

EXERCISE AT HOME: MODERATELY DIFFICULT REPORTS WITH COMPARISON ACROSS AGGREGATION LEVELS

Sales(Customer, Product, Brand, Date, City, Region, Area, Quantity, Revenue, Margin)

Revenue by Brand and Product January 2008				
Brand	Product	Revenue (€)	Percent of Brand Revenue	Percent of Total Revenue
M1	P1	175,000	45%	21%
	P2	96,000	25%	12%
	P3	114,000	30%	14%
M1	All products	385,000	100%	47%
M2	P4	102,400	23%	12%
	P5	96,200	22%	12%
	P6	124,000	28%	15%
	P7	120,000	27%	14%
M2	All products	442,600	100%	53%
All brands		627,000		100%

EXERCISE AT HOME: SOLUTION USING LAG-LEAD (and NO JOIN)

Sales(Customer, Product, Brand, Date, City, Region, Area, Quantity, Revenue, Margin)

Comparison between Revenue by Brand and by Product 2009 – 2008				
Brand	Product	Revenue (€) 2009	Revenue (€) 2008	Delta (%)
B1	P1	2 100	13 560	-546
	P2	3 720	23 640	-535
	P3	15 300	20 340	-33
B2	P4	12 600	1 440	89
	P5	22 500	2 100	91
	P6	48 300		100

Delta = 100 x (Revenue2009 - Revenue2008)/Revenue2009

A product may have been sold in one year, but not in the other !