DWH – Task Bonus

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# Task 1

Анализ максимального, минимального и итогового объема продаж в отчете ниже:

* декабрь 2000 года;
* два канала: Интернет и прямые продажи;
* все страны.

Создайте запрос с использованием Oracle SQL for Aggregation и создайте тот же отчет (результаты экспорта в Excel).

select

(case when grouping (tm.calendar\_month\_desc)=1 then 'GRAND\_TOTAL' else tm.calendar\_month\_desc end) as year\_month,

(case when grouping (ch.channel\_desc)=1 and grouping (tm.calendar\_month\_desc)=0 then 'Total by Channels' else ch.channel\_desc end) as channel,

(case when grouping (cn.country\_name)=1 and grouping (ch.channel\_desc)=0 and grouping (tm.calendar\_month\_desc)=0 then ch.channel\_desc||' Total by States' else cn.country\_name end) as country,

to\_char(round(max(sl.amount\_sold)), '9,999,999') as max\_sales$,

to\_char(round(min(sl.amount\_sold)), '9,999,999') as min\_sales$,

to\_char(round(sum(sl.amount\_sold)), '9,999,999') as sales$

from sh.sales sl

join sh.times tm on sl.time\_id = tm.time\_id

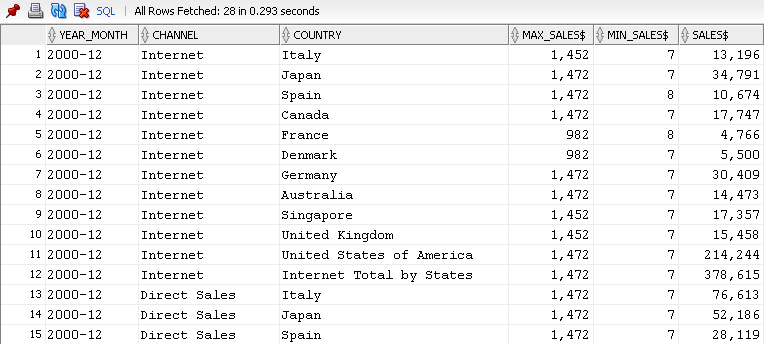
join sh.channels ch on sl.channel\_id = ch.channel\_id

join sh.customers cs on sl.cust\_id = cs.cust\_id

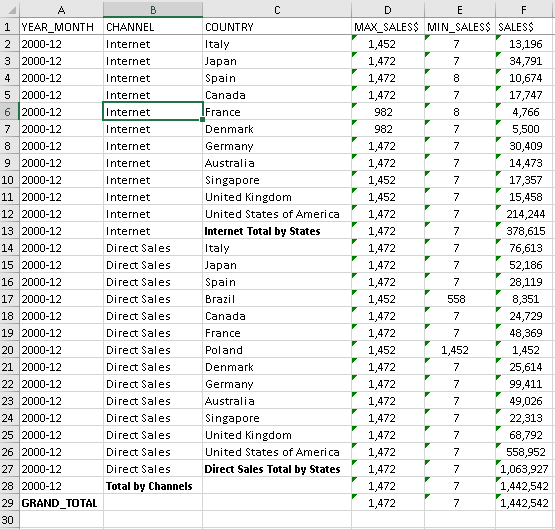
join sh.countries cn on cs.country\_id = cn.country\_id

where calendar\_month\_desc = '2000-12' and channel\_desc in ('Internet', 'Direct Sales')

group by rollup(tm.calendar\_month\_desc, ch.channel\_desc, cn.country\_name);







# Task 2

Напишите запрос для формирования отчёта о продажах в Азии всех продуктов из категории Photo за 2000 год по кварталам. Вычислите итоговые суммы (TOTAL и YEAR\_SUM).

with dat as

(select pr.prod\_name,

(case when tm.calendar\_quarter\_number=1 then sl.amount\_sold else null end) as q1,

(case when tm.calendar\_quarter\_number=2 then sl.amount\_sold else null end) as q2,

(case when tm.calendar\_quarter\_number=3 then sl.amount\_sold else null end) as q3,

(case when tm.calendar\_quarter\_number=4 then sl.amount\_sold else null end) as q4,

sl.amount\_sold as year\_sum

from sh.sales sl

join sh.times tm on sl.time\_id = tm.time\_id

join sh.customers cs on sl.cust\_id = cs.cust\_id

join sh.countries cn on cs.country\_id = cn.country\_id

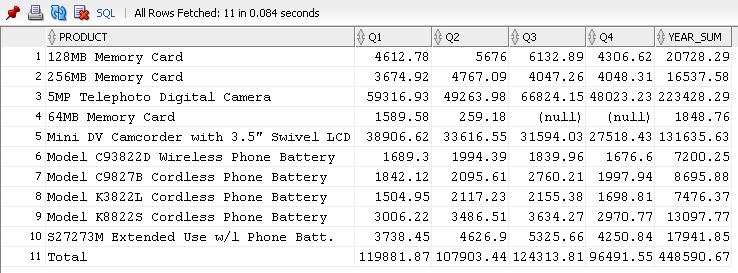
join sh.products pr on sl.prod\_id = pr.prod\_id

where pr.prod\_category\_desc = 'Photo' and tm.calendar\_year = '2000' and cn.country\_region = 'Asia')

select nvl(prod\_name,'Total') as product, sum(q1) as q1, sum(q2) as q2, sum(q3) as q3, sum(q4) as q4, sum (year\_sum) as

from dat

group by rollup (prod\_name);



# Task 3

Напишите запрос для формирования отчёта о продажах в Азии всех продуктов из категории Photo за 2000 год по кварталам. Вычислите итоговые суммы (TOTAL и YEAR\_SUM).

Я применила функцию Pivot к заданию 2, результат по данным тот же, производительность немного упала.

with dat as

(select pr.prod\_name, sl.amount\_sold, tm.calendar\_quarter\_number

from sh.sales sl

join sh.times tm on sl.time\_id = tm.time\_id

join sh.customers cs on sl.cust\_id = cs.cust\_id

join sh.countries cn on cs.country\_id = cn.country\_id

join sh.products pr on sl.prod\_id = pr.prod\_id

where pr.prod\_category\_desc = 'Photo' and tm.calendar\_year = '2000' and cn.country\_region = 'Asia'),

piv as

(select \* from dat

pivot

(sum(dat.amount\_sold)

for calendar\_quarter\_number

in(1 as q1, 2 as q2, 3 as q3, 4 as q4))

order by 1)

select (case when grouping (prod\_name)=1 then 'Total' else prod\_name end) as prod\_name,

sum(q1) as q1, sum(q2) as q2, sum(q3) as q3, sum(q4) as q4, nvl(sum(q1),0)+nvl(sum(q2),0)+nvl(sum(q3),2)+nvl(sum(q4),0) as year\_sum

from piv

group by rollup (prod\_name)

;

