

Security Implementation

SECURITY IMPLEMENTATION DOCUMENT

1. RBAC Implementation

Users created in MySQL/MariaDB:

- admin_user
- analyst_user
- dept_head_cs

2. Data Masking

Masked view created:

- vw_masked_fact_usage

This view hides part of student_id values.

3. Department Restriction

Department view created:

- vw_cs_department_usage

This ensures department heads can only access their own department.

4. Audit Logging

Table created: audit_log

Triggers created on fact_library_usage:

- INSERT trigger
- UPDATE trigger
- DELETE trigger

5. Encryption Notes

MariaDB/XAMPP does not support ENCRYPTION='Y' for tables.

Encryption at rest should be handled by disk encryption (BitLocker).

Encryption in transit should be enabled using SSL/TLS certificates.