**CRUD создать, прочитать, обновить, удалить**

Задача 2

SELECT id\_product, name, category, name\_store FROM products\_data\_all

Задача 3

SELECT name, price, name\_store, date\_upd FROM products\_data\_all WHERE category = 'молоко и сливки' AND date\_upd = '2019-06-01'

Задача 4

SELECT

name,

price,

name\_store,

date\_upd

FROM

products\_data\_all

WHERE

category ='молоко и сливки' AND date\_upd IN ('2019-06-08', '2019-06-15', '2019-06-22', '2019-06-29')

Задача 5

SELECT

\*

FROM

transactions

WHERE

date >= '2019-06-01' AND date < '2019-06-02' AND id\_product IN (0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75,76, 77, 78, 80, 81, 82, 83, 84, 86, 88, 89, 90, 91, 92, 93, 95, 96, 97, 98, 99, 100, 102, 103, 104, 105,106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 118, 119, 5, 14, 27, 33, 41, 46, 62, 79, 85, 87, 94, 101, 117)

Задача 6

SELECT

COUNT(\*) AS cnt

FROM

products\_data\_all

Связи между таблицами

Задача 1

SELECT

id\_transaction, products.category, products.name

FROM

transactions

INNER JOIN products ON products.id\_product = transactions.id\_product

ORDER BY id\_transaction

LIMIT 10

Задача 2

SELECT

products.id\_product, products.name, products\_stores AS id\_store

FROM

products

LEFT JOIN products\_stores ON products.id\_product = products\_stores.id\_product

Задача 3

SELECT

transactions.id\_transaction, stores.name\_store, products.category, products.name

FROM

transactions

INNER JOIN products ON transactions.id\_product = products.id\_product

INNER JOIN stores ON transactions.id\_store = stores.id\_store

WHERE

transactions.date > '2019-06-05'

Изменение типов

Задача 1

SELECT

AVG(weight::real) AS average

FROM

products\_data\_all

WHERE units='г'

Группируем данные

Задача 1

SELECT

name\_store,

COUNT(name) AS name\_cnt,

COUNT(DISTINCT name) AS name\_uniq\_cnt

FROM

products\_data\_all

GROUP BY

name\_store

Задача 2

SELECT

category,

max(weight :: real) AS max\_weight

FROM

products\_data\_all

GROUP BY

category

Задача 3

SELECT

name\_store,

AVG(price) AS average\_price,

MAX(price) AS max\_price,

MIN(price) AS min\_price

FROM

products\_data\_all

GROUP BY

name\_store

Задача 4

SELECT

name,

MAX(price) - MIN(price) AS max\_min\_diff

FROM

products\_data\_all

WHERE

date\_upd :: date = '2019-06-10' AND category = 'масло сливочное и маргарин'

GROUP BY

name

Сортируем данные

Задача 1

SELECT

date\_upd::date AS update\_date,

category,

COUNT(name) AS name\_cnt

FROM

products\_data\_all

WHERE

date\_upd::date = '2019-06-05'

GROUP BY

category,

update\_date

ORDER BY

name\_cnt

Задача 2

SELECT

date\_upd::date AS update\_date,

name\_store,

category,

COUNT(DISTINCT name) AS uniq\_name\_cnt

FROM

products\_data\_all

WHERE

date\_upd::date = '2019-06-30'AND name\_store = 'Lentro'

GROUP BY

date\_upd,

name\_store,

category

ORDER BY

uniq\_name\_cnt DESC

Задача 3

SELECT

name,

MAX(price) AS max\_price

FROM

products\_data\_all

GROUP BY

name

ORDER BY

max\_price DESC

LIMIT 5

Обработка данных в группировке

Задача 1

SELECT

name,

MAX(price) AS max\_price

FROM

products\_data\_all

GROUP BY

name

HAVING

MAX(price) > 500

Задача 2

SELECT

date\_upd::date AS update\_date,

name\_store,

COUNT(weight::real) AS name\_cnt

FROM

products\_data\_all

WHERE

units = 'г' AND weight::real > 900 AND date\_upd::date = '2019-06-03'

GROUP BY

update\_date,

name\_store

HAVING

COUNT(name) < 10

Задача 3

SELECT

name\_store,

COUNT(DISTINCT name) AS name\_uniq\_cnt

FROM

products\_data\_all

GROUP BY

name\_store

HAVING COUNT(DISTINCT name) > 30

ORDER BY

name\_uniq\_cnt

LIMIT 3

Операторы и функции для работы с датами

Задача 1

SELECT

EXTRACT(hour FROM date) AS hours

FROM

transactions;

Задача 2

SELECT

EXTRACT(hour FROM date) AS hours,

COUNT(id\_product) AS cnt

FROM

transactions

GROUP BY

hours

ORDER BY

hours

Задача 3

SELECT

EXTRACT(day FROM date) AS days,

COUNT(id\_product) AS cnt

FROM

transactions

GROUP BY

days

ORDER BY

days

Задача 4

SELECT

DATE\_TRUNC('day', date) AS date\_month,

COUNT(id\_product) AS cnt

FROM

transactions

GROUP BY

date\_month

ORDER BY

date\_month

Подзапросы

Задача 1

SELECT

id\_product,

price

FROM

products\_data\_all

WHERE

(category = 'молоко и сливки' AND price > 120) OR

(category = 'масло сливочное и маргарин' AND price > 354)

Задача 2

SELECT

COUNT(DISTINCT user\_id)

FROM

transactions

WHERE

id\_product IN

(SELECT

id\_product

FROM

products\_data\_all

WHERE

(category='молоко и сливки' AND price > 120) OR

(category='масло сливочное и маргарин' AND price > 354));

Задача 3

SELECT

COUNT(DISTINCT id\_transaction) AS transaction\_per\_day,

DATE\_TRUNC('day', date) AS trunc\_date

FROM

transactions

GROUP BY

trunc\_date

Задача 4

SELECT

EXTRACT(week from SUBQ.trunc\_date ) AS week\_number,

AVG(SUBQ.transaction\_per\_day) AS avg\_week\_transaction

FROM

(SELECT

COUNT(distinct id\_transaction) as transaction\_per\_day,

DATE\_TRUNC('day', date) AS trunc\_date

FROM

transactions

GROUP BY

trunc\_date) AS SUBQ

GROUP BY week\_number;

Все ответы: <https://mob25.com/skachat-kurs-python-razrabotchik-ot-yandeks-praktikum-s-otvetami/>