

Draw a business use case diagram, a BPMN diagram. Use separate process pools and message exchange to model the communication between helpdesk and the customer. Use timer events to model the time constraints.

## Helpdesk

The process of solving an issue starts with the customer reporting the issue via a web form. The issue is assigned to one of the operators. The operator notifies the customer about accepting the reported issue and tries to find a solution in a knowledge base. If he is able to find a solution, he sends it to the customer. Otherwise, the issue is escalated to the first support line.

Employee of the first support line notifies the customer about accepting the reported issue and tries to solve the problem. If he is able to find a solution within 8 hours, he enters it into the knowledge base and sends the solution to the customer. Otherwise, the issue is escalated to the second support line.

Employee of the second support line notifies the customer about accepting the reported issue and tries to solve it. If solving the issue takes more than 8 hours, he notifies the customer that his issue is a serious one and work on a solution is in progress. After finding the solution he enters it into the knowledge base and sends the solution to the customer.

When the customer receives a solution, he checks whether it works. If yes - he sends appropriate information to the helpdesk and the whole process ends. If not - he notifies the helpdesk operator and the whole procedure is repeated. If he gives no answer within 5 business days, the issue is considered to be solved and the process ends.

Draw a business use case diagram, a BPMN diagram. Use separate process pools and message exchange to model the communication between service point and the customer. Use timer events to model the time constraints.

## Home Appliances Repairs

The process of servicing a broken home appliance starts with an arriving service request. If the customer requests a door to door service, a company customer service employee will pick up the appliance, otherwise the company waits up to 7 business days for the customer to deliver the appliance to a service point. If he doesn't do it in this time – the process ends.

When the appliance is available in the service point, it will be analyzed by a maintenance specialist in order to pinpoint the problem with it. At the same time a customer service employee will check the appliance's warranty. If it is valid, the appliance will be repaired for free. If not, after the problem is identified, the maintenance specialist will have to estimate the repair costs. The customer will be notified of the estimation and will have to make a decision – either to pay the repair costs or get his device back without repairs. He has 7 business days to make that decision. If he makes no decision, then the device will not be repaired.

After the customer decides to pay (or if the device repairs are covered by warranty), the maintenance specialist will repair the device and then test it. Then the customer is notified to pick up his device from the service point. If the customer decided not to pay for the repairs, he is just notified to pick up the device. Then the process ends.