LeetCode SQL 50

Sorting and Grouping

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Number of Unique Subjects Taught by Each Teacher

Input:

Teacher table:

teacher_id	subject_id	dept_id
1	2	3
1	2	4
1	3	3
2	1	1
2	2	1
2	3	1
2	4	1

Output:

teacher_id	cnt
1	2
2	4

```sql
Select
  teacher_id,
  Count(Distinct subject_id) As cnt
From
  Teacher
Group By
  teacher_id;
```

1141. User Activity for the Past 30 Days I

Input:

Activity table:

user_id	session_id	activity_date	activity_type
1	1	2019-07-20	open_session
1	1	2019-07-20	scroll_down
1	1	2019-07-20	end_session
2	4	2019-07-20	open_session
2	4	2019-07-21	send_message
2	4	2019-07-21	end_session
3	2	2019-07-21	open_session
3	2	2019-07-21	send_message
3	2	2019-07-21	end_session
4	3	2019-06-25	open_session
4	3	2019-06-25	end_session

Output:

day	active_users
2019-07-20	2
2019-07-21	2

```sql
Select
  activity_date as day,
  Count(Distinct user_id) As active_users
From
  Activity
Where
  activity_date between Date_sub('2019-07-27', interval 29 day)
  AND '2019-07-27'
Group By
  activity_date;
```

1070. Product Sales Analysis III

Input:

Sales table:

sale_id	product_id	year	quantity	price
1	100	2008	10	5000
2	100	2009	12	5000
7	200	2011	15	9000

Product table:

product_id	product_name
100	Nokia
200	Apple
300	Samsung

Output:

product_id	first_year	quantity	price
100	2008	10	5000
200	2011	15	9000

```
Select
  product_id,
  year As first_year,
  quantity,
  price
From Sales
Where
  (product_id, year) in (
    select
      product_id,
      min(year)
    from Sales
    Group by product_id);
```

596. Classes More Than 5 Students

Input:
Courses table:

student	class
A	Math
B	English
C	Math
D	Biology
E	Math
F	Computer
G	Math
H	Math
I	Math

Output:

class
Math

```sql
Select
  class
From
  Courses
group by
  class
having
  count(class)>=5;
```

1729. Find Followers Count

Input:

Followers table:

user_id	follower_id
0	1
1	0
2	0
2	1

Output:

user_id	followers_count
0	1
1	1
2	2

```sql
Select
  user_id,
  Count(follower_id) As followers_count
From
  Followers
Group By
  user_id
  Order By
  user_id;
```

619. Biggest Single Number

Input:

MyNumbers table:

num
8
8
3
3
1
4
5
6

Output:

num
6

```sql
Select
  max(num) As num
From
  MyNumbers
Where num IN (
    Select num
    from
      MyNumbers
    group by num
    having
      Count(num)= 1);
```

1045. Customers Who Bought All Products

Input:

Customer table:

customer_id	product_key
1	5
2	6
3	5
3	6
1	6

Product table:

product_key
5
6

Output:

customer_id
1
3

```sql
Select
  customer_id
from
  Customer
group by
  customer_id
having
  count(distinct product_key)
  =(select
      count(*)
    from
      Product);
```