

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.



## Identity and Access Management

Learn about Identification, authentication, authorisation, accounting, and identity management.

Easy 120 min

[Share your achievement](#) [Help](#) [Save Room](#) [779](#) [Options](#)

Room completed (100%)

- Task 1 Introduction
- Task 2 IAAA Model
- Task 3 Identification
- Task 4 Authentication
- Task 5 Authorisation and Access Control
- Task 6 Accountability and Logging
- Task 7 Identity Management
- Task 8 Attacks Against Authentication
- Task 9 Access Control Models
- Task 10 Single Sign-On

### TASK 1:INTRODUCTION

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

Security Principles

✓ Correct Answer

### TASK 2 : IAAA MODEL

You are granted access to read and send an email. What is the name of this process?

Authorisation

✓ Correct Answer

Which process would require you to enter your username?

Identification

✓ Correct Answer

Although you have write access, you should only make changes if necessary for the task. Which process is required to enforce this policy?

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?

1

✓ 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?

4

✓ Correct Answer

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?

1

✓ Correct Answer

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?

4

✓ Correct Answer

#### 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?

1

✓ 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?

2

✓ Correct Answer

The hotel management decided that the cleaning staff needed access to all the hotel rooms to do their work. What phase is this decision part of?

1

✓ Correct Answer

## TASK 6 : ACCOUNTABILITY AND LOGGING

### TASK 7 : IDENTITY MANAGEMENT

What does IdM stand for?

Identity Management

✓ Correct Answer

What does IAM stand for?

Identity and Access Management

✓ Correct Answer

### 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?

2

✓ Correct Answer

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?

1

✓ Correct Answer

## TASK 10 : SINGLE SIGN-ON

What does SSO stand for?

Single Sign-On

✓ Correct Answer

Does SSO simplify MFA use as it needs to be set up once? (Yea/Nay)

Yea

✓ Correct Answer

Is it true that SSO can be cumbersome as it requires the user to remember and input different passwords for the various services? (Yea/Nay)

Nay

✓ Correct Answer

Does SSO allow users to access various services after signing in once? (Yea/Nay)

Yea

✓ Correct Answer

Does the user need to create and remember a single password when using SSO? (Yea/Nay)

Yea

✓ Correct Answer

## TASK 11 : SCENARIOS

Click on **View Site** and follow the exercise to get a flag.

{THM\_ACCESS\_CONTROL}

### Result:

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