

Task IM-9.41: Inventory Systems

DEVON Ltd. is a trader for smart phones. DEVON Ltd. is established on 1.07.20X5 by a share issue of 50,000 ordinary shares at a face value 2.00 EUR each. DEVON Ltd. is VAT registered and applies a perpetual inventory system. As the phones are similar to each other they apply a cost formula first-in-first-out.

DEVON Ltd. takes a bank loan of 200,000.00 EUR on 1.09.20X5 and has to pay an annual annuity 15,000.00 EUR which contains an interest portion being 3 %/a based on the amount owed.

DEVON Ltd. buys show room furniture at a cost of acquisition of 75,000.00 EUR (net amount) on 1.09.20X5. The furniture is to be used for 10 years and is written off along straight line method. No residual value is to be considered. The furniture is paid on cash.

On 1.10.20X5 DEVON Ltd. buys 200 smartphones RASPBERRY at a cost of purchase of 85.00 EUR/u (net amount). Furthermore, DEVON Ltd. buys 500 smartphones ORANGE 4 at 150.00 EUR each (net amount). All purchases are paid one accounting period later by DEVON Ltd. (Don't forget payments in 20X6!)

DEVON Ltd. sells during the Christmas sales 150 RASPBERRY and 450 ORANGE 4 smart phones a gross selling price of 212.50 EUR per RASPBERRY and 420.00 EUR per ORANGE 4. All sales are on cash.

In the next year DEVON Ltd. buys the following amount of phones:

Purchase date	RASPBERRY (amount)	ORANGE 4/5 (amount)	Unit purchase cost (VAT exempted)
1.1.20X6	100		86.00
1.1.20X6		400 (O4)	155.00
1.04.20X6	120		90.00
1.04.20X6		400 (O4)	155.00
1.07.20X6	80		92.00
1.07.20X6		200 (O4)	155.00
1.10.20X6	200		78.00
1.10.20X6		600 (O5)	250.00

Exhibit 1: DEVON's purchases in 20X6

DEVON Ltd. sells during the fiscal year 20X6 an amount of 300 RASPBERRY phones at 210.00 EUR/u (gross amount). During each of the 1st three quarters of 20X6 DEVON Ltd. sells 300 ORANGE 4 phones at 451.00 EUR/u (gross amount). On 1.10.20X6 the new ORANGE 5 phone is launched. DEVON Ltd. sells 500 ORANGE 5 phones at 669.00 EUR/u (gross amount) during the last quarter of 20X6. DEVON Ltd. sells 50 ORANGE 4 phones at 390.00 EUR/u (gross amount) during the last quarter of 20X6. For the remaining ORANGE 4 phones DEVON Ltd. agrees on a contract to sell them to a CHINATOWN store at 120.00 EUR/u (gross amount) in January 20X7.

DEVON Ltd. pays 120,000.00 EUR on salaries/a. The labour costs apply pro-rata for 20X5 as well. Expenses for labour commences on 1.07.20X5. Labour is paid on cash. Ignore taxes on labour and social security.

Required: Prepare a statement of financial position and a statement of comprehensive income (COS format) for 20X6. Disclose comparative information for 20X5 therein. Assume all transactions being on cash. IAS 1 with regard to the disclosure of short term liabilities applies for the bank loan's pay-off amount! There is no appropriation of profit to be considered.

Solution:

Observe the bookkeeping entries as below:

(1) Establishment of the business on 1.07.20X5. The amount of issued capital is $50,000 \times 2 = 100,000.00$ EUR.

DR Cash/Bank	100,000.00 EUR
CR Issued Capital	100,000.00 EUR

(2) Taking a bank loan on 1.09.20X5 of 200,000.00 EUR

DR Cash/Bank	200,000.00 EUR
CR Interest Bearing Liabilities	200,000.00 EUR

(3; 4; 5) See the bank loans payment plan below to get the amounts for interest and pay-off:

Year	Opening amount	Interest	Pay-off	Annuity	Rest
20X5	200,000.00	2,000.00	3,000.00	5,000.00	197,000.00
20X6	197,000.00	5,910.00	9,090.00	15,000.00	187,910.00
20X7	187,910.00	5,637.30	9,362.70	15,000.00	178,547.30

Exhibit 2: DEVON Ltd.'s bank loan's payment plan

DR Interest	2,000.00 EUR
CR Cash/Bank	2,000.00 EUR

DR Interest Bearing Liabilities	3,000.00 EUR
CR Cash/Bank	3,000.00 EUR

DR Interest Bearing Liabilities	9,090.00 EUR
CR Accounts Payables	9,090.00 EUR

(6) Acquisition of furniture

DR Property, Plant, and Equipment ...	75,000.00 EUR
DR VAT	15,000.00 EUR
CR Cash/Bank	90,000.00 EUR

(7) Depreciation on the furniture in 20X5 to an extent of 4 months on 31.12.20X5. Depreciation amounts to: $(4/12) \times 7,500 = 2,500.00$ EUR.

DR Depreciation	2,500.00 EUR
CR Accumulated Depreciation	2,500.00 EUR

(8) Purchase on smart phones on 1.10.20X5. As DEVON Ltd. applies a perpetual inventory system the phones are put on stock immediately. The gross amounts are for RASPBERRY: $200 \times 85 \times 120\% = 20,400.00$ EUR and for ORANGE 4: $500 \times 180 = 90,000.00$ EUR. The net amounts are $20,400 / 120\% = 17,000.00$ EUR and $90,000 / 120\% = 75,000.00$ EUR.

DR RASPBERRY Inventory	17,000.00 EUR
DR ORANGE 4 Inventory	75,000.00 EUR
DR VAT	18,400.00 EUR
CR Accounts Payables	110,400.00 EUR

(9) Sales of smartphones on 31.12.20X5. Sales of 150 RASPBERRY phones amount to $150 \times 212.50/120\% = 26,562.50$ EUR and of 450 ORANGE 4 phones amount to $450 \times 420/120\% = 157,500.00$ EUR.

DR Cash/Bank	220,875.00 EUR
CR VAT	36,812.50 EUR
CR Sales	184,062.50 EUR

(10) Disburse of RASPBERRY phones amounts to $150 \times 85 = 12,750.00$ EUR.

DR Cost of Goods Sold (COS)	12,750.00 EUR
CR RASPBERRY Inventory	12,750.00 EUR

(11) Disburse of ORANGE 4 phones amounts to $450 \times 180/120\% = 67,500.00$ EUR.

DR Cost of Goods Sold (COS)	67,500.00 EUR
CR ORANGE 4 Inventory	67,500.00 EUR

(12) Accounting for labour pro rata: $120,000 \times (1/2) = 60,000.00$ EUR.

DR Labour **60,000.00 EUR**

CR Cash/Bank **60,000.00 EUR**

Observe the accounts for DEVON Ltd. after the first accounting period.

Cash/Bank					
D		C		D	
(1)	100,000.00	(3)	2,000.00	c/d	100,000.00
(2)	200,000.00	(4)	3,000.00	b/d	100,000.00
(9)	220,875.00	(6)	90,000.00		
		(12)	60,000.00		
		c/d	365,875.00		
	520,875.00		520,875.00		
b/d	365,875.00				

Interest bearing liabilities					
D		C		D	
(4)	3,000.00	(2)	200,000.00	(3)	2,000.00
(5)	9,090.00			c/d	2,000.00
c/d	187,910.00			b/d	2,000.00
	200,000.00		200,000.00	P&L5	2,000.00
		b/d	187,910.00		

A/P					
D		C		D	
		(5)	9,090.00	(6)	75,000.00
c/d	119,490.00	(8)	110,400.00	c/d	75,000.00
	119,490.00		119,490.00	b/d	75,000.00
		b/d	119,490.00		

VAT					
D		C		D	
(6)	15,000.00	(9)	36,812.50	(7)	2,500.00
(8)	18,400.00			c/d	2,500.00
c/d	3,412.50			b/d	2,500.00
	36,812.50		36,812.50	P&L5	2,500.00
		b/d	3,412.50		

Accumulated depreciation					
D		C		D	
c/d	2,500.00	(7)	2,500.00	(8) 200	17,000.00
		b/d	2,500.00	(10) 150	12,750.00
				c/d 50	4,250.00
					17,000.00
				b/d 50	4,250.00

ORANGE 4 inventory					
D		C		D	
(8) 500	75,000.00	(11) 450	67,500.00		
		c/d 50	7,500.00		
	75,000.00		75,000.00		
b/d 50	7,500.00				

Sales - 20X5					
D		C		D	
c/d	184,062.50	(9)	184,062.50	(10) 150	12,750.00
P&L5	184,062.50	b/d	184,062.50	(11) 450	67,500.00
				c/d	80,250.00
					80,250.00
				b/d	80,250.00

Labour - 20X5					
D		C		D	
(12)	60,000.00	c/d	60,000.00	COS	80,250.00
b/d	60,000.00	P&L5	60,000.00	Interest	2,000.00
				Depr	2,500.00
				Labour	60,000.00
				NP c/d	39,312.50
					184,062.50
				ITL	11,793.75
				b/d	39,312.50
				R/E	27,518.75
					39,312.50

ITL					
D		C		D	
c/d	11,793.75	P&L5	11,793.75	c/d	27,518.75
		b/d	11,793.75	P&L5	27,518.75
				b/d	27,518.75

The financial statements for DEVON Ltd. for 20X5 look as below:

**Devon Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X5**

	[EUR]
Revenue	184,062.50
Other income	
	184,062.50
COS	80,500.00
Labour	60,000.00
Depreciation	2,500.00
Other expenses	
Earnings before int and taxes (EBIT)	41,062.50
Interest	2,000.00
Earnings before taxes (EBT)	39,062.50
Income tax expenses	11,718.75
Deferred taxes	
Earnings after taxes (EAT)	27,343.75

Exhibit 4: DEVON Ltd.'s statement of comprehensive income

**Devon Ltd.'s
STATEMENT of FINANCIAL POSITION**

A		as at 31.12.20X5		C, L	
Non-current assets		[EUR]		Owners' capital	
P, P, E		72,500.00		Share capital	
Intangibles				Reserves	
Financial assets				R/E	
				27,518.75	
Current assets				Liabilities	
Inventory		11,750.00		Interest bear liab	
A/R				A/P	
Prepaid expenses				Provisions	
Cash/Bank		365,875.00		Tax liabilities	
				11,793.75	

Exhibit 5: DEVON Ltd.'s statement of financial position

In the next accounting period 20X6 DEVON Ltd. pays for Income taxes and for VAT and payables to the suppliers:

(A) Payment of income tax liabilities on 1.01.20X6

DR Income Tax Liabilities	11,793.75 EUR
CR Cash/Bank	11,793.75 EUR

(B) Payment of pay-off for the bank loan and suppliers' bills on 1.01.20X6 (together)

DR Accounts Payables	119,490.00 EUR
CR Cash/Bank	119,490.00 EUR

(C) Payment for liabilities resulting from output VAT on 1.01.20X6

DR VAT	3,412.50 EUR
CR Cash/Bank	3,412.50 EUR

(D, E) Payment for the bank loan's interest and transferring next year's pay off to short term liabilities (see payment plan above)

DR Interest	5,910.00 EUR
CR Cash/Bank	5,910.00 EUR

DR Interest Bearing Liabilities	9,362.70 EUR
CR Accounts Payables	9,362.70 EUR

(F) Depreciation on furniture $75,000 / 10 = 7,500.00$ EUR.

DR Depreciation	7,500.00 EUR
CR Accumulated Depreciation	7,500.00 EUR

(G) Purchases of RASPBERRY phones in 20X6: $100 \times 86 = 8,600.00$ EUR, $120 \times 90 = 10,800.00$ EUR, $80 \times 92 = 7,360.00$ EUR, $200 \times 78 = 15,600.00$ EUR.

DR RASPBERRY Inventory	8,600.00 EUR
DR RASPBERRY Inventory	10,800.00 EUR
DR RASPBERRY Inventory	7,360.00 EUR
DR RASPBERRY Inventory	15,600.00 EUR
DR VAT	8,472.00 EUR
CR Accounts Payables	50,832.00 EUR

(H) Purchase of ORANGE 4 phones: $400 \times 155 = 62,000.00$ EUR, $400 \times 155 = 62,000.00$ EUR, $200 \times 155 = 31,000.00$ EUR

DR ORANGE 4 Inventory	62,000.00 EUR
DR ORANGE 4 Inventory	62,000.00 EUR
DR ORANGE 4 Inventory	12,000.00 EUR
DR VAT	31,000.00 EUR
CR Accounts Payables	186,000.00 EUR

(I) Purchase of ORANGE 5 phones: $600 \times 250 = 150,000.00$ EUR.

DR ORANGE 5 Inventory	150,000.00 EUR
DR VAT	30,000.00 EUR
CR Accounts Payables	180,000.00 EUR

(J) Sales of 300 RASPBERRY phones amount to $400 \times 210 / 120\% = 52,500.00$ EUR.

DR Cash/Bank	63,000.00 EUR
CR VAT	10,500.00 EUR
CR Sales	52,500.00 EUR

(K) Sales of 950 ORANGE 4 phones amount to $(3 \times 300 \times 451 + 50 \times 390) / 120\% = 354,500.00$ EUR.

DR Cash/Bank	425,400.00 EUR
CR VAT	70,900.00 EUR
CR Sales	354,500.00 EUR

(L) Sales of ORANGE 5 phones amount to $500 \times 669 / 120\% = 278,750.00$ EUR.

DR Cash/Bank	334,500.00 EUR
CR VAT	55,750.00 EUR
CR Sales	278,750.00 EUR

(M) Disburse of 300 RASPBERRY phones: $4,250 + 8,600 + 10,800 + 30 \times 92 = 26,410.00$ EUR

DR Cost of Goods Sold (COS)	26,410.00 EUR
CR RASPBERRY Inventory	26,410.00 EUR

(N) Disburse of 950 ORANGE 4 phones: $7,500 + 62,000 + 62,000 + 15,500 = 147,000.00$ EUR.

DR Cost of Goods Sold (COS)	147,000.00 EUR
CR ORANGE 4 Inventory	147,000.00 EUR

(O) Disburse of 500 Orange 5 phones: $500 \times 250 = 125,000.00$ EUR.

DR Cost of Goods Sold (COS)	125,000.00 EUR
CR ORANGE 4 Inventory	125,000.00 EUR

(P) The remaining ORANGE 4 phones will be sold below input price which requires a recognition at the lower net selling price. The amount for 100 ORANAGE 4 phones written off is: $100 \times (155 - 120 / 120\%) = 5,500.00$ EUR.

DR Loss on Inventory Valuation	5,500.00 EUR
CR ORANGE 4 Inventory	5,500.00 EUR

(Q) Accounting for labour

DR Labour	120,000.00 EUR
CR Cash/Bank	120,000.00 EUR

Observe the accounts for fiscal year 20X6:

D		Accumulated depreciation	C
c/d	2,500.00	(7)	2,500.00
		b/d	2,500.00
c/d	10,000.00	(F)	7,500.00
	10,000.00		10,000.00
		b/d	10,000.00

D		RASPBERRY inventory	C
(8) 200	17,000.00	(10) 150	12,750.00
		c/d 50	4,250.00
	17,000.00		17,000.00
b/d 50	4,250.00	(M) 50	4,250.00
(G) 100	8,600.00	(M) 100	8,600.00
(G) 120	10,800.00	(M) 120	10,800.00
(G) 80	7,360.00	(M) 30	2,760.00
(G) 200	15,600.00	c/d 250	20,200.00
	46,610.00		46,610.00
b/d 250	20,200.00		

D		ORANGE 4 inventory	C
(8) 500	75,000.00	(11) 450	67,500.00
		c/d 50	7,500.00
	75,000.00		75,000.00
b/d 50	7,500.00	(N) 50	7,500.00
(H) 400	62,000.00	(N) 400	62,000.00
(H) 400	62,000.00	(N) 400	62,000.00
(H) 200	31,000.00	(N) 100	15,500.00
		(P)	5,500.00
		c/d 100	10,000.00
	162,500.00		162,500.00
b/d	10,000.00		

D		ORANGE 5 inventory	C
(I) 600	150,000.00	(O) 500	125,000.00
		c/d 100	25,000.00
	150,000.00		150,000.00
b/d 100	25,000.00		

D		Sales - 20X6	C
		(J)	52,500.00
		(K)	354,500.00
c/d	685,750.00	(L)	278,750.00
	685,750.00		685,750.00
		b/d	685,750.00

D		COS - 20X6	C
(M) 50	4,250.00		
(M) 100	8,600.00		
(M) 120	10,800.00		
(M) 30	2,760.00		
(N) 50	7,500.00		
(N) 400	62,000.00		
(N) 400	62,000.00		
(N) 100	15,500.00		
(O) 500	125,000.00	c/d	298,410.00
	298,410.00		298,410.00
b/d	298,410.00	P&L6	298,410.00

D		Labour - 20X6	C
(Q)	120,000.00	c/d	120,000.00
b/d	120,000.00	P&L6	120,000.00

D		Profit and Loss - 20X6	C
COS	298,410.00	Sales	685,750.00
Interest	5,910.00		
Depr	7,500.00		
Labour	120,000.00		
Loss	5,500.00		
NP c/d	248,430.00		
	685,750.00		685,750.00
ITL	74,529.00	b/d	248,430.00
R/E	173,901.00		
	248,430.00		248,430.00

D		ITL	C
c/d	11,793.75	P&L5	11,793.75
(A)	11,793.75	b/d	11,793.75
c/d	74,529.00	P&L6	74,529.00
	86,322.75		86,322.75
		b/d	74,529.00

D		R/E	C
c/d	27,518.75	P&L5	27,518.75
		b/d	27,518.75
c/d	201,419.75	P&L6	173,901.00
	201,419.75		201,419.75
		b/d	201,419.75

D		Loss on inventory valuation	C
(P)	5,500.00	c/d	5,500.00
b/d	5,500.00	P&L6	5,500.00

Exhibit 6: DEVON Ltd.'s accounts (continued)

See the DEVON Ltd.'s financial statements below:

**Devon Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X6**

	[EUR]
Revenue	685,750.00
Other income	
	685,750.00
COS	298,410.00
Labour	120,000.00
Depreciation	7,500.00
Other expenses	5,500.00
Earnings before int and taxes (EBIT)	254,340.00
Interest	5,910.00
Earnings before taxes (EBT)	248,430.00
Income tax expenses	74,529.00
Deferred taxes	
Earnings after taxes (EAT)	173,901.00

Exhibit 7: DEVON Ltd.'s statement of comprehensive income

**Devon Ltd.'s
STATEMENT of FINANCIAL POSITION
as at 31.12.20X6**

A			C, L
<i>Non-current assets</i>	[EUR]	<i>Owners' capital</i>	[EUR]
P, P, E	65,000.00	Share capital	100,000.00
Intangibles		Reserves	
Financial assets		R/E	201,419.75
<i>Current assets</i>		<i>Liabilities</i>	
Inventory	55,200.00	Interest bear liab	178,547.30
A/R		A/P	493,872.70
Prepaid expenses		Provisions	
Cash/Bank	928168,75	Tax liabilities	74,529.00
	120,200.00		1,048,368.75

Exhibit 8: DEVON Ltd.'s statement of financial position