

What is Broken Access Control?

Broken Access Control happens when a system fails to properly enforce rules about what authenticated users are allowed to do.

In short, it means users can act outside their intended permissions.

Access Control is about who can do what in a system.

Example:

- 1. Regular users should not access admin pages.**
- 2. A user should not be able to edit another user's profile.**

When these protections are missing or improperly set up, you get Broken Access Control vulnerabilities.

Common Example

Vertical Privilege Escalation : A normal user becomes an admin by accessing a hidden admin panel.

Horizontal Privilege Escalation : A user accesses another user's private data

Forced Browsing : Guessing or manipulating URLs to access restricted resources

Insecure ID References : Exposing database IDs directly without validation, letting users manipulate them

Impact :

Data theft (personal info, business secrets)

Unauthorized account takeover

Unauthorized system control

How to Prevent It

Always check authorization server-side (never trust user input!).

Use role-based access controls (RBAC) or attribute-based access controls (ABAC) properly.

Avoid exposing internal object IDs directly (use random tokens instead).

Implement strong logging and monitoring for unusual access patterns.

Deny access by default and allow only specific permissions explicitly.