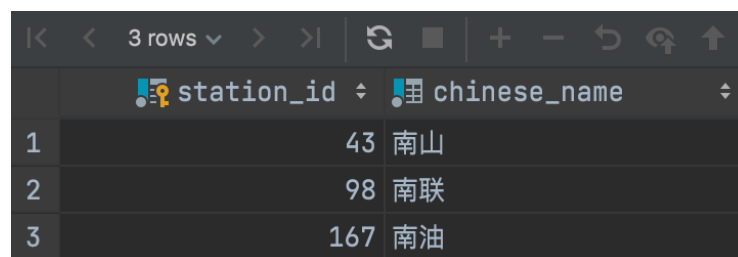


# Assignment 2

---

## Q.1

```
1 SELECT DISTINCT station_id, chinese_name
2 FROM stations
3 WHERE chinese_name ~ '^南'
4 ORDER BY station_id;
```

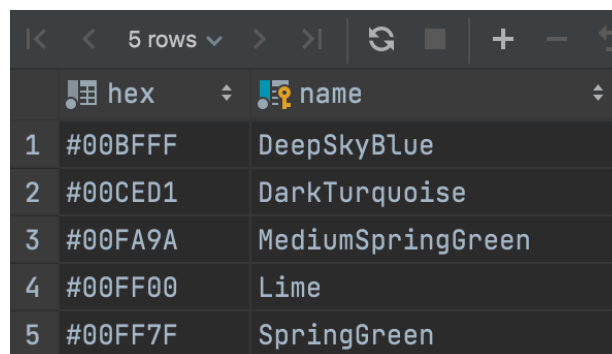


A screenshot of a database query result interface. At the top, it shows '3 rows' and navigation icons. Below is a table with two columns: 'station\_id' and 'chinese\_name'. The table contains three rows of data.

	station_id	chinese_name
1	43	南山
2	98	南联
3	167	南油

## Q.2

```
1 SELECT hex, name
2 FROM color_names
3 ORDER BY hex
4 OFFSET 9 LIMIT 5;
```



A screenshot of a database query result interface. At the top, it shows '5 rows' and navigation icons. Below is a table with two columns: 'hex' and 'name'. The table contains five rows of data.

	hex	name
1	#00BFFF	DeepSkyBlue
2	#00CED1	DarkTurquoise
3	#00FA9A	MediumSpringGreen
4	#00FF00	Lime
5	#00FF7F	SpringGreen

## Q.3

### Q 3.1

```
1 SELECT bus_line, COUNT(*)
2 FROM bus_lines
3 GROUP BY bus_line;
```

1-500 of 686		
bus_line		count
1 Seaside-leisure Line		2
2 868区间1		6
3 M453		8
4 M497		1
5 90		2
6 M200		3
7 330/Airport 1 (机场1)		3
8 M374		6
9 B912		2
10 B810		2

### Q 3.2

```

1 SELECT COUNT(*) cnt
2 FROM bus_lines
3 GROUP BY bus_line
4 ORDER BY cnt DESC
5 LIMIT 1;

```

1 row	
	cnt
1	21

### Q 3.3

```

1 WITH max_cnt AS (SELECT COUNT(*) cnt
2                   FROM bus_lines
3                   GROUP BY bus_line
4                   ORDER BY cnt DESC
5                   LIMIT 1)
6 SELECT bus_line
7 FROM bus_lines
8 GROUP BY bus_line
9 HAVING COUNT(*) = (SELECT cnt FROM max_cnt)
10 ORDER BY bus_line;

```

1 row	
	bus_line
1	N4

## Q. 4

### Q 4.1

```

1 SELECT DISTINCT station_id, chinese_name, english_name

```

```

2 FROM bus_lines b
3     NATURAL JOIN stations s
4 WHERE b.bus_line IN ('2', '7');

```

	station_id	chinese_name	english_name
1	1	罗湖	Luohu
2	2	国贸	Guomao
3	70	湖贝	Hubei
4	79	红岭	Hongling
5	81	翠竹	Cuizhu
6	82	田贝	Tianbei
7	104	民乐	Minle
8	140	太安	Tai'an
9	180	银湖	Yinhu
10	182	园岭	Yuanling
11	183	红岭南	Hongling South
12	185	人民南	Renmin South

## Q 4.2

```

1 SELECT station_id
2 FROM bus_lines
3 WHERE bus_line = '2'
4 INTERSECT
5 SELECT station_id
6 FROM bus_lines
7 WHERE bus_line = '7'

```


station_id
1

## Q 4.3

```

1 WITH ln27 AS (SELECT station_id
2     FROM bus_lines
3     WHERE bus_line = '2'
4     INTERSECT
5     SELECT station_id
6     FROM bus_lines
7     WHERE bus_line = '7'),
8     ln7 AS (SELECT station_id
9     FROM bus_lines
10    WHERE bus_line = '7')
11 SELECT ROUND((SELECT COUNT(*) FROM ln27)::numeric / (SELECT COUNT(*) FROM ln7), 2);

```

< < 1 row ▾ > >	
	 round ▾
1	0.14