

Day 3 – Transactions

These exercises are about database transactions, Handling exceptions in java code and about how to test it. Database transaction ensures that, in case of multiple statements it is ALL or NOTHING.

Exercise 1: Insert an order

1. Use the mailorder database (script file is in demo folder). In mysql workbench create transaction that insert a new order with 2 orderlines
 - a. Hint: `set autocommit=0;` in the script.
 - b. Test run the transaction with commit or rollback.
2. Make a transaction that can delete an order with orderliness, so that all the order lines are deleted together with the order. The transaction should prevent an accidental situation where an orderline can be deleted and then deleting the next orderline and the order itself fails.
3. Create a Mapper class in a java program that can create the above transactions using JDBC.

Exercise 2: SQL exeptions

1. Create or reuse a CustomerMapper.
2. Make a CustomerException class. To wrap SQLExceptions in the CustomerMapper.
3. Create a DB façade class that passes the CustomerExceptions up to the next layer.
4. Create a Servlet that can catch the CustomerException and create a proper error message to the end user.

Exercise 3: junit testing

1. Create a junit test for the DB façade. The unit test should test that a CustomerException is indeed thrown by the method.