Assignment 3: Queries and Window Function
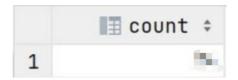
Deadline：April. 18th

1. Please find how many stations are there on line 3, not on line 4, and the latitude is above the average?

    请求出在三号线上不在四号线上，并且纬度在平均之上的车站有多少个?

count
1

2. Please find out the most frequently-used letter of English names' First letter of stations, and then give the ranking of the number of stations containing this letter by district (from high to low). When different districts have the same number, you can take the default order in postgresql as the order of these districts.

    请找出所有地铁站的英文名首字母中出现频率最高的字母，然后按区给出含有这个字母的地铁站数量的排名(从高到低)。不同区含有相同数值的情况时，按照postgresql默认排序即可。

	district	cnt
1	Nanshan	
2	Futian	
3	Bao'an	
4	Longgang	
5	Longhua	
6	Luohu	

3. In Longhua, Baoan, and Nanshan 3 districts, please find the top three subway stations which has the most number of bus_lines connected. The order should be up to the giving district order, the number of bus_lines and the station_id.

    请找出龙华、宝安、南山三个区内，拥有公交车接驳站最多的3个地铁站(排序根据district顺序：Longhua->Baoan->Nanshan，公交站数量以及station_id)

	district	cnt	station_id
1	Longhua	6	
2	Longhua	3	
3	Longhua	2	
4	Bao'an	2	
5	Bao'an	1	
6	Bao'an	1	
7	Nanshan	5	
8	Nanshan	5	
9	Nanshan	4	

4. Each subway line passes through a certain number of stations. As for the subway lines built so far, please output the line_id, opening time, number of subway stations passed by , as well as the change rate of the number of subway stations that each subway line passes through compared with the previous opening one (the result retains two decimal places).

每一条地铁线所经过的地铁站数目是一定的。请输出到目前为止的所有地铁线的id，开通时间，所经过的地铁站数，以及每一条地铁线相较于上一条建的地铁线所经过的地铁站数目的变化率（结果保留两位小数）。

	line_id	opening	cnt	variation
1	1	2004	30	<null>
2	4	2004	23	-23.33%
3	2	2010	29	26.09%
4	3	2010		
5	5	2011		
6	7	2016		
7	9	2016		
8	11	2016		