# Business Process Management Systems (2II55) Party store "Drankorgel"

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#### 1 Settings

#### 1.1 Organizational context

The Party store is composed of four groups - the warehouse, store, administration and logistics department. The organizational model of the party store is presented below where the blue color represents groups and the green color represents roles.

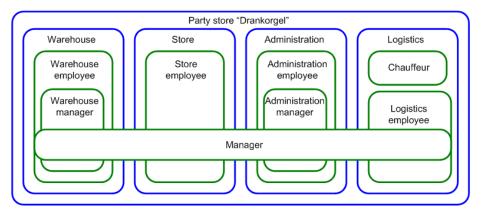


Figure 1: Organizational context of the Party store

#### 1.2 Workflow process A

When someone places an order the good people of "Drankorgel" will prepare the order. Also, for each order there will be some logistics involved. These will be scheduled only when the customer has payed the bill. The customer can directly pay or choose to pay by bill.

When the customer has payed the bill, the order is completed. When the bill is not payed within a week, a reminder will be sent. If the customer does'nt pay after two reminders the order is canceled and the prepared goods are put back into the warehouse.

The preparing of an order will involve picking the order until the entire order is prepared. Then the goods are checked and send if the order is complete. If the order picker made a mistake he will have the opportunity to re-pick until the inspection is ok. If some goods are out of stock and need to be ordered, the order can only be finished upon arrival of the goods.

After preparing the order and receiving the money the goods are ship by the planned logistic means. If the order contained hired wares, that equipment will be retrieved by the company. If, after the inspection, everything seems in order, then the customer will not be bothered until the next order he or she places. If something is wrong, an extra fine has to be paid depending on the damage or missing equipment. If the customer does not pay after getting two reminders, he will be sued and the money will eventually go to the store.

#### 1.3 Workflow process B

Every now and then an employee checks if the warehouse needs to be restocked or if some goods passed their freshness date. This is done by hand and for every item the store sells. If a certain item passed the date, it is thrown away. If not, the next item will be evaluated. If the quantity is low for that item, it will be put on the 'restock list'.

If the employee finished the route in the warehouse and inspected all the goods, the 'restock list' is used to order the items that were running out of stock.

Upon arrival of new goods, the entire order needs to be checked before the item are put in the warehouse. An employee checks for both missing (ordered but not received) and extra (received but not ordered) items. Missing items will be re-ordered and extra goods will be returned.

After checking the order some employee will place the items on the right shelf in the warehouse.

# 2 Protos models

## 2.1 Workflow process A

- **2.1.1** Process perspective to do...
- $\begin{array}{ccc} \textbf{2.1.2} & \textbf{Resource perspective} \\ \textbf{to do...} \end{array}$

### 2.1.3 Task description

$ \begin{array}{c} {\rm cash} \\ {\rm Create} \\ {\rm Create} \\ {\rm bill} \\ {\rm employee} \\ {\rm employee} \\ {\rm is being created.} \\ {\rm The order is processed and the bill for the customer.} \\ {\rm Send bill} \\ {\rm Administrative employee} \\ {\rm manager} \\ {\rm Payment received} \\ {\rm manager} \\ {\rm Payment timeout} \\ {\rm Plan} \\ {\rm Logistics manlogistics 1} \\ {\rm ager} \\ {\rm manager} \\ {\rm Pay logistics 1} \\ {\rm ager} \\ {\rm manager} \\ {\rm Pay logistics 1} \\ {\rm ager} \\ {\rm manager} \\ {\rm have been confirms the logistics after the paymendal base been confirmed.} \\ {\rm Pick} \\ {\rm Warehouse} \\ {\rm manager} \\ {\rm ployee} \\ {\rm Order} \\ {\rm Warehouse} \\ {\rm employee} \\ {\rm manager} \\ {\rm ployee} \\ {\rm Warehouse} \\ {\rm employee} \\ {\rm manager} \\ {\rm manager} \\ {\rm logistics} \\ {\rm manager} \\ {\rm manager} \\ {\rm logistics} \\ {\rm manager} \\ {\rm logistics} \\ {\rm manager} \\ {\rm logistics} \\ {\rm logistics}$	Name	Executor	Description
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	Send fine	Administrative	The employee sends a fine for the damaged or missing
employee goods.			_ ,

Fine	System	
timeout		
Receive	Administrative	The manager has received the money for the fine.
fine	manager	
Paid by	Administrative	The manager has sued the customer and eventually
lawsuit	manager	received the money.

#### 2.1.4 Data perspective

Order specifications:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Order	✓	✓		
Main process	Receive	✓			
	cash				
Main process	Create	✓			
	bill				
Main process	Send bill	✓			
Main process	Payment	✓			✓
	timeout				
Main process	Pick	✓			
	order				
Main process	Inspect	✓			
	order				
Main process	Plan	✓			
	logistics 1				
Main process	Cancel	✓			
	order				
Main process	Put back	✓			✓
	goods				
Main process	Cancel	✓			
	party				
Main process	Refund	✓		✓	
Main process	Plan	✓			
	logistics 2				
Main process	Confirm	✓			
	logistics 2				
Main process	Inspect	✓			
	goods				
Main process	Send fine	✓			✓
Main process	Receive	✓		✓	
	fine				
Main process	Fine	✓			✓
	timeout				
Main process	Paid by	<b>√</b>		✓	
	lawsuit				

# ${\bf Customer\ specifications:}$

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Order	✓	✓		
Main process	Receive	✓			
	cash				
Main process	Create	✓			
	bill				
Main process	Send bill	✓			
Main process	Payment	<b>√</b>			<b>√</b>
	timeout				
Main process	Payment	✓			✓
	received				
Main process	Cancel	✓			
	order				
Main process	Cancel	✓			
	party				
Main process	Refund	✓		✓	
Main process	Send fine	✓			✓
Main process	Receive	✓		✓	
	Fine				
Main process	Fine	✓			✓
	timeout				
Main process	Paid by	✓		<b>√</b>	
	lawsuit				

Order price:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Order	✓	✓		
Main process	Receive	✓			
	cash				
Main process	Create	✓			
	bill				
Main process	Send bill	✓			
Main process	Payment	✓			
	received				
Main process	Payment	✓			✓
	timeout				
Main process	Refund	✓		✓	
Main process	Send fine	✓			✓
Main process	Receive	✓		✓	
	fine				
Main process	Fine	✓			✓
	timeout				
Main process	Paid by	✓		✓	
	lawsuit				

## Ordering list:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Order	✓	✓		
	goods				
Main process	Receive	✓		✓	
	goods				

Order pick list:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Pick	✓	✓		
	order				
Main process	Order	✓			
	goods				
Main process	Receive	✓			
	goods				
Main process	Inspect	✓			
	order				
Main process	AND-join	✓		✓	

Logistics plan:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Plan	✓	✓		
	logistics 1				
Main process	Confirm	✓			
	logistics 1				
Main process	Pay logis-	✓			
	tics 1				
Main process	Deliver	✓		✓	
	goods				
Main process	Plan	✓	✓		
	logistics 2				
Main process	Confirm	✓			
	logistics 2				
Main process	Pay logis-	✓			
	tics 2				
Main process	Pick up	✓		✓	
	goods				

#### Chauffeur id:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Plan	✓	✓		
	logistics 1				
Main process	Confirm	✓			
	logistics 1				
Main process	Pay logis-	✓			
	tics 1				
Main process	Deliver	✓		✓	
	goods				
Main process	Plan	✓	✓		
	logistics 2				
Main process	Confirm	✓			
	logistics 2				
Main process	Pay logis-	✓			
	tics 2				
Main process	Pick up	✓		✓	
	goods				

Jurisdictional rules:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Send fine	✓	✓		
Main process	Receiver	✓			
	fine				
Main process	Fine	✓			
	timeout				
Main process	Paid by	✓		✓	
	lawsuit				

Warehouse employee id:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Inspect	✓	✓	✓	
	order				
Main process	Inspect	✓	✓	✓	
	goods				

Cancelation form:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Cancel	✓	✓		
	order				
Main process	Put back	✓		✓	
	goods				
Main process	Cancel	✓	✓		
	party				
Main process	Refund	✓		<b>√</b>	

# 2.2 Workflow process B

### 2.2.1 Process perspective

to do...

### 2.2.2 Resource perspective

to do...

### 2.2.3 Task description

Name Executor Description	
NameExecutorDescriptionInspectWarehouse em-The employee inspects the goods inside	le the ware-
goods ployee house for both freshness date and quant	
Check Warehouse em- The employee checks the freshness date	
date ployee ular item.	or a partie
Throw Warehouse em- The employee discards of the item if it	expired it's
away ployee date.	expired to b
Update Warehouse The manager updates the inventory after	er an item is
inventory manager discarded.	or an room is
1 discarded.	
Check Warehouse em- The employee checks the quantity of	a particular
quantity ployee item.	a particular
Add to Warehouse em- The employee adds the out of stock iter	m to the or-
order ployee dering list.	111 00 0110 01
AND-join System	
Order Warehouse The manager orders the goods that are of	on the order-
goods manager ing list.	0110 01401
Check Warehouse em- The employee checks the goods after an o	order arrives
goods ployee if it's complete.	order arrives
Check Warehouse em- The employee checks the quality of the	he incoming
quality ployee goods.	ne meoning
Return Warehouse em- The employee returns the goods which	were lacking
goods ployee quality.	were facking
Check Warehouse em- The employee checks if the quantity of	the goods is
quantity ployee correct.	the goods is
Order ex- Warehouse The manager re-orders the missing item	
tra goods manager	
AND- System	
Join	
Put in Warehouse em- The employee puts the incoming good	ls inside the
ware- ployee warehouse.	
house	
Update Warehouse The manager updates the inventory af	fter the new
inventory manager items arrived.	
Search Manager The manager searches for a suitable new	v warehouse.
new	
ware-	
house	
Return to Chauffeur The chauffeur returns the goods to the	supplier be-
supplier cause of the lack of space in the wareho	
Plan & Logistics man- The manager plans and confirms the log	
confirm ager reshipment of the goods.	
logistics	
Pay logis- Logistics man- The manager pays the logistics for the re-	eshipment of
	-
tics ager the goods.	
	e new ware-

### 2.2.4 Data perspective

Inspect Date List:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Inspect	✓	✓		
	goods				
Main process	Check	✓			
	date				
Main process	Throw	✓			✓
	away				
Main process	Update	✓			
	inventory				
	1				
Main process	And-join	✓			

Trow Away Documents:

110w 11way Documents.						
Subprocess	Object	Mandatory	Created	Deleted	Changed	
Main process	Inspect	✓	✓			
	goods					
Main process	Check	✓			✓	
	date					
Main process	Throw	✓				
	away					
Main process	And-join	✓		✓		

Inspect Quantity List:

inspect Quantity List.						
Subprocess	Object	Mandatory	Created	Deleted	Changed	
Main process	Inspect	✓	✓			
	goods					
Main process	Check	✓			✓	
	quantity					
Main process	Add to	✓				
	order					
Main process	And-join	✓		✓		

# Ordering list:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Inspect	✓	✓		
	goods				
Main process	Check	✓			
	quantity				
Main process	Add to	✓			✓
	order				
Main process	And-join	✓			
Main process	Order	✓			
	goods				
Main process	Check	✓			
	goods				
Main process	Check				
	quality				
Main process	Return				
	goods				
Main process	Check	✓			
	quantity				
Main process	Order ex-	<b>√</b>			
	tra goods				
Main process	And-join	<b>√</b>		<b>√</b>	

Complaint form:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Check	✓	✓		
	goods				
Main process	Check	✓			✓
	quality				
Main process	Return	✓			
	goods				
Main process	And-join	<b>√</b>		✓	

#### Item list:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	And-join	✓	✓		
Main process	Put in	✓			<b>√</b>
	ware-				
	house				
Main process	Update	✓		✓	
	inventory				
	2				
Main process	Search	✓			
	new				
	ware-				
	house				
Main process	Return to	✓			
	supplier				
Main process	Plan &	✓			
	confirm				
	logistics				
Main process	Pay logis-				
	tics				
Main process	Deliver	<b>√</b>			
	goods				

Item checklist:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Put in	✓	✓		
	ware-				
	house				
Main process	Update	✓		✓	
	inventory				
	2				

Warehouses list:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Search	✓	✓		
	new				
	ware-				
	house				
Main process	Return to	✓		✓	
	supplier				
Main process	Plan &	✓			
	confirm				
	logistics				
Main process	Deliver	✓		✓	
	goods				

### Logistics documents:

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Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Return to	✓			
	supplier				
Main process	Plan &	<b>√</b>	<b>√</b>		
	confirm				
	logistics				
Main process	Pay logis-	✓			
	tics				
Main process	Deliver	✓		✓	
	goods				

Supplier documents:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Add to	✓			
	order				
Main process	Order	✓			
	goods				
Main process	Check	✓			
	goods				
Main process	Check				
	quality				
Main process	Return	✓			
	goods				
Main process	Check				
	quantity				
Main process	Order ex-	✓			
	tra goods				
Main process	Return to	✓			
	$\operatorname{supplier}$				

Warehouse inventory:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Inspect	✓			
	goods				
Main process	Update	✓			✓
	inventory				
	1				
Main process	Put in	✓			
	ware-				
	house				
Main process	Update	✓			✓
	inventory				
	2				
Main process	Return to	✓			✓
	supplier				
Main process	Search	✓			
	new				
	ware-				
	house				
Main process	Deliver	✓			
	goods				

Financial register:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Order	✓			
	goods				
Main process	Order ex-	✓			
	tra goods				
Main process	Return to	✓			
	supplier				
Main process	Search	✓			
	new				
	ware-				
	house				
Main process	Plan &	✓			
	confirm				
	logistics				
Main process	Pay logis-	✓			✓
	tics				

Employee ID:

Subprocess	Object	Mandatory	Created	Deleted	Changed
Main process	Check	✓			
	date				
Main process	Check	✓			
	quantity				
Main process	Check	✓			
	quality				
Main process	Check	✓			
	quantity				