EX.NO: 3 IDENTITY AND ACCESS MANAGEMENT ROLLNO:231901033

DATE: 12.02.2025 NAME: NAVEEN C H

#### Aim:

To understand identification, authentication, authorization, accountability, and identity management in security.

## **Procedure**

# 1. Learn the IAAA Model

Study the four core principles: Identification, Authentication, Authorization, and Accountability.

#### 2. Understand Identification Methods

Explore how systems recognize users through unique identifiers like usernames or ID numbers.

## 3. Explore Authentication Techniques

Learn about different methods such as passwords, biometrics, and multi-factor authentication (MFA).

## 4. Study Authorization & Access Control Models

Understand how access is granted using models like Role-Based Access Control (RBAC), Mandatory Access Control (MAC), and Discretionary Access Control (DAC).

## 5. Learn About Logging & Accountability

Discover how system logs help track user actions and enforce accountability.

### 6. Understand Identity Management

Study how user identities are created, managed, and assigned roles within systems.

## 7. Identify Attacks on Authentication

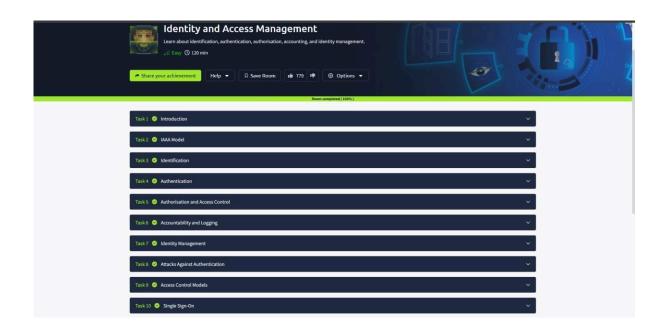
Examine common attack methods such as brute force, phishing, and credential stuffing.

## 8. Compare Different Access Control Models

Analyze the strengths and weaknesses of various models like RBAC, MAC, DAC, and ABAC (Attribute-Based Access Control).

### 9. Learn About Single Sign-On (SSO)

Understand how SSO simplifies access by allowing users to authenticate once for multiple systems.



### **TASK 1:INTRODUCTION**

What is the name of the room recommended to finish before this one?

Security Principles

Correct Answer

# TASK 2: IAAA MODEL

Accountability



✓ Correct Answer

# TASK 3: IDENTIFICATION

Which of the following **cannot** be used for identification?

- 1. Email address
- 2. Mobile number with international code
- 3. Year of birth
- 4. Passport number

3 ✓ Correct Answer

Which of the following cannot be used for identification?

- 1. Landline phone number
- 2. Street number
- 3. Health insurance card number
- 4. Student ID number

2 ✓ Correct Answer

#### TASK 4: AUTHENTICATION

When you want to check your email, you enter your username and password. What kind of authentication is your email provider using?

✓ Correct Answer Your bank lets you finish most of your banking operations using its app. You can log in to your banking app by providing a username and a password and then entering the code received via SMS. What kind of authentication is the banking app using? ✓ Correct Answer 4 Your new landline phone system at home allows callers to leave you a message when the call is not picked up. You can call your home number and enter a secret number to listen to recorded messages. What kind of authentication is being used here? ✓ Correct Answer 1 You have just started working at an advanced research centre. You learned that you need to swipe your card and enter a four-digit PIN whenever you want to use the elevator. Under which group does this authentication fall? ✓ Correct Answer 4 TASK 5: AUTHORISATION AND ACCESS CONTROL The new policy states that the secretary should be able to send an email on the manager's behalf. What is this policy dictating? ✓ Correct Answer You shared a document with your colleague and gave them view permissions so they could read without making changes. What would ensure that your file won't be modified? ✓ Correct Answer

The hotel management decided that the cleaning staff needed access to all the hotel rooms to do

✓ Correct Answer

their work. What phase is this decision part of?

TASK 6: ACCOUNTABILITY AND LOGGING TASK 7: IDENTITY MANAGEMENT What does IdM stand for? **Identity Management** ✓ Correct Answer What does IAM stand for? ✓ Correct Answer Identity and Access Management TASK 8: ATTACKS AGAINST AUTHENTICATION The attacker could authenticate using the user's response when the authentication protocol required a password encrypted with a shared key. What is the name of the attack? Replay Attack ✓ Correct Answer TASK 9: ACCESS CONTROL MODELS You are sharing a document via a network share and giving edit permission only to the accounting department. What example of access control is this? ✓ Correct Answer 2 You published a post on a social media platform and made it only visible to three out of your two hundred friends. What kind of access control did you use? ✓ Correct Answer

TASK 10 : SINGLE SIGN-ON

What does SSO stand for?

Single Sign-On	✓ Correct Answer
Does SSO simplify MFA use as it need	ds to be set up once? (Yea/Nay)
Yea	✓ Correct Answer
s it true that SSO can be cumbersor passwords for the various services?	me as it requires the user to remember and input different (Yea/Nay)
Nay	✓ Correct Answer
Does SSO allow users to access vario	ous services after signing in once? (Yea/Nay)
Yea	✓ Correct Answer
Does the user need to create and re	member a single password when using SSO? (Yea/Nay)

#### Dogult

{THM\_ACCESS\_CONTROL}

TryHackMe platform **Identity and Access Management** tasks have been successfully completed.