

EXERCISES AND SOLUTIONS



Exercises to finally take ownership of the logical method **EXPERTIZERS**

The purpose of each exercise is to treat an online event.

Depending on its content and rules of the model you determine the lines of the expected results.

You then manually simulate what the software automatically calculates.

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FRAME EXERCISES

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country		

Rules of user variables:

Variable	Rule

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule

Definition of activities and their rules:

Entity	Activity	Memo rize	Display in results	Condition	Activity_value rule	Activity_cost rule	Activity_text

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 1

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country		
PARIS		PRODUCT_1	1	20		100	SMITH	GB		

Rules of user variables:

Variable	Rule
region	Region = if country = 'FR' then 'FRANCE' else 'EXPORT' endif

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS						

Definition of activities and their rules:

Entity	Activity	Memo rize	Display in results	Condition	Activity_value rule	Activity_cost rule	Activity_text
PARIS	EXPORT_TAX	No	Yes	region = 'EXPORT'	Activity_value = 0	Activity_cost = 150	
PARIS	TRANSPORT	No	Yes		Activity_value = quantity_init	Activity_cost = if region = 'EXPORT' then activity_value * 0.05 else 0.02 endif	
PARIS	SPECIAL_GB	no	Yes	Country = 'GB'	Activity_value = 0	Activity_cost = 20	

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 2

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country		
PARIS		PRODUCT_1	1	20		100	DURAND	FR		

Rules of user variables:

Variable	Rule
region	Region = if country = 'FR' then 'FRANCE' else 'EXPORT' endif

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS						

Definition of activities and their rules:

Entity	Activity	Memo rize	Display in results	Condition	Activity_value rule	Activity_cost rule	Activity_text
PARIS	EXPORT_TAX	No	Yes	region = 'EXPORT'	Activity_value = 0	Activity_cost = 150	
PARIS	TRANSPORT	No	Yes		Activity_value = quantity_init	Activity_cost = if region = 'EXPORT' then activity_value * 0.05 else 0.02 endif	
PARIS	SPECIAL_GB	no	Yes	Country = 'GB'	Activity_value = 0	Activity_cost = 20	
PARIS	TEXTE_1	no	Yes	Country = 'FR'	Activity_value = 0		Activity_text = 'ce client est bien français'

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 3 (Read before Resolution_eurotop_1.pdf pages 11 & 14)

Reading the online event:

Entity	period	Product_code	Event_code	Section_cost		
EUROTOP	2009		311_MANAGEMENT	70000		

Rules of user variables:

Variable	Rule

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
EUROTOP						

Definition of activities and their rules: **Be assured, all lines below are generated automatically using the distribution functions !** To achieve the exercise it must be remembered that the calculated values of pseudo SEC_ and SAV_ activities accumulate with the real activity below.
Variable value_act_administration memorizes the calculated value of activity ADMINISTRATION.

Entity	Activity	Me mo	Dis play	Condition	Activity_value rule	Activity_cost rule	Activity_text rule
EUROTOP	SEC_311_MANAGEMENT_1	No	No	Event_code = '311_MANAGEMENT'	Activity_value = (section_cost * 3) / 7		
EUROTOP	SEC_313_EMPLOYES_1	No	No	Event_code = '311_EMPLOYES'	Activity_value = (section_cost * 2) / 11		
EUROTOP	ADMINISTRATION	Yes	No		Activity_value = 0		
EUROTOP	SAV_ADMINISTRATION_1	No	No	Value_act_administration <> 0	Activity_value = (value_act_administration * 1) / 6		
EUROTOP	COMMERCIALISER	No	Yes		Activity_value = 0		

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text

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What other results would line up more so after processing the event there was another section 313_EMPLOYES for a cost of 110,000?



EXERCISE 4 (Read before Resolution_example_1.pdf pages 8 & 9)

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country	caht	
		PRODUCT_1	1	20		1000	DURAND	FR	15500.80	

Rules of user variables:

Variable	Rule
Cadence_init	variable of init type declared in section 'user internal variables'

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS	PACKAGING					
		PACK_10	2		Diameter = 10	
				10		Cadence = 50
				20		Quantity = quantity * 1.05
		PACK_20	3		Diameter = 20	
				10		Cadence = 35
				20	Country = 'FR'	Cadence = cadence - 2
				30		Quantity = if country = 'FR' then quantity * 1.07 else quantity * 1.10 endif
LONDON	PACKAGING					
		PACK_30	1			
				10		Cadence = 40
				20		Quantity = quantity * 1.05

Definition of activities and their rules:

Entity	Activity	Me mo	Dis play	Condition	Activity_value rule	Activity_cost rule
PARIS	PACKAGING	No	Yes	cadence_ope_PACKAGING <> 0	Activity_value = quantity_ope_PACKAGING / cadence_ope_PACKAGING	Activity_cost = activity_value * 9.75
LONDON	PACKAGING	No	Yes		Activity_value = if cadence_ope_PACKAGING = 0 then 0 else quantity_ope_PACKAGING / cadence_ope_PACKAGING endif	Activity_cost = activity_value * 11.50

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text

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What difference would result in if the line mentioned an event specific entity?
For instance PARIS.



EXERCISE 5

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country	caht	
PARIS		PRODUCT_1	1	20		1000	DURAND	FR	15500.80	

Rules of user variables:

Variable	Rule
Cadence_init	variable of init type declared in section 'user internal variables'

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS	PACKAGING					
		PACK_10	2			
				10		Cadence = 50
				20		Quantity = quantity * 1.05
		PACK_20	3			
				10		Cadence = 35
				20	Country = 'FR'	Cadence = cadence - 2
				30		Quantity = quantity * 1.10

Definition of activities and their rules:

Entity	Activity	Me mo	Displ ay	Condition	Activity_value rule	Activity_cost rule	Activity_text rule
PARIS	RES_PACK	No	Yes		Activity_value = cadence_ope_PACKAGING	Activity_cost = quantity_ope_PACKAGING	
PARIS	QTY_ORDER	No	Yes		Activity_value = quantity_init		

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 6

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country	caht	
PARIS		PRODUCT_1	1	20		1000	DURAND	FR	15500.80	

Rules of user variables:

Variable	Rule
Cadence_init	variable of init type declared in section 'user internal variables'

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS	PACKAGING					
		PACK	5			
				10		Cadence = 50
				20		Quantity = quantity * 1.05
	LINES					
		LINE_1	1			
				10		Cadence = 50
		LINE_2	1			
				10		Cadence = 60
				20		quantity = quantity * 1.01

Definition of activities and their rules:

Entity	Activity	Me mo	Displ ay	Condition	Activity_value rule	Activity_cost rule	Activity_text rule
PARIS	RES_PACK	No	Yes		Activity_value = cadence_ope_PACKAGING	Activity_cost = quantity_ope_PACKAGING	
PARIS	RES_LINES	No	Yes		Activity_value = cadence_ope_LINES	Activity_cost = quantity_ope_LINES	

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 7

Reading the online event:

Entity	period	Product_code	Event_code	Diameter	machine	Quantity_init	Client	Country	caht	
PARIS		PRODUCT_1	1	20	LINE_1	1000	DURAND	FR	15500.80	

Rules of user variables:

Variable	Rule
Cadence_init	variable of init type declared in section 'user internal variables'

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PARIS	PACKAGING					
		PACK	5			
				10		Cadence = 50
				20		Quantity = quantity * 1.05
	LINES					
		LINE_1	1		Machine = '' or machine = 'LINE_1'	
				10		Cadence = 40
		LINE_2	1		Machine = '' or machine = 'LINE_2'	
				10		Cadence = 60
						quantity = quantity * 1.01

Definition of activities and their rules:

Entity	Activity	Me mo	Displ ay	Condition	Activity_value rule	Activity_cost rule	Activity_text rule
PARIS	RES_PACK	No	Yes		Activity_value = cadence_ope_PACKAGING	Activity_cost = quantity_ope_PACKAGING	
PARIS	RES_LINES	No	Yes		Activity_value = cadence_ope_LINES	Activity_cost = quantity_ope_LINES	
PARIS	ERROR_CTY	No	Yes	Country <> 'FR'	Activity_value = 1		Activity_text = ' country code not correct'

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text



EXERCISE 8 (Read before Resolution_example_1.pdf page 9)

Reading the online event:

Entity	period	Product_code	Event_code	Customer_type	channel	Q_activate	Q_advise	Q_verify	Q_finalize	Q_control
PAU	may	court terme		anciens	web	2000	1800	1500	700	90

Rules of user variables:

q_time_init	variable of init type declared in section 'user internal variables'
std_cost	If entity = 'PAU' then 2.99 else if entity = 'PARIS' then 3.2 else 3.5 endif endif

Description of process and rules:

Entity	operation	Object	Nb obj.	Line rule	Condition	rule
PAU	ACTIVATE					
		ACTIVATE	1			
				10		q_time = 1
				20		q_time = q_time + (if customer_type = 'nouveaux' then 2 else 0 endif)
				30	Channel = 'web'	q_time = q_time + 1
	ADVISE					
		ADVISE	1			
				10		q_time = 10
				20		q_time = q_time + (if customer_type = 'nouveaux' then 10 else 5 endif)
				30	Product_code = 'long terme'	q_time = q_time + 10

Definition of activities and their rules:

Entity	Activity	Me mo	Displ ay	Condition	Activity_value rule	Activity_cost rule	Activity_text rule
PAU	ACTIVATE	No	Yes		Activity_value = q_time_ope_ACTIVATE * q_activate	Activity_cost = activity_value * std_cost	
PAU	ADVISE	No	Yes		Activity_value = q_time_ope_ADVISE * q_advise	Activity_cost = activity_value * std_cost	

Your lines results:

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text

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SOLUTIONS 1 - 4

EXERCISE 1

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	EXPORT_TAX	0	150	
PARIS		PRODUCT_1	1	TRANSPORT	100	5	
PARIS		PRODUCT_1	1	SPECIAL_GB	0	20	

EXERCISE 2

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	TRANSPORT	100	2	
PARIS		PRODUCT_1	1	TEXTE_1	0	0	Ce client est bien français

EXERCISE 3

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
EUROTOP	2009		311_MANAGEMENT	COMMERCIALISER	5000	0	
EUROTOP	2009		313_EMPLOYES	COMMERCIALISER	3333,33	0	

EXERCISE 4

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	PACKAGING	32,424	316,136	
LONDON		PRODUCT_1	1	PACKAGING	26,25	301,875	

Response to question: just one line PARIS



SOLUTIONS 5 - 8

EXERCISE 5

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	RES_PACK	39,80	1080	
PARIS		PRODUCT_1	1	QTY_ORDER	1000	0	

EXERCISE 6

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	RES_PACK	50	1050	
PARIS		PRODUCT_1	1	RES_LINES	55	1055,25	

EXERCISE 7

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PARIS		PRODUCT_1	1	RES_PACK	50	1050	
PARIS		PRODUCT_1	1	RES_LINES	40	1050	

EXERCISE 8

Entity	Period	Product_code	Event_code	Activity	Activity_value	Activity_cost	Activity_text
PAU	may	court terme	1	ACTIVATE	4000	11960	
PAU	may	court terme	1	ADVISE	27000	80730	



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Didier RICHE
Software Publisher
+33 (0)6.63.92.20.60
+33 (0)1.47.34.40.23