



# Вложенные запросы



# Многообразие условий в SQL-запросах

select \* from skill\_sales\_march where dt in ('2020-03-01','2020-03-02')

dt	manager_id	product_id	cnt
2020-03-01	1	1	5
2020-03-01	2	2	20
2020-03-02	3	3	6
2020-03-02	4	1	20

select \* from skill\_sales\_march where manager\_id<=3

select \* from skill\_sales\_march where product\_id=1 or product\_id=2

dt	manager_id	product_id	cnt
2020-03-01	1	1	5
2020-03-01	2	2	20
2020-03-02	4	1	20
2020-03-05	5	2	4
2020-03-07	2	1	20
2020-03-11	3	2	20
2020-03-25	1	1	20
2020-03-25	2	2	7
2020-03-27	8	1	30
2020-03-28	2	2	50

dt	manager_id	product_id	cnt
2020-03-01	1	1	5
2020-03-01	2	2	20
2020-03-02	3	3	6
2020-03-05	1	3	3
2020-03-07	2	1	20
2020-03-11	3	2	20
2020-03-25	1	4	20
2020-03-25	1	1	20
2020-03-25	2	2	7
2020-03-27	2	4	20

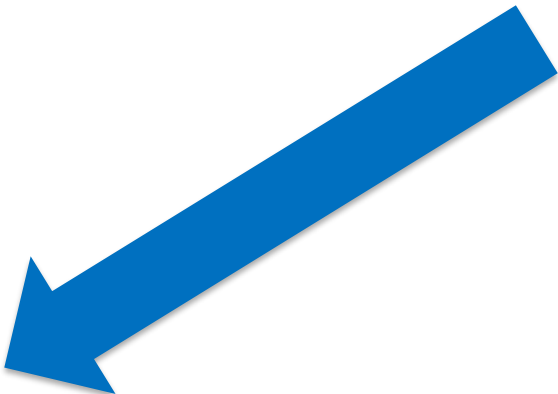
# Условия с подзапросами

select \* from skill\_sales\_march where dt in (..)

dt	manager_id	product_id	cnt
2020-03-01	1	1	5
2020-03-01	2	2	20
2020-03-02	3	3	6
2020-03-02	4	1	20
2020-03-05	5	2	4
2020-03-05	1	3	3
2020-03-07	2	1	20
2020-03-11	3	2	20
2020-03-12	4	3	9
2020-03-25	1	4	20

select dt from skill\_sales\_september

dt
2020-09-01
2020-09-02
2020-09-04
2020-09-05
2020-09-05
2020-09-07
2020-09-02
2020-09-08
2020-09-12
2020-09-14



where dt in (...)

# Условия с подзапросами

```
select * from skill_sales_march where dt in (select dt from skill_sales_september)
```

dt	manager_id	product_id	cnt
2020-03-26	6	3	3
2020-03-27	2	4	20
2020-03-27	8	1	30
2020-03-28	2	2	50
2020-03-29	9	3	76

dt
2020-03-26
2020-03-27
2020-03-28
2020-03-29
2020-04-20
2020-04-22
2020-04-23
2020-04-25
2020-04-26
2020-09-01
...
10 rows of 23

# Условия с подзапросами

```
select dt from skill_sales_september
```

dt
2020-09-01
2020-09-02
2020-09-04
2020-09-05
2020-09-05
2020-09-07
2020-09-02
2020-09-08
2020-09-12
2020-09-14



where dt in (SQL)

```
select top 1 dt from skill_sales_september
```

dt
2020-09-01



where dt = (SQL)

# Колонки с подзапросами

```
select first_name,last_name,(...) cnt_march,(...) cnt_april from skill_managers t1
```



The diagram consists of two blue arrows pointing from the subquery placeholders in the main SQL statement to the subquery boxes below. The first arrow points from '(...) cnt\_march' to the first subquery box, and the second arrow points from '(...) cnt\_april' to the second subquery box.

```
select sum(t2.cnt) from skill_sales_march  
t2 where t2.manager_id=t1.manager_id
```

```
select sum(t3.cnt) from skill_sales_april  
t3 where t3.manager_id=t1.manager_id
```

# Колонки с подзапросами

```
select first_name,last_name,(...) cnt_march,(...) cnt_april from skill_managers t1
```



The diagram shows two blue arrows originating from the subquery placeholders (...) in the main query. One arrow points to the subquery for cnt\_march, and the other points to the subquery for cnt\_april.

```
select sum(t2.cnt) from skill_sales_march  
t2 where t2.manager_id=t1.manager_id
```

```
select sum(t3.cnt) from skill_sales_april  
t3 where t3.manager_id=t1.manager_id
```

# Колонки с подзапросами

```
select first_name,last_name,(...) cnt_march,(...) cnt_april from skill_managers t1
```

```
select sum(t2.cnt) from skill_sales_march  
t2 where t2.manager_id=t1.manager_id
```

```
select sum(t3.cnt) from skill_sales_april  
t3 where t3.manager_id=t1.manager_id
```

first_name	last_name	cnt_march	cnt_april
Ellis	Forbes	48	10
Piter	Robinson	117	4
Piter	Graham	26	15
Abbie	Peters	29	27
Ellis	Cisneros	4	29
Darryl	Mathis	3	36
Kaiden	Wall	null	6
Ellis	Chen	30	33
Paul	Lucas	76	15
Max	Kaiser	null	null

10 rows



# Запрос из запроса

```
select * from (select * from ...) t1
```

```
select * from  
  skill_sales_march  
union all  
select * from skill_sales_april
```

dt	manager_id	product_id	cnt
2020-03-01	1	1	5
2020-03-01	2	2	20
2020-03-02	3	3	6
2020-03-02	4	1	20
2020-03-05	5	2	4
2020-03-05	1	3	3
2020-03-07	2	1	20
2020-03-11	3	2	20
2020-03-12	4	3	9
2020-03-25	1	4	20
...			

10 rows of 38

# Практика к уроку

1. Напишите запрос к таблице **skill\_sales\_april**, получающий все столбцы. Наложите условие на значения колонки **product\_id**, получающее значения из таблицы **skill\_product** подзапросом, в котором задаётся условие **product\_name='Motherboard'** в явном виде.
2. Напишите запрос к таблице **skill\_product**. Выведите следующие столбцы:
  - название товаров (**product\_name**),
  - количество продаж данного товара за март (подзапрос к таблице **skill\_sales\_march**),
  - количество продаж данного товара за апрель (подзапрос к таблице **skill\_sales\_april**).