

## Заявки от 8 занятие

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```
SELECT
    vt.customer_id
,   MIN(vt.total) min_total
,   ROUND(AVG(vt.total),2) avg_total
,   MAX(vt.total) max_total
,   MIN(vt.n_items) min_items
,   ROUND(AVG(vt.n_items)) AVG_items
,   MAX(vt.n_items) max_items
-- допълнително --
,   SUM(vt.total) grand_total
,   SUM(vt.n_items) total_items
,   COUNT(*) n_orders
FROM
    (SELECT
        t1.customer_id
      ,   t1.order_id
      ,   SUM(t2.unit_price * t2.quantity) total
      ,   COUNT(*) n_items
    FROM
        orders t1
        INNER JOIN
        order_details t2
        ON t2.order_id = t1.order_id
    -- WHERE
    --     t1.customer_id = 1 -- ALFKI
    GROUP BY
        t1.customer_id
      ,   t1.order_id
    ) vt
GROUP BY
    vt.customer_id
ORDER BY
    grand_total DESC
```

```
SELECT
    cm.customer_code
-- orders
,   NVL(MIN(vt.total),0) min_total
,   NVL(ROUND(AVG(vt.total),2),0) avg_total
,   NVL(MAX(vt.total),0) max_total
-- items
,   NVL(MIN(vt.n_items),0) min_items
,   NVL(ROUND(AVG(vt.n_items),0) AVG_items
,   NVL(MAX(vt.n_items),0) max_items
-- допълнително --
,   NVL(SUM(vt.total),0) grand_total
,   NVL(SUM(vt.n_items),0) total_items
```

```

, COUNT(vt.order_id) n_orders
FROM
  customers cm
    LEFT OUTER JOIN
  (SELECT
    t1.customer_id
  ,   t1.order_id
  ,   SUM(t2.unit_price * t2.quantity) total
  ,   COUNT(*) n_items
FROM
  orders t1
    INNER JOIN
  order_details t2
    ON t2.order_id = t1.order_id
-- WHERE
--   t1.customer_id = 1 -- ALFKI
GROUP BY
  t1.customer_id
,   t1.order_id
) vt
ON vt.customer_id = cm.customer_id
GROUP BY
  cm.customer_code
ORDER BY
  grand_total DESC

```

```

WITH
  sales
AS (SELECT
    t1.customer_id
  ,   t1.order_id
  ,   SUM(t2.unit_price * t2.quantity) total
  ,   COUNT(*) n_items
FROM
  orders t1
    INNER JOIN
  order_details t2
    ON t2.order_id = t1.order_id
-- WHERE
--   t1.customer_id = 1 -- ALFKI
GROUP BY
  t1.customer_id
,   t1.order_id)
SELECT
  cm.customer_code
-- orders
,   NVL(MIN(vt.total),0) min_total
,   NVL(ROUND(AVG(vt.total),2),0) avg_total
,   NVL(MAX(vt.total),0) max_total
-- items
,   NVL(MIN(vt.n_items),0) min_items
,   NVL(ROUND(AVG(vt.n_items),0) AVG_items

```

```
, NVL(MAX(vt.n_items),0) max_items
-- дополнительно --
, NVL(SUM(vt.total),0) grand_total
, NVL(SUM(vt.n_items),0) total_items
, COUNT(vt.order_id) n_orders
FROM
    customers cm
    LEFT OUTER JOIN
    sales vt
    ON vt.customer_id = cm.customer_id
GROUP BY
    cm.customer_code
ORDER BY
    grand_total DESC
```

```
SELECT
    product_id
,    product_name
,    unit_price
FROM
    products
WHERE
    unit_price <= (SELECT
                    AVG(unit_price)
                    FROM
                        products)
ORDER BY
    3 DESC
```

```
SELECT
    customer_id
,    order_id
,    order_date
,    shipped_date
,    ship_country
,    ship_city
FROM
    orders
WHERE
    customer_id IN (SELECT
                    customer_id
                    FROM
                        customers
                    WHERE
                        country = 'Germany'
                    )
```

```

SELECT
    t1.category_id
,   t1.category_name
,   t2.product_name
,   t2.unit_price
FROM
    categories t1
    INNER JOIN
    products t2
    ON t2.category_id = t1.category_id
WHERE
    t2.unit_price <= (SELECT
--                        AVG(ns.unit_price)
                        MEDIAN(ns.unit_price)
FROM
    products ns
WHERE
        ns.category_id = t1.category_id)

ORDER BY
    1
,   4 DESC

```

```

SELECT
    t1.customer_code
,   (SELECT COUNT(*)
        FROM
            orders ns
        WHERE
            ns.customer_id = t1.customer_id
            AND
            EXTRACT(YEAR FROM ns.order_date) = 2014) "2014"
,   (SELECT COUNT(*)
        FROM
            orders ns
        WHERE
            ns.customer_id = t1.customer_id
            AND
            EXTRACT(YEAR FROM ns.order_date) = 2015) "2015"
,   (SELECT COUNT(*)
        FROM
            orders ns
        WHERE
            ns.customer_id = t1.customer_id
            AND
            EXTRACT(YEAR FROM ns.order_date) = 2016) "2016"
,   (SELECT COUNT(*)
        FROM
            orders ns
        WHERE
            ns.customer_id = t1.customer_id ) Total
FROM
    customers t1

```

ORDER BY

1

```

SELECT
    t1.customer_code
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        ns.customer_id = t1.customer_id
        AND
        EXTRACT(YEAR FROM ns.order_date) = 2014) "2014"
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        ns.customer_id = t1.customer_id
        AND
        EXTRACT(YEAR FROM ns.order_date) = 2015) "2015"
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        ns.customer_id = t1.customer_id
        AND
        EXTRACT(YEAR FROM ns.order_date) = 2016) "2016"
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        ns.customer_id = t1.customer_id ) Total
FROM
    customers t1
UNION
SELECT
    NULL
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        EXTRACT(YEAR FROM ns.order_date) = 2014)
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        EXTRACT(YEAR FROM ns.order_date) = 2015)
,   (SELECT COUNT(*)
      FROM
        orders ns
      WHERE
        EXTRACT(YEAR FROM ns.order_date) = 2016)
,   (SELECT COUNT(*)

```

```
FROM
    orders ns) Total
FROM
    DUAL
ORDER BY
    1
```