

基于 openGauss 的 SQL 查询练习

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1.select * from employee where sex='男';

```
postgres=# select * from employee where sex='男';
 empid | empname | age | sex | depid 
-----+-----+-----+-----+-----
 10102 | 张三   | 34 | 男 | d1
 10211 | 李飞   | 24 | 男 | d2
 22020 | 周成   | 39 | 男 | d2
 25348 | 冯鑫   | 27 | 男 | d1
 29346 | 王鑫   | 32 | 男 | d1
(5 rows)
```

2.select empid,empname,age,location from employee natural join department where empname like '李%' order by age desc;

```
postgres=# select empid,empname,age,location from employee natural join department where empname like '李%' order by age desc;
 empid | empname | age | location 
-----+-----+-----+-----
 28559 | 李凤   | 41 | 广州
 10211 | 李飞   | 24 | 北京
(2 rows)
```

3.select empname, max(budget) as highestbudget, min(budget) as lowestbudget from employee natural join workson natural join project group by empname;

```
postgres=# select empname,max(budget) as highestbudget ,min(budget) as lowestbudget from employee natural join workson natural join project group by empname;
 empname | highestbudget | lowestbudget 
-----+-----+-----
 张三   | 185000 | 40000
 张伟   | 150000 | 150000
 王鑫   | 120000 | 120000
 李飞   | 120000 | 85000
 王玲   | 150000 | 120000
 李凤   | 185000 | 120000
 冯鑫   | 150000 | 40000
 周成   | 50000 | 40000
(8 rows)
```

4.select empid,count(distinct proid) as num from employee natural join workson group by empid having count(distinct proid)>1;

```
postgres=# select empid,count(distinct proid) as num from employee natural join workson group by empid having count(distinct proid)>1;
 empid | num 
-----+-----
 10102 | 8
 10211 | 2
 18316 | 3
 22020 | 2
 25348 | 3
 28559 | 3
(6 rows)
```

5.select proid,projectname,budget from project where catid='c2' and budget >= all (select budget from project where catid = 'c2');

```
postgres=# select proid,projectname,budget from project where catid='c2' and budget >= all (select budget from project where catid = 'c2');
 proid | projectname | budget 
-----+-----+-----
 p4    | 服务器采购 | 150000
(1 row)
```

6.select empid,empname,age,sex,depid from employee natural join workson natural join project where projectname = '产品推广' and job is NULL;

```
postgres=# select empid,empname,age,sex,depid from employee natural join workson natural join project where projectname = '产品推广' and job is NULL;
 empid | empname | age | sex | depid 
-----+-----+----+----+-----
 25348 | 冯鑫    | 27 | 男  | d1
(1 row)
```

7.select category.catid,count(workson.empid) pronom from category left join project on project.catid=category.catid left outer join workson on project.proid=workson.proid and workson.empid= 10102 group by category.catid;

```
postgres=# select category.catid,count(workson.empid) pronom from category left join project on project.catid=category.catid left outer join workson on project.proid=workson.proid and workson.empid= 10102 group by category.catid;
 catid | pronom 
-----+-----
 c5    | 1
 c4    | 2
 c3    | 1
 c1    | 1
 c2    | 3
(5 rows)
```

8.select *from employee where empid not in (select empid from category natural join project natural join workson where catname= '软件类') and sex= '女';

```
postgres=# select *from employee where empid not in (select empid from category natural join project natural join workson where catname= '软件类') and sex= '女';
 empid | empname | age | sex | depid 
-----+-----+----+----+-----
 17114 | 张伟    | 36 | 女  | d1
 18316 | 王玲    | 29 | 女  | d4
(2 rows)
```

9.select location,max(age) maxage from employee natural join department where location in (select location from employee natural join department where sex= '男' and age>30) and sex= '男' group by location;

```
postgres=# select location,max(age) maxage from employee natural join department where location in (select location from employee natural join department where sex= '男' and age>30) and sex= '男' group by location;
 location | maxage 
-----+-----
 天津    | 34
 北京    | 39
(2 rows)
```

10.select empid,empname,count(distinct proid)procont from employee natural join workson natural join project where empid in(select empid from employee natural join department natural join project where location='广州' and projectname='产品推广')group by empid,empname;

```
postgres=# select empid,empname,count(distinct proid)procont from employee natural join workson natural join project where empid in(select empid from employee natural join department natural join project where location='广州' and projectname='产品推广' )group by empid,empname;
 empid | empname | procont 
-----+-----+-----
 28559 | 李凤    | 3
(1 row)
```