

数据库 第3次作业

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3.10 考虑雇员数据库，其中加下划线的是主码。为下面每个查询写出SQL表达式：

```
Employee(employee_name,street,city)
works(employee_name,company_name,salary)
Company(company_name,city)
Managers(employee_name,manager_name)
```

- A. 找出所有为“First Bank Corporation”工作的雇员名字及其居住城市。

```
Select employee_name , city
From employee left join works
Where company_name = 'FirstBank Corporation';
```

- B. 找出所有为“First Bank Corporation”工作且薪金超过10000美元的雇员名字、居住街道和城市。

```
Select employee_name ,street, city
From employee left join works
Where company_name = 'FirstBank Corporation' and salary > 10000;
```

- C. 找出数据库中所有不为“First Bank Corporation”工作的雇员。

```
Select employee_name
From employee left join works
Where company_name != 'FirstBank Corporation';
```

- D. 找出数据库中工资高于“Small Bank Corporation”的每个雇员的所有雇员。

```
Select employee_name
From works
Where salary >
    (select max(salary)
     From works
     where company_name = 'Small Bank Corporation'
     Group by company_name);
```

- E. 假设一个公司可以在好几个城市有分部。找出位于“Small Bank Corporation”所有所在城市的所有公司。

```
Select company_name
Form Company
Where city in
    (select city
     From company
     where company_name = 'SmallBank Corporation')
```

- F. 找出雇员最多的公司。

```

Select company_name
From works
Group by company_name
Order by count(employee_name) desc
Limit 1

```

- G. 找出平均工资高于“First Bank Corporation”平均工资的那些公司

```

Select company_name
From works
where avg(salary)>
    (select avg(salary) as avg_salary
     From works
     where company_name='First Bank Corporation'
     Group by company_name)
group by company_name

```

3.10 考虑图3-20的关系数据库，给出下面每个查询的SQL表达式：

- A. 修改数据库使“Jones”现在居住在“Newtown”市。

```

Update employee
Set city = 'Newtown'
where employee_name = 'Jones';

```

-

```

Updata works as T
Set T.salary = t.salary *1.03
where T.employee_name in
    (selectmanager_name
     From manages)
And T.company_name = 'FirstBank Corporation'
And t.salary >100000;

```

```

Updata works as T
Set T.salary = t.salary *1.1
where T.employee_name in
    (selectmanager_name
     From manages)
And T.company_name = 'FirstBank Corporation'
And t.salary <=100000;

```

3.16考虑图3-20中的雇员数据库，其中加下划线的是主码。给出下面每个查询对应的SQL语句

- A.找出所有为“First Bank Corporation”工作的雇员的名字

```
select employee_name
from works
where company_name='First Bank Corporation'
```

- B.找出数据库中所有居住城市和公司所在城市相同的雇员

```
with em_c(name,city) as
    (select employee_name,city from works natural join company)
select employee_name from employee,em_c
where employee.employee_name=em_c.name
and employee.city=em_c.city
```

- C.找出数据库中所有居住的街道和城市与其经理相同的雇员

```
select a.employee_name from employee a,employee b,managers
where a.employee_name=managers.employee_name
and managers.manager_name = b.managers
and a.city=b.city
and a.street =b.street
```

- D.找出工资高于其所在公司雇员平均工资工资的所有雇员

```
select employee_name
from works w1
where salary >
    (select avg(salary) from works group by company_name
     having works.company_name =w1.company_name
    )
```

- E.找出工资总和最小的公司

```
with salary_sum (name,numb) as
    (select company_name,sum(salary) from works group by company_name )
select name
from salary_sum
where numb =
    (select min(numb) from salary_sum )
```

3.17 考虑图3-20中的关系数据库。给出下面每个查询对应的SQL表达式。

- A.为“First Bank Corporation”的所有雇员增长10%的工资

```
update works set salary=salary*1.1
where company_name = 'First Bank Corporation'
```

- B.为“First Bank Corporation”的所有经理增长10%的工资

```
update works set salary=salary*1.1
where company_name = 'First Bank Corporation'
and employee_name in
    (select manager_name from managers)
```

- C.删除“Small Bank Corporation”的雇员在works关系中的所有元组

```
delete from works where company_name = 'Small Bank Corporation'
```