# ADR

**Title:**

Type of inventory table with strong authorisation access and GDPR compliance regulations.

**Context + Problem Statement:**

This library management system’s inventory table stores media information and branch information, which are sensitive operational data. Whenever library branch managers need to transfer media, they need to use the transfer media form. That is why there should be strong authorisation for access control, such as only branch managers being able to access the transfer media form. Data protection is also necessary because when transferring media to another branch, information should be GDPR compliant.

**Decision Driver:**

* Ensure that specific inventory information and media details should be prevented from unauthorised access.
* Ensure that data security and regulations are GDPR compliance.

**Option:**

Role-based access control, token-based authorization with validation, IP whitelisting,

**Considered Options:**

* Token-based authorization

Whenever they log in to the system to access the transfer media form, the system sends the token to their email.

* IP whitelisting

Allow access to transfer media form only from the specific IP location link.

**Decision Outcomes:**

* Role-based access control **(RBAC)**

Only give transfer media form authorization access to the branch manager.

**Consequences:**

Positive consequences

* **Improving compliance**

Limiting personal data processing and complying with GDPR.

* **Data Security**

Only specific users can access the transfer media form, which has sensitive media and branch data.

Negative consequences

* **Implementation complexity**

Only allowing authorised users to access transfer media forms, so that is why there should be a requirement to well-define roles for access control.

**Confirmation:**

This decision is based on the user’s expectation for secure functionality and GDPR regulations.

**Pros and Cons:**

**Pros**

* Restrict to sensitive data information.
* Access control and meet with GDPR regulations.
* Allow the authorized users to access and allow them to transfer media.

**Cons**

* Configurations of roles and permissions are required.
* Maintenance costs will be higher as initial setup is complex.

**Resources**

1. **Zhang, E. (2018, August 20). *What Is Role-Based Access Control (RBAC)? Examples, Benefits, and More*. Digital Guardian.** [**https://www.digitalguardian.com/blog/what-role-based-access-control-rbac-examples-benefits-and-more**](https://www.digitalguardian.com/blog/what-role-based-access-control-rbac-examples-benefits-and-more)
2. ***What Is Token-Based Authentication? | Okta UK*. (2024, December 9). Www.okta.com.** [**https://www.okta.com/uk/identity-101/what-is-token-based-authentication/**](https://www.okta.com/uk/identity-101/what-is-token-based-authentication/)
3. **GDPR. (2018). *General data protection regulation (GDPR)*. General Data Protection Regulation (GDPR).** [**https://gdpr-info.eu/**](https://gdpr-info.eu/)
4. **Microsoft. (2022, August 21). *What is Azure role-based access control (Azure RBAC)?* Learn.microsoft.com.** [**https://learn.microsoft.com/en-us/azure/role-based-access-control/overview**](https://learn.microsoft.com/en-us/azure/role-based-access-control/overview)