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Data Structures

September 30<sup>th</sup>, 2025

Lab 2

## **Authorization**

Authorization is basically the process of controlling what an authenticated user is allowed to do with a system. While authentication is used to verify the user's identity (In this case, logging in with a username and a password), authorization determines the actions and resources said user can access. Authorization controls access to these things answering the question "What can this user do?" rather than "Who are you?".

Now, what exactly is a Role-Based Access Control (RBAC)? To put it in simple words, it is where users are assigned different roles like admin, editor, or viewer and each have specific permissions. For example, an admin can modify all files while a viewer can only read them.

Another method would be the Access Control Lists (ACLs). Which defines, for each resource, which users or groups can perform certain actions. This could be reading or writing a file. The principle of least privilege then comes in to play by ensuring the users have only the minimum permissions necessary to complete their tasks. This reduces the risk of accidental or malicious misuse.