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WD Assignment

Q1.

Ans

What is Authentication and Authorization and difference between them?

Authentication :-

Authentication means confirming your own identity. In simple words, authentication is the process of verifying who you are.

- Authentication is about validating your credentials like Username / UserID and password to verify your identity. The system determines whether you are what you say you are using your credentials. In public & private networks, the system authenticates the user identity via login passwords.

- Authentication is generally done by a username & password and sometimes in conjunction with factors of authentication.

- ★ Based on the security level, authentication factor can vary from one of the following:

- 1) Single-Factor Authentication :- It is the simplest authentication method which commonly relies on a simple password to grant user access to a particular system.

- 2) Two-Factor Authentication :- It is a two-step verification process which requires a username & password and something only the user knows.

- 3) Multi-Factor Authentication :- It is the most advanced method of authentication which uses two or more levels of security from independent categories of authentication to grant user access to the system.

Example (OTP)



## Authorization :-

Authorization means granting access to the system.

In simple words  $\rightarrow$  It is the process of verifying what you have access to.

- Authorization, on the other hand, occurs after your identity is successfully authenticated by the system, which ultimately gives you full permission to access the resources such as information, files, databases, folders, locations, almost anything. In simple terms, authorization determines your ability to access the system and up to what extent. Once your identity is verified by the system after successful authentication, you are then authorized to access the resources of the system.

Authorization is the process to determine whether the authenticated user has access to the particular resources. It verifies your rights to grant you access to resources such as information, database, files, etc.

- Authorization comes after authentication which confirms your privileges to perform.
- It's like giving someone official permission to do something or anything.

Q  
Ans.

## Difference between Authentication and Authorization

Authentication confirms your identity to grant access to the system.

It is the process of validating user credentials to grant user access.

It determines whether user is what he claims to be.

Authentication usually requires a username and password.

Authentication is the first step of authorization, so always comes first.

Example: Students of a particular university are required to authenticate themselves accessing the student link of the university's official website. This is called authentication.

Authorization determines whether you are authorized to access the resource.

It is the process of verifying whether access is allowed or not.

It determines what user can and cannot access.

Authentication factors required for authorization may vary, depending on the security level.

Authorization is done after successful authentication.

Example: Authorization determines exactly what information the students are authorized to access on the university website after successful authentication.