

# Welcome to this session: Authentication and Authorization

**The session will start shortly...**

Questions? Drop them in the chat.  
We'll have dedicated moderators  
answering questions.





# What is Safeguarding?

Safeguarding refers to actions and measures aimed at protecting the human rights of adults, particularly vulnerable individuals, from abuse, neglect, and harm.



**To report a safeguarding concern reach out to us via email:**  
**[safeguarding@hyperiondev.com](mailto:safeguarding@hyperiondev.com)**

## Live Lecture Housekeeping:

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly.
- No question is daft or silly - ask them!
- For all non-academic questions, please submit a query:  
[www.hyperiondev.com/support](http://www.hyperiondev.com/support)
- To report a safeguarding concern reach out to us via email:  
[safeguarding@hyperiondev.com](mailto:safeguarding@hyperiondev.com)
- If you are hearing impaired, please kindly use your computer's function through Google chrome to enable captions.



# Lecture Overview

---

- Authentication
- Authorization



## Learning Outcomes

---

- ❖ Differentiate between authentication and authorisation.
- ❖ Explain key mechanisms for authentication and authorisation.

# Authentication and Authorisation

Think of an online banking system. What might happen if there were no authentication or if all users had the same level of access?



# Authentication

- Authentication is the process of proving something or someone is genuine.



# Password-based authentication

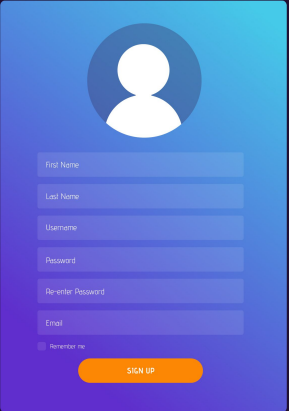
- Password-based authentication require the user to present credentials such as a username and password.





# Registration

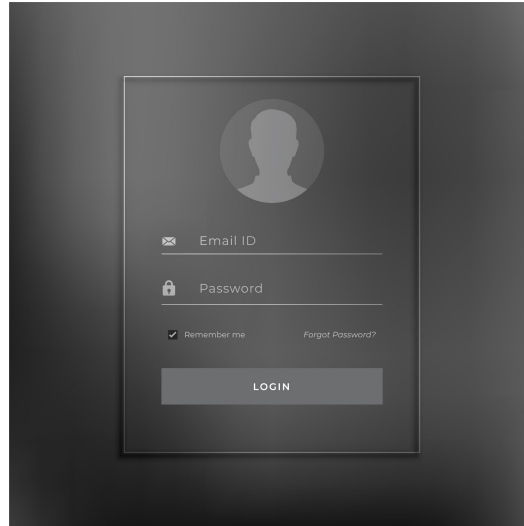
- To register a user has to provide a unique identifier and a password.



A registration form mockup with a blue gradient background. At the top is a white user icon. Below it are input fields for First Name, Last Name, Username, Password, Re-enter Password, and Email. A checkbox labeled 'Remember me' is below the Email field. An orange 'SIGN UP' button is at the bottom. The text 'designed by freepik' is at the very bottom.

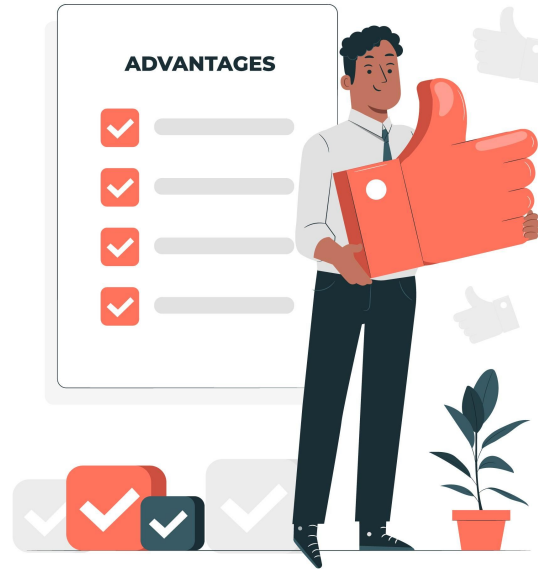
# Login

- When we login we provide the credential we used to register.



# Advantages of PBA

- Affordable
- Familiar
- User Control



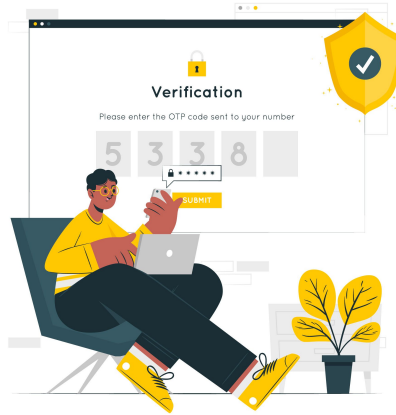
# Disadvantages of PBA

- Complex Passwords
- Weak Passwords
- Predictable Passwords
- People Forget



# Multi-Factor Authentication

- Multi-factor authentication is an authentication method that requires user to have 2 or more pieces of evidence having multiple factor involved during authentication.



# Why MFA?

- Extra Layer of Protection.
- Compromised Passwords.
- Secondary Factors Harder to falsify.



# Biometrics

- Technology that uses biological identifiers for authentication.



# Authentication

Why is simply knowing someone's identity (authentication) not enough to ensure the security of a system?







# Let's take a break

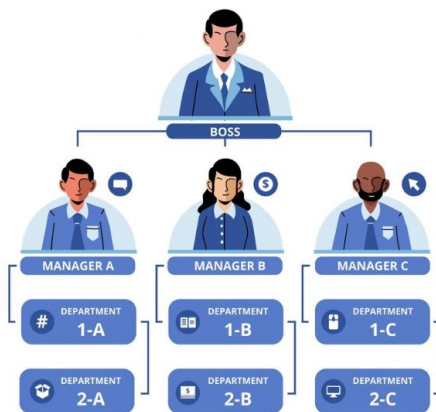
# Authorisation

- The process of determining whether a user has access to specific resources or not.



# Role-Based Access Control

- User authorization method that controls access to protected resources based on the user's role within the organization.



# Benefits

- Security
- Regulatory Compliance
- Reduces Workload
- Scalability



# Authentication and Authorisation

How does the lack of authorization mechanisms impact data privacy and security?



# Polls

Please have a look at the poll notification and select an option.

What is the primary purpose of authentication?

- A. Encrypting user data
- B. Verifying a user's identity
- C. Assigning user permissions
- D. Restricting access to databases

# Polls

Please have a look at the poll notification and select an option.

What does authorisation determine?

- A. How a user is authenticated
- B. What resources a user can access
- C. The strength of a password
- D. The user's identity

# Q & A SECTION

**Please use this time to ask  
any questions relating to the  
topic, should you have any.**



**Thank you  
for attending**



**HyperionDev**