Report. Bonus

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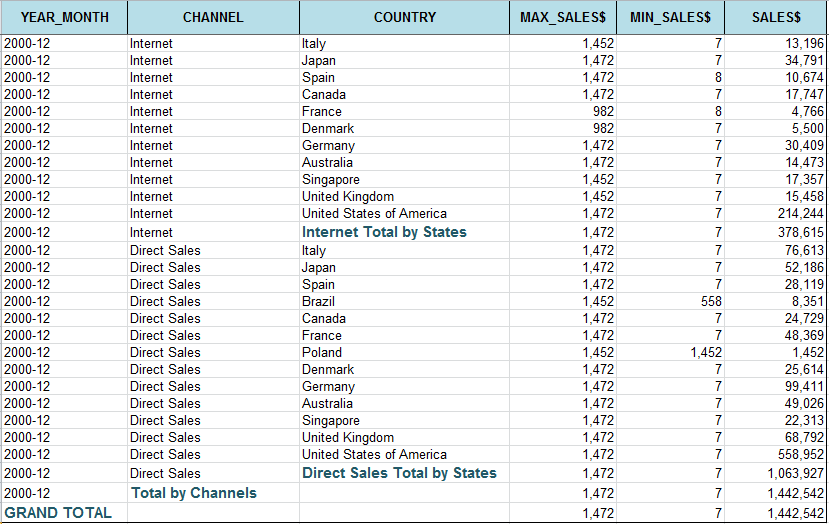
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# Task 1

Analyze max, min and summary sales in the report below by:

* December 2000;
* Two channels: Internet and Direct Sales;
* All States.

Build the query using Oracle SQL for Aggregation and design the same report (export results to Excel).



Скрипт на выполнение задания:

SELECT CASE

WHEN GROUPING\_ID (TIMES.CALENDAR\_MONTH\_DESC,CHANNELS.CHANNEL\_DESC,COUNTRIES.COUNTRY\_NAME) = 7

THEN 'GRAND TOTAL'

ELSE TIMES.CALENDAR\_MONTH\_DESC

END YEAR\_MONTH,

CASE

WHEN GROUPING\_ID (TIMES.CALENDAR\_MONTH\_DESC,CHANNELS.CHANNEL\_DESC,COUNTRIES.COUNTRY\_NAME) = 3

THEN 'Total by Channels'

ELSE CHANNELS.CHANNEL\_DESC

END CHANNEL,

CASE

WHEN GROUPING\_ID (TIMES.CALENDAR\_MONTH\_DESC,CHANNELS.CHANNEL\_DESC,COUNTRIES.COUNTRY\_NAME) = 1

THEN CHANNELS.CHANNEL\_DESC || ' Total by Sales'

ELSE COUNTRIES.COUNTRY\_NAME

END COUNTRY,

TO\_CHAR(MAX(AMOUNT\_SOLD),'9,999') "MAX\_SALES$",

TO\_CHAR(MIN(AMOUNT\_SOLD),'9,999') "MIN\_SALES$",

TO\_CHAR(SUM(AMOUNT\_SOLD),'9,999,999') "SALES$"

FROM TIMES,

SALES,

CHANNELS,

COUNTRIES,

CUSTOMERS

WHERE SALES.TIME\_ID=TIMES.TIME\_ID and

SALES.CUST\_ID=CUSTOMERS.CUST\_ID and

SALES.CHANNEL\_ID=CHANNELS.CHANNEL\_ID and

TIMES.CALENDAR\_MONTH\_DESC='2000-12' and

CHANNELS.CHANNEL\_DESC in ('Internet', 'Direct Sales') and

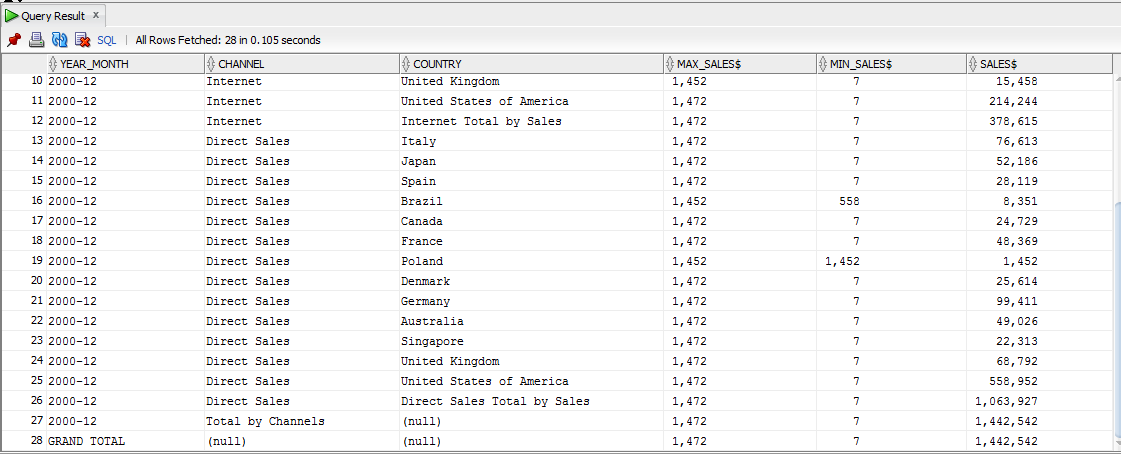
CUSTOMERS.COUNTRY\_ID=COUNTRIES.COUNTRY\_ID

GROUP BY ROLLUP (TIMES.CALENDAR\_MONTH\_DESC,

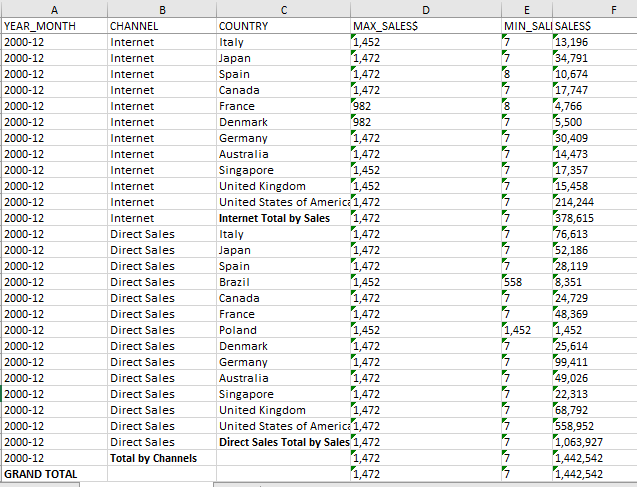
CHANNELS.CHANNEL\_DESC,

COUNTRIES.COUNTRY\_NAME);

Результат выполнения в Oracle:

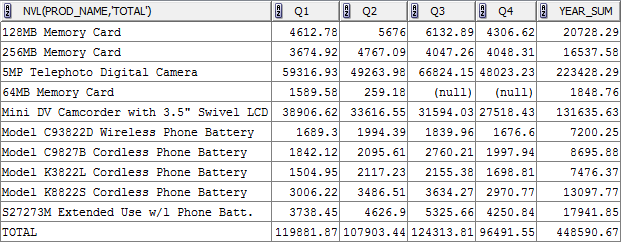


Результат экспорта в excel:



# 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).



Скрипт на выполнение данной задачи:

SELECT NVL(PROD\_NAME,'TOTAL') AS PRODUCT\_NAME,

SUM(Q1) AS Q1,

SUM(Q2) AS Q2,

SUM(Q3) AS Q3,

SUM(Q4) AS Q4,

SUM(YEAR\_SUM) AS YEAR\_SUM

FROM

(SELECT DISTINCT PRODUCTS.PROD\_NAME,

NTH\_VALUE(SUM(AMOUNT\_SOLD),1) OVER (PARTITION BY PRODUCTS.PROD\_NAME ORDER BY TIMES.CALENDAR\_QUARTER\_NUMBER ASC RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) AS Q1,

NTH\_VALUE(SUM(AMOUNT\_SOLD),2) OVER (PARTITION BY PRODUCTS.PROD\_NAME ORDER BY TIMES.CALENDAR\_QUARTER\_NUMBER ASC RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) AS Q2,

NTH\_VALUE(SUM(AMOUNT\_SOLD),3) OVER (PARTITION BY PRODUCTS.PROD\_NAME ORDER BY TIMES.CALENDAR\_QUARTER\_NUMBER ASC RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) AS Q3,

NTH\_VALUE(SUM(AMOUNT\_SOLD),4) OVER (PARTITION BY PRODUCTS.PROD\_NAME ORDER BY TIMES.CALENDAR\_QUARTER\_NUMBER ASC RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) AS Q4,

SUM(SUM(AMOUNT\_SOLD)) OVER (PARTITION BY PRODUCTS.PROD\_NAME) AS YEAR\_SUM

FROM PRODUCTS,

TIMES,

SALES,

COUNTRIES,

CUSTOMERS

WHERE SALES.TIME\_ID=TIMES.TIME\_ID and

SALES.CUST\_ID=CUSTOMERS.CUST\_ID and

SALES.PROD\_ID=PRODUCTS.PROD\_ID and

CUSTOMERS.COUNTRY\_ID=COUNTRIES.COUNTRY\_ID and

PRODUCTS.PROD\_CATEGORY='Photo' and

TIMES.CALENDAR\_YEAR=2000 and

COUNTRIES.COUNTRY\_SUBREGION='Asia'

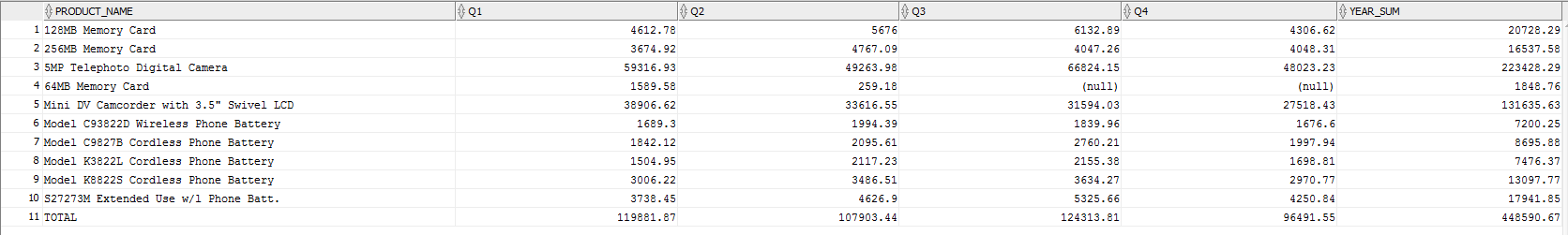
GROUP BY PRODUCTS.PROD\_NAME,

TIMES.CALENDAR\_QUARTER\_NUMBER

)

GROUP BY ROLLUP(PROD\_NAME);

Результат выполнения в Oracle:



# Task 3

Написать запрос, использующий PIVOT.

SELECT \*

FROM

(SELECT COUNTRIES.COUNTRY\_REGION,

PRODUCTS.PROD\_CATEGORY,

AMOUNT\_SOLD

FROM PRODUCTS,

TIMES,

SALES,

COUNTRIES,

CUSTOMERS

WHERE SALES.TIME\_ID=TIMES.TIME\_ID and

SALES.CUST\_ID=CUSTOMERS.CUST\_ID and

SALES.PROD\_ID=PRODUCTS.PROD\_ID and

CUSTOMERS.COUNTRY\_ID=COUNTRIES.COUNTRY\_ID)

PIVOT (SUM(AMOUNT\_SOLD) AS SUMS

FOR (PROD\_CATEGORY) IN (('Electronics') AS Electronics,

('Hardware') AS Hardware,

('Peripherals and Accessories') AS Peripherals\_and\_Accessories,

('Photo') AS Photo,

('Software/Other') AS Software\_Other

));

Результат выполнения в Oracle:

