

基于 GaussDB 的 SQL 查询练习实验

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实验步骤：

- 登录华为云 IAM 用户
- 访问对应数据库
- 进行相关数据查询

实验报告

实验步骤：

1.给出职工中所有男性的所有信息 (empid,empname,age,sex,edpid)

Select * from employee where sex= '男' ;

The screenshot shows a SQL query execution interface. At the top, the query is: `1 SELECT * FROM employee WHERE sex = '男';`. Below the query, there are tabs for 'SQL执行记录', '消息', and '结果集1 X'. The '结果集1 X' tab is selected, showing the execution results. A message states: '以下是SELECT * FROM employee WHERE sex = '男'的执行结果集' and '点击单元格可编辑数据, 新增或编辑后需要提交编辑以保存'. The results are displayed in a table with columns: empid, empname, age, sex, and depid. The table contains four rows of data. At the bottom, there are controls for '最多显示 50 行', a checkbox for '16进制显示Binary类型', and buttons for '刷新', '单行详情', '新增行', '提交编辑', and '删除行'.

	empid	empname	age	sex	depid
1	10102	张三	34	男	d1
2	10211	李飞	24	男	d2
3	22020	周成	39	男	d2
4	25348	王鑫	27	男	d1

2.统计“李”性职工信息, 按年龄降序排序。(empid,empname,age,location)

SELECT empid ,empname ,age,location from employee,department
WHERE employee.depid =department.depid and employee.empname

LIKE '李%' ORDER BY employee.age DESC

```
1 SELECT empid ,empname ,age,location FROM employee,department WHERE employee.depid =department.depid and employee.empname LIKE '李%' ORDER BY employee.age DESC
```

SQL执行记录 消息 结果集1 X

以下是SELECT empid ,empname ,age,location from employee,department WHERE employee... ① 查询结果集中包含了多个表, 不能进行编辑、导出SQL操作

	empid	empname	age	location
1	28559	李风	41	广州
2	18211	李飞	24	北京

3. 给出每位职员参与项目的最高预算和最低预算 (empname, highestbudget, lowestbudget)

SELECT empname,MAX(budget) AS 'highestbudget',min(budget) AS 'lowestbudget' FROM employee,project,workson

WHERE employee.empid = workson.empid and workson.proid =project.proid

GROUP BY employee.empname

```
1 SELECT empname,MAX(budget) AS 'highestbudget',min(budget) AS 'lowestbudget' FROM employee,project,workson
2 WHERE employee.empid = workson.empid and workson.proid =project.proid
3 GROUP BY employee.empname
4
```

SQL执行记录 消息 结果集1 X

以下是SELECT empname,MAX(budget) AS 'highestbudget',min(budget) AS 'lowestbudget' F... ① 查询结果集中包含了多个表, 不能进行编辑、导出SQL操作

	empname	highestbudget	lowestbudget
1	张三	185000	40000
2	李飞	120000	85000
3	王玲	150000	120000
4	冯鑫	150000	40000
5	李风	185000	120000
6	王鑫	120000	120000
7	周成	56000	40000
8	张伟	150000	150000

4.给出所有项目超过一个的员工的 id 和参加的项目个数 (empid, num)

SELECT employee.empid,COUNT (workson.proid) AS 'num' FROM employee,workson

WHERE workson.empid =employee.empid

GROUP BY employee.empid

HAVING COUNT(*) >1

```
1 SELECT employee.empid,COUNT (workson.proid) AS 'num' FROM employee,workson
2 WHERE workson.empid =employee.empid
3 GROUP BY employee.empid
4 HAVING COUNT(*) >1
```

SQL执行记录 消息 结果集1 X

以下是SELECT employee.empid,COUNT (workson.proid) AS 'num' FROM employee,workso... ① 查询结果集中包含了多个表, 不能进行编辑、导出SQL操作

	empid	num
1	10102	8
2	10211	2
3	18316	3
4	22020	2
5	25348	3
6	28559	3

5.给出项目种类号为“c2”且预算最多的项目。(proid, projectname, budget)

SELECT proid,projectname,budget FROM project

WHERE catid ='c2' AND budget >=ALL (SELECT budget FROM project

WHERE catid ='c2');

```
1 SELECT proid,projectname,budget FROM project
2 WHERE catid ='c2' AND budget >=ALL (SELECT budget FROM project WHERE catid ='c2')
3 |
```

SQL执行记录 消息 结果集1 X

以下是SELECT proid,projectname,budget FROM project WHERE catid ='c2' AND budget >=... ① 点击单元格可编辑数据, 新增或编辑后需要提交编辑以保存

	proid	projectname	budget
1	p4	服务器采购	150000

6. 给出参加“产品推广”项目, 但不担任职位的员工的员工信息,
(empid,empname, age,sex,depid)

SELECT

employee.empid ,employee.empname,employee.age,
employee.sex ,employee.depid FROM
employee,workson,project

WHERE employee.empid =workson.empid AND workson.job IS NULL
AND workson.proid =project.proid AND project.projectname = '产品推广'
,

```
1 SELECT employee.empid ,employee.empname,employee.age,employee.sex ,employee.depid FROM employee,workson,project
2 WHERE employee.empid =workson.empid AND workson.job IS NULL AND workson.proid =project.proid AND project.projectname = '产品推广'
3
```

SQL执行记录 消息 结果集1 X

以下是SELECT employee.empid ,employee.empname,employee.age,employee.sex ,employ... ① 点击单元格可编辑数据, 新增或编辑后需要提交编辑以保存

	empid	empname	age	sex	depid
1	25348	冯鑫	27	男	d1

7. 给出工号为“10102”的员工每类项目的参加总数, 若没有参加过某类项目, 则参加项目总数显示为0 (catid, proNum)

SELECT project.catid ,COUNT (DISTINCT project.proid) AS 'proNum'
FROM workson,project

WHERE workson.empid ='10102'

GROUP BY project.catid ;

```
1 SELECT project.catid ,COUNT (DISTINCT project.proid ) AS 'proNum' FROM workson,project
2 WHERE workson.empid ='10102'
3 GROUP BY project.catid ;
```

SQL执行记录 消息 结果集1 X

以下是SELECT project.catid ,COUNT (DISTINCT project.proid) AS 'proNum' FROM workso... ① 查询结果集中包含了多个表, 不能进行编辑、导出SQL操作

	catid	proNum
1	c1	1
2	c2	3
3	c3	1
4	c4	2
5	c5	1

8. 给出没有参与“软件类”项目女性职工的信息 (empid,empname,
age,sex,depid)

SELECT * FROM employee

WHERE sex ='女' AND empid NOT IN

(SELECT empid FROM workson WHERE workson.proid IN

(SELECT proid FROM project WHERE project.catid ='c4')

)

```
2 WHERE sex ='女' AND empid NOT IN
3 (SELECT empid FROM workson WHERE workson.proid IN
4 (SELECT proid FROM project WHERE project.catid ='c4')
5 )
```

SQL执行记录 消息 结果集1 X

以下是SELECT * FROM employee WHERE sex ='女' AND empid NOT IN (SELECT empid F... ① 点击单元格可编辑数据, 新增或编辑后需要提交编辑以保存

	empid	empname	age	sex	depid
1	17114	张伟	36	女	d1
2	18316	王玲	29	女	d4

9. 给出有 30 岁以上男性员工的省份名称和该省男员工最大年龄, 结果按最大年龄升序排序.

SELECT department.location,MAX(employee.age) AS 'maxAge' FROM
department,employee

WHERE employee.sex ='男' AND employee.depid =department.depid
AND department.depid IN

(SELECT depid FROM employee WHERE age >30)

GROUP BY department.depid

```
1 SELECT department.location,MAX( employee.age ) AS 'maxAge' FROM department,employee
2 WHERE employee.sex ='男' AND employee.depid =department.depid AND department.depid IN
3 (SELECT depid FROM employee WHERE age >30)
4 GROUP BY department.depid
```

SQL执行记录 消息 结果集1 X

以下是SELECT department.location,MAX(employee.age) AS 'maxAge' FROM department.e... ① 查询结果集中包含了多个表, 不能进行编辑、导出SQL操作

	location	maxAge
1	天津	34
2	北京	39

10. 给出在广州工作的、参加 “产品推广” 项目的职员 id、姓名及他们参加的项目个数 (empid, empname, procnt)

```
SELECT employee.empid ,employee.empname ,COUNT (*) FROM employee,workson
WHERE employee.empid IN
```

```
(SELECT employee.empid FROM employee,workson,project
```

```
WHERE employee.depid IN (SELECT depid FROM department WHERE location ='广州' )
```

```
AND workson.proid IN (SELECT project.proid FROM project WHERE projectname ='产品推广' )
```

```
AND employee.empid =workson.empid
```

```
AND workson.proid =project.proid
```

```
)
```

```
AND employee.empid =workson.empid
```

```
5 AND employee.empid =workson.empid
6 AND workson.proid =project.proid
7 }
8 AND employee.empid =workson.empid
```

SQL执行记录 消息 结果集1 X

以下是SELECT employee.empid ,employee.empname ,COUNT (*) FROM employee,workso... ⓘ 查询结果集中包含了多个表，不能进行编辑、导出SQL操作 复制行 复制列

	empid	empname	COUNT(*)
1	28559	李风	3