Assignment 1

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Question1

answer code:

sanpshot of result table:

	‡	$ Displays \subseteq \Box$ chinese_name $egin{array}{cccccccccccccccccccccccccccccccccccc$	□ district ▽
1	13 Qiaocheng East	侨城东	Futian
2	30 Airport East	机场东	Bao'an
3	39 Airport North	机场北	Bao'an
4	45 Hongshuwan South	红树湾南	Nanshan
5	47 Gangxia North	岗厦北	Futian
6	59 Qiaocheng North	侨城北	Nanshan
7	64 Xiangmei North	香梅北	Futian
8	66 Lianhua West	莲花西	Futian
9	68 Huaqiang North	华强北	Futian
10	102 Lianhua North	莲花北	Futian
11	106 Shenzhen North Station	深圳北站	Longhua
12	112 Qinghu North	清湖北	
13	124 Honglang North	洪浪北	Bao'an
14	155 Huaqiang South	华强南	Futian
15	158 Hongling North	红岭北	Luohu
16	170 Shenzhen University East	深大东	Nanshan
17	183 Hongling South	红岭南	Luohu
18	185 Renmin South	人民南	Luohu

Question2

answer code:

```
select district,
        round((max(latitude) - min(latitude)) * 111) as 南北跨度km
from stations
where latitude is not NULL
    and district is not NULL
group by district;
```

sanpshot of result table:

	\square district $ abla$	‡	□ 南北跨度km	∇	‡
1	Bao'an				27
2	Luohu				6
3	Futian				6
4	Longgang				15
5	Nanshan				13
6	Longhua				8

Question 3

answer code:

sanpshot of result table:

```
□ station_information ▽

1 Station 2 Guomao(国贸) in Luohu

2 Station 3 Laojie(老街) in Luohu

3 Station 4 Grand Theater(大剧院) in Luohu

4 Station 5 Science Museum(科学馆) in Futian

5 Station 6 Huaqiang Rd(华强路) in Futian

6 Station 7 Gangxia(岗厦) in Futian

7 Station 8 Convention and Exhibition Center Station(会展中心) in Futian

8 Station 9 Shopping Park(购物公园) in Futian

9 Station 10 Xiangmihu(香蜜湖) in Futian
```

Question 4

answer code:

```
select distinct station_id
from bus_lines
where bus_line in ('103', '104')
order by station_id DESC;
```

sanpshot of result table:

	$\crewith{\begin{tabular}{l} \end{table} \crewith{\crewith} $	\$
1		174
2		150
3		149
4		146
5		144
6		142
7		141
8		127
9		102
10		101
11		81
12		80
13		76
14		73
15		70
16		65
17		64
18		63
4.0	4 / 14	′ ^

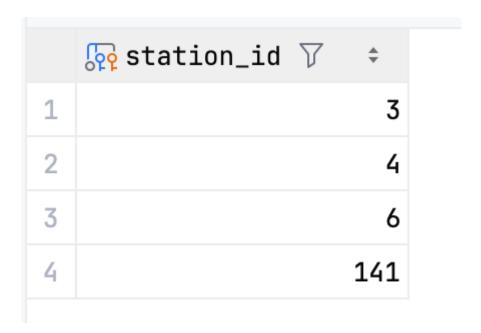


Question 5

answer code:

```
select distinct station_id
from bus_lines
where bus_line in ('103', '104')
group by station_id
having count(distinct bus_line ) = 2
order by station_id;
```

sanpshot of result table (ascending):

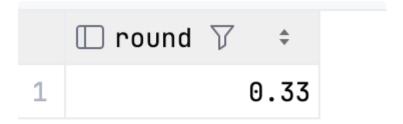


Question 6

answer code:

```
select
  round(
          1.0 * count(*) /
          (select count(distinct station_id)
          from bus_lines
          where bus_line = '103'),
          2
     ) as round
from (
     select station_id
     from bus_lines
     where bus_line in ('103', '104')
     group by station_id
     having count(distinct bus_line) = 2
) as common;
```

sanpshot of result table:



Question 7

answer code:

sanpshot of result code:

		Assignment 1		
	<pre>□ bus_line \(\nabla \)</pre>	\square cnt $ abla$	‡	
1	N4		21	
2	309		20	
3	366		20	
4	204		18	
5	79		18	
6	651		18	
7	M268		18	
8	303		17	
9	383		17	
10	223		17	
11	113		17	
12	104		16	
13	338		16	
14	Shen-Hui 3A (深惠3A)		16	
15	101		16	
16	372		15	
17	812		15	
18	80		15	
19	323		15	
20	M372		15	
21	N6		15	
22	351		15	
23	202		14	
24	369		14	

	\square bus_line $ abla$	\$ □ cnt	∇	‡
53	245			11
54	M266			11
55	235			11
56	M359			11
57	201			11
58	215			11
59	M414			11
60	21			11
61	M448			11
62	377			11
63	333			10
64	67			10
65	N8			10
66	234			10
67	320			10
68	203			10
69	371			10
70	379			10
71	38			10
72	M435			10
73	M447			10
74	M358			10
75	14			10
76	M500			10

76 rows V

Question 8

answer code:

```
from bus_lines
   group by station_id
) as max
);
```

sanpshot of result code:

Question 9

answer code:

sanpshot of result code:

	\square bus_line $ abla$	Assign	\square count $ abla$	*
1	N1			7
2	N2			8
3	N3			7
4	N4			21
5	N6			15
6	N7			6
7	N8			10
8	N9			8
9	N10			7
10	N12			3
11	N14			12
12	N15			5
13	N16			4
14	N17			3
15	N18			5
16	N19			7
17	N21			3
18	N24			3
19	N25			4

19 rows V

Question 10

answer code:

```
select bus_line,
    count(distinct station_id) as cnt,
    case
    when bus_line ~ '^N[0-9]' then '夜班公交'
    when bus_line ~ '^M[0-9]' then '主干线公交'
    else ' '
    end as 备注
```

```
from bus_lines
group by bus_line
having count(distinct station_id) > 10
order by cnt DESC;
```

sanpshot of result code:

	\square bus_line $ abla$	‡	□ cnt 🍸	‡	□备注 ▽ ÷
1	N4			21	夜班公交
2	309			20	
3	366			20	
4	79			18	
5	M268			18	主干线公交
6	204			18	
7	651			18	
8	113			17	
9	223			17	
10	383			17	
11	303			17	
12	338			16	
13	Shen-Hui 3A (深惠3A)			16	
14	104			16	
15	101			16	
16	812			15	
17	N6			15	夜班公交
18	M372			15	主干线公交
19	351			15	
20	80			15	
21	323			15	
22	372			15	
23	202			14	62 rows V
24	123			14	02 10WS V

	<pre>□ bus_line ▽</pre>	\$ □ cnt	∇	\$	□ 备注	∇	\$
25	369			14			
26	26			14			
27	M378			13	主干线公	交	
28	311			13			
29	325			13			
30	357			13			
31	365			13			
32	64			13			
33	M203			13	主干线公	交	
34	373			12			
35	382			12			
36	121			12			
37	324			12			
38	839			12			
39	103			12			
40	222			12			
41	M369			12	主干线公	交	
42	M370			12	主干线公	交	
43	M433			12	主干线公	交	
44	N14			12	夜班公交		
45	374			12			
46	K105			11			
47	K113			11		62 rows	~
48	M414			11	主干线么		Y

Assignment 1

	\square bus_line $ abla$	\$ \square cnt $ egthinspace 7$	\$	□ 备注 ▽ •
44	N14		12	夜班公交
45	374		12	
46	K105		11	
47	K113		11	
48	M414		11	主干线公交
49	M266		11	主干线公交
50	201		11	
51	M359		11	主干线公交
52	377		11	
53	M448		11	主干线公交
54	326		11	
55	54		11	
56	59		11	
57	336		11	
58	215		11	
59	322		11	
60	245		11	
61	235		11	
62	21		11	

62 rows V