EX.NO: 3 IDENTITY AND ACCESS MANAGEMENT

ROLLNO:231901035

DATE: 12.02.2025 NAME: NITHEESH K

K

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

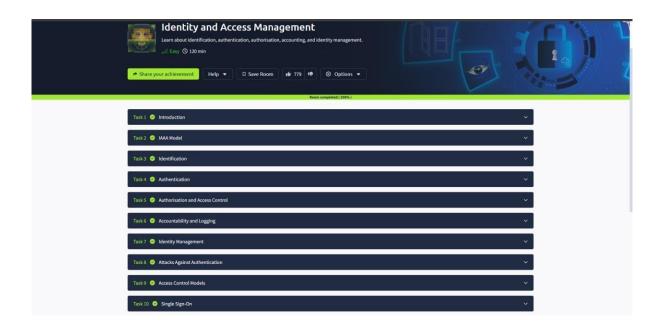
Examine common attack methods such as brute force, phishing, and credential stuffing.

8. Compare Different Access Control Models

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

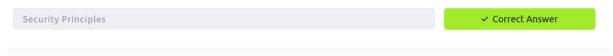
9. Learn About Single Sign-On (SSO)

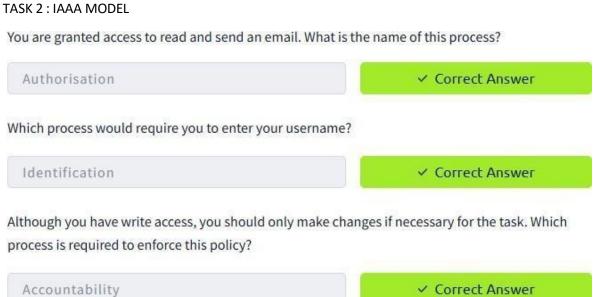
Understand how SSO simplifies access by allowing users to authenticate once for multiple systems.



TASK 1:INTRODUCTION

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





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

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

✓ 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 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 2 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 | s to be set up once? (Yea/Nay) |
| Yea | ✓ Correct Answer |
| Is it true that SSO can be cumbersom passwords for the various services? (\ | ne as it requires the user to remember and input different Yea/Nay) |
| Nay | ✓ Correct Answer |
| Does SSO allow users to access vario | us services after signing in once? (Yea/Nay) |
| Yea | ✓ Correct Answer |
| Does the user need to create and rem | nember a single password when using SSO? (Yea/Nay) |
| Yea | ✓ Correct Answer |
| ASK 11 : SCENARIOS | |
| lick on View Site and follow the e | exercise to get a flag. |
| {THM_ACCESS_CONTROL} | |

Result:

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