

02267: Software Development of Web Services

7.1 Using Compensation in the Order Process

The zip file at <http://www2.imm.dtu.dk/courses/02267/files/OrderProcessCompensation.zip> contains an implementation of a simple order process where the process first receives an order, then receives the payment, and finally starts the shipment with the shipper. During payment, the bank is contacted to debit the credit card. The shipper2 implementation fails when the customer has id 2. In this case the payment should be refunded by sending the refund credit card to the bank. Note, that in contrast to the OrderProcess from the lecture in week 6, the shipping is done as part of the payment process. The reason for this is, that this allows to write test cases that fail when compensation is not implemented.

Tasks

- i. Unpack the zip file, deploy the projects, and run the tests. Make sure that you have undeployed any previous versions of the order process and that you have refreshed the Web service references of the test client (with copying the original WSDL checked).
 - Note that the test testShipFailure will fail. Your task is to adapt the BPEL process, so that the test passes in the end.
- ii. Change the order process such that when the shipper throws an exception, the credit card is refunded. The execution of the refund operation can be checked in the respective server log. Note that this is not enough to make the test testShipFailure pass. For this you also need to do task iii.
- iii. Add a fault handler, so that the process does not stop with an exception that an error is not handled in the BPEL process. Make sure that still the credit card is refunded. Again, the execution of the refund operation can be checked in the server log.