

# STP\_SQL\_Testing\_Project

**Project name:** SQL Data Validation Testing Project

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## Objective

The goal of this project is to validate database data consistency and accuracy after performing user actions through the KSP API. The testing focuses on verifying that data in the users, orders, products, and cart tables is updated correctly after transactions such as registration, adding products, and creating orders.

## Scope

- Verify that a new user is added to the users table after registration.
- Check that order records are created and linked to the correct user in the orders table.
- Confirm that the products stock value decreases after an order.
- Ensure no invalid or negative totals exist in the orders table.
- Validate that all users have emails and no NULL values in mandatory fields.

## Environment

Database: MySQL (mocked environment)

Tools: DBeaver / MySQL Workbench

Data source: Data generated through API Testing Project (KSP API)

Access type: Read-only test credentials

## Test Types

- Functional — validate correct data updates
- Negative — check for invalid or missing records
- Validation — verify constraints such as NOT NULL or UNIQUE
- Integrity — confirm relationships between tables (foreign keys)

## Example Queries

1. SELECT \* FROM users WHERE email='test@example.com';
2. SELECT COUNT(\*) FROM orders WHERE user\_id=5;
3. SELECT stock FROM products WHERE product\_id=101;
4. SELECT \* FROM orders WHERE total < 0;
5. SELECT COUNT(\*) FROM users WHERE email IS NULL;