answer

TASK 4 : FUNDAMENTAL CONCEPTS OF SECURITY MODELS

Click on "View Site" and answer the four questions. What is the flag that you obtained at the end?

THM{SECURITY_MODELS}

✓ Correct Answer

TASK 5 : DEFENCE-IN-DEPTH

Make sure you have read the above.

No answer needed

✓ Correct Answer

TASK 6 : ISO/IEC 19249

Which principle are you applying when you turn off an insecure server that is not critical to the business?

2

✓ Correct Answer

Your company hired a new sales representative. Which principle are they applying when they tell you to give them access only to the company products and prices?

1

✓ Correct Answer

While reading the code of an ATM, you noticed a huge chunk of code to handle unexpected situations such as network disconnection and power failure. Which principle are they applying?

5

✓ Correct Answer

TASK 7 : ZERO TRUST VERSUS TRUST BUT VERIFY

Make sure you have read the above.

No answer needed

✓ Correct Answer

TASK 8 : THREAT VERSUS RISK

We should use a removable drive on systems **without** a TPM version 1.2 or later. What does this removable drive contain?

startup key

✓ Correct Answer

🔍 Hint

Result:

TryHackMe platform **Security Principles** tasks have been successfully completed.