## Task 01: Create Ad Hoc SQL FIRST\_VALUE, LAST\_VALUE

SELECT month

, brand

, TO\_CHAR ( profit

, '$99,999,999,999' )

AS profit

FROM ( SELECT EXTRACT ( MONTH FROM event\_dt ) AS month

, brand

, SUM ( price - cost ) AS profit

, FIRST\_VALUE ( SUM ( price - cost ) )

OVER (PARTITION BY EXTRACT ( MONTH FROM event\_dt ) ORDER BY SUM ( price - cost ) DESC)

AS max\_profit\_in\_month

, LAST\_VALUE (

SUM ( price - cost )

)

OVER ( PARTITION BY EXTRACT ( MONTH FROM event\_dt )

ORDER BY SUM ( price - cost ) DESC

ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING )

AS min\_profit\_in\_month

FROM contracts

WHERE cost < price

AND customer\_country LIKE 'Belarus'

AND EXTRACT ( YEAR FROM event\_dt ) = :year

GROUP BY EXTRACT ( MONTH FROM event\_dt )

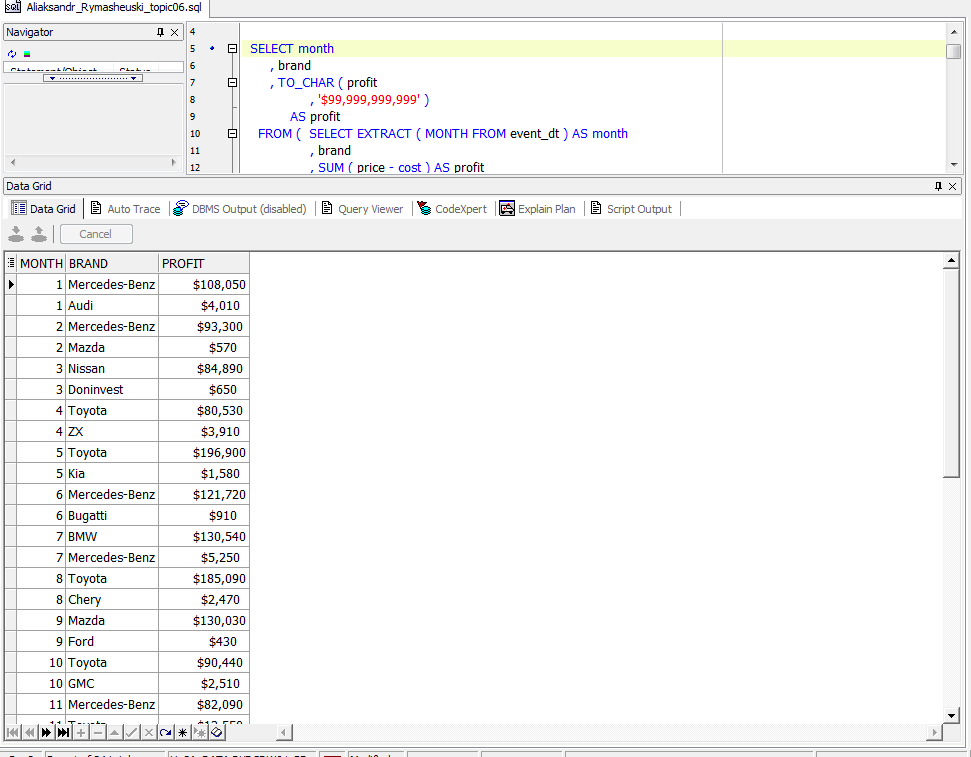
, brand)

WHERE profit = max\_profit\_in\_month

OR profit = min\_profit\_in\_month

ORDER BY month

, profit DESC;



## Task 02: Create Ad Hoc SQL RANK, DENSE\_RANK, ROWNUM

SELECT DECODE ( rn, 1, "Year", '' ) AS "Year"

, rn AS "N/N"

, brand

, quantity\_sold

FROM ( SELECT EXTRACT ( YEAR FROM event\_dt ) AS "Year"

, brand

, COUNT ( brand ) AS quantity\_sold

, ROW\_NUMBER ( ) OVER (PARTITION BY EXTRACT ( YEAR FROM event\_dt ) ORDER BY COUNT ( brand ) DESC) AS rn

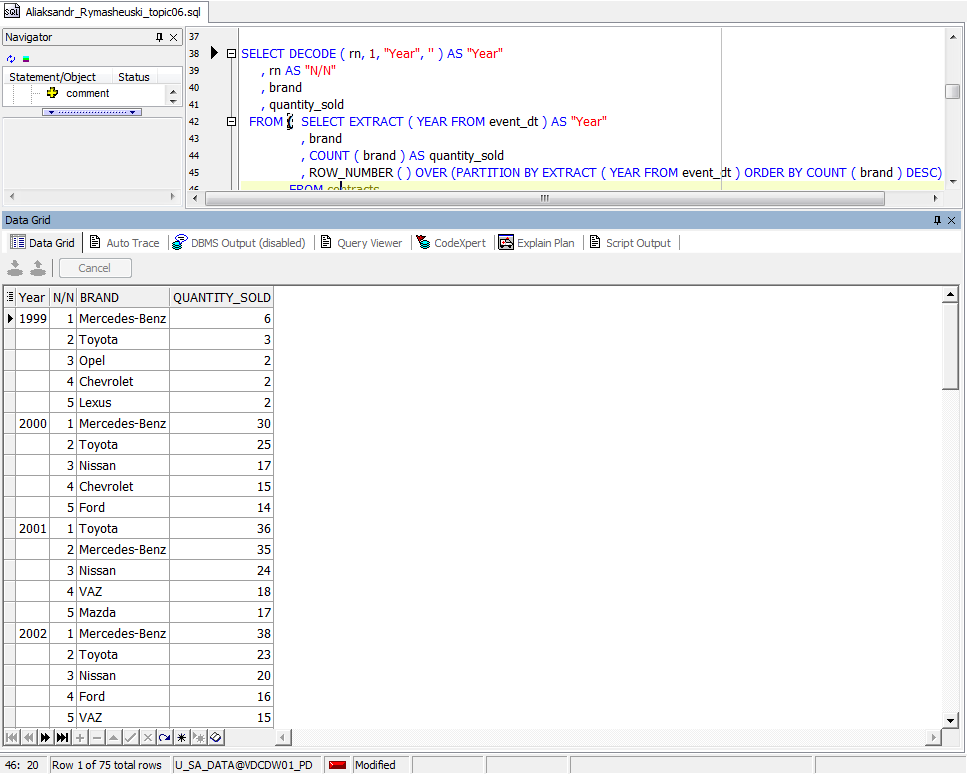
FROM contracts

WHERE customer\_city LIKE 'Minsk'

GROUP BY EXTRACT ( YEAR FROM event\_dt )

, brand)

WHERE rn < 6;



SELECT DECODE ( "Rank", 1, "Year", '' ) AS "Year"

, brand

, TO\_CHAR ( profit

, '$99,999,999,999' )

AS profit

FROM ( SELECT EXTRACT ( YEAR FROM event\_dt ) AS "Year"

, brand

, SUM ( price - cost ) AS profit

, DENSE\_RANK ( ) OVER (PARTITION BY EXTRACT ( YEAR FROM event\_dt ) ORDER BY SUM ( price - cost ) DESC)

AS "Rank"

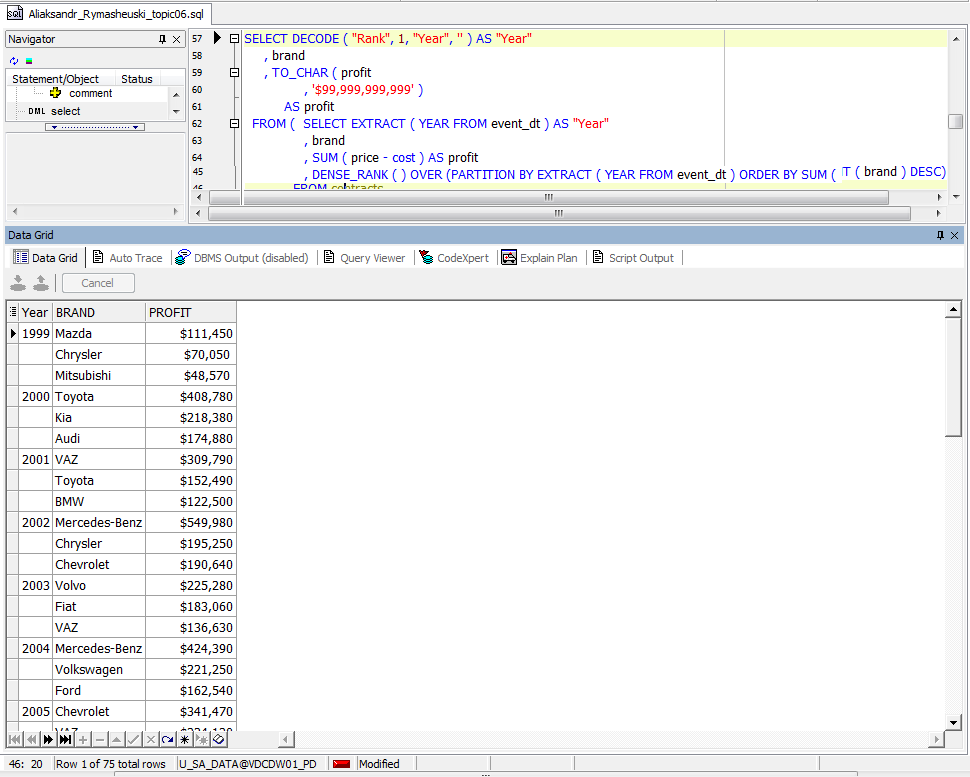
FROM contracts

WHERE customer\_city LIKE 'Minsk'

GROUP BY EXTRACT ( YEAR FROM event\_dt )

, brand)

WHERE "Rank" < 4;



## Task 03: Create Ad Hoc SQL AGGREAGATE FUNCS

SELECT DECODE ( r, 1, month, '' ) AS "Month"

, brand

, TO\_CHAR ( profit

, '$99,999,999,999' )

AS profit

, TO\_CHAR ( ( profit - max\_profit\_in\_month )

, '$99,999,999,999' )

AS "Profit-MAX profit"

, TO\_CHAR ( ( profit - min\_profit\_in\_month )

, '$99,999,999,999' )

AS "Profit-MIN profit"

, TO\_CHAR ( ROUND ( profit - avg\_profit\_in\_month )

, '$99,999,999,999' )

AS "Profit-AVG profit"

FROM ( SELECT EXTRACT ( MONTH FROM event\_dt ) AS month

, brand

, SUM ( price - cost ) AS profit

, MAX ( SUM ( price - cost ) ) OVER (PARTITION BY EXTRACT ( MONTH FROM event\_dt )) AS max\_profit\_in\_month

, MIN ( SUM ( price - cost ) ) OVER (PARTITION BY EXTRACT ( MONTH FROM event\_dt )) AS min\_profit\_in\_month

, AVG ( SUM ( price - cost ) ) OVER (PARTITION BY EXTRACT ( MONTH FROM event\_dt )) AS avg\_profit\_in\_month

, RANK ( ) OVER (PARTITION BY EXTRACT ( MONTH FROM event\_dt ) ORDER BY SUM ( price - cost ) DESC) AS r

FROM contracts

WHERE cost < price

AND customer\_country LIKE 'Belarus'

AND EXTRACT ( YEAR FROM event\_dt ) = :year

GROUP BY EXTRACT ( MONTH FROM event\_dt )

, brand)

WHERE profit - avg\_profit\_in\_month > 0

ORDER BY month

, profit DESC;

