

# 数据库第11周作业

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- 数据库第11周作业
  - 1. 安装 mysql
  - 2. 安装 postgresql
  - 3. 将 emp 、 dept 表导入 mysql
  - 4. 将 emp 、 dept 表导入 PGSQL
  - 5. 找出 Oracle 与 MySQL , PostgreSQL 的 SQL 实现语法不同之处, 每个数据库各找 5 种差异

## 1. 安装 `mysql`

```
winget install oracle.mysql
```

```
PS D:\Work\数据库> winget install Oracle.mysql
已找到 MySQL [Oracle.MySQL] 版本 8.0.28
此应用程序由其所有者授权给你。
Microsoft 对第三方程序包概不负责，也不向第三方程序包授予任何许可证。
Downloading https://cdn.mysql.com/Downloads/MySQLInstaller/mysql-installer-community-8.0.28.0.msi
██████████ 435 MB / 435 MB
已成功验证安装程序哈希
正在启动程序包安装...
已成功安装
PS D:\Work\数据库>
```

终端 问题 输出 调试控制台

```
PS D:\Work\数据库> mysqlsh
MySQL Shell 8.0.28
```

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Oracle is a registered trademark of Oracle Corporation and/or its affiliates.  
Other names may be trademarks of their respective owners.

```
Type '\help' or '? ' for help; '\quit' to exit.
```

```
MySQL JS > \connect Czile
```

```
Creating a session to 'Czile@Czile'
```

```
Fetching schema names for autocompletion... Press ^C to stop.
```

Your MySQL connection id is 10 (X protocol)

```
Server version: 8.0.28 MySQL Community Server - GPL
```

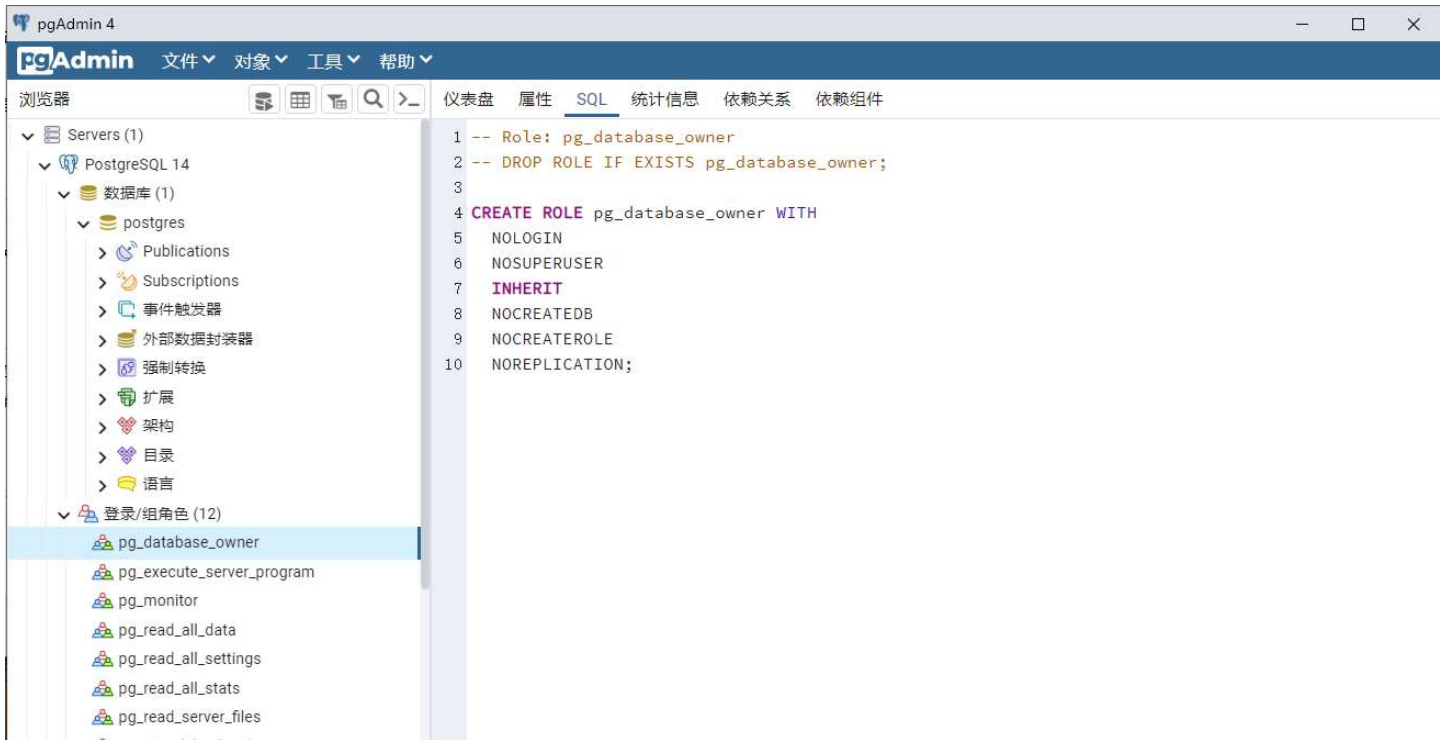
No default schema selected; type \use <schema> to set one.

MySQL Cziale:33060+ ssl JS >

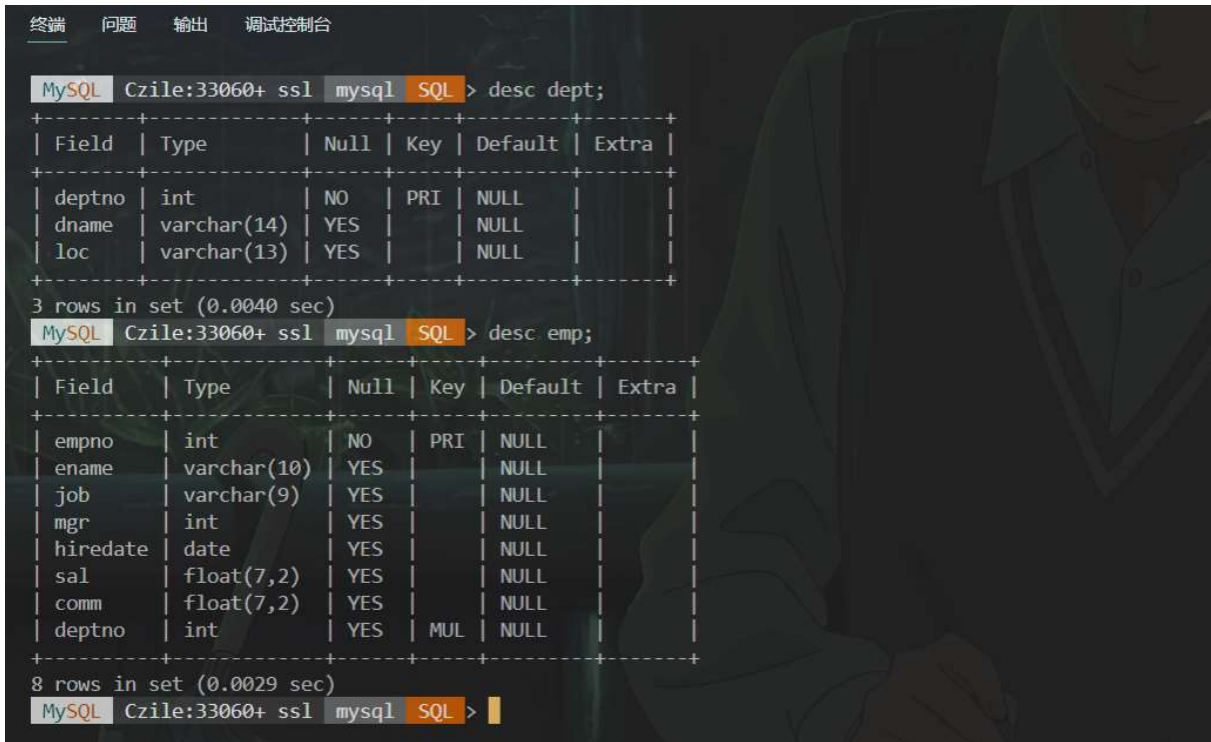
## 2. 安装 postgresql

```
winget install postgresql.postgresql -l 'D:\program files\'
```

```
PS D:\Work\数据库> winget install postgresql.postgresql -l 'D:\program files\'
已找到 PostgreSQL 14 [PostgreSQL.PostgreSQL] 版本 14
此应用程序由其所有者授权给你。
Microsoft 对第三方案程序包概不负责，也不向第三方案程序包授予任何许可证。
Downloading https://get.enterprisedb.com/postgresql/postgresql-14.1-1-windows-x64.exe
284 MB / 284 MB
已成功验证安装程序哈希
正在启动程序包安装...
已成功安装
PS D:\Work\数据库> 
```



### 3. 将 emp、dept 表导入 mysql



```

CREATE TABLE `dept` (
  `deptno` INT(2) NOT NULL,
  `dname` VARCHAR(14),
  `loc` VARCHAR(13),
  CONSTRAINT pk_dept PRIMARY KEY(deptno)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;

CREATE TABLE `emp` (
  `empno` int(4) NOT NULL PRIMARY KEY,
  `ename` VARCHAR(10),
  `job` VARCHAR(9),
  `mgr` int(4),
  `hiredate` DATE,
  `sal` float(7,2),
  `comm` float(7,2),
  `deptno` int(2),
  CONSTRAINT fk_deptno FOREIGN KEY(deptno) REFERENCES dept(deptno)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;

INSERT INTO dept VALUES (10,'ACCOUNTING','NEW YORK');
INSERT INTO dept VALUES (20,'RESEARCH','DALLAS');
INSERT INTO dept VALUES (30,'SALES','CHICAGO');
INSERT INTO dept VALUES (40,'OPERATIONS','BOSTON');

INSERT INTO EMP VALUES (7369,'SMITH','CLERK',7902,'1980-12-17',800,NULL,20);
INSERT INTO EMP VALUES (7499,'ALLEN','SALESMAN',7698,'1981-02-20',1600,300,30);
INSERT INTO EMP VALUES (7521,'WARD','SALESMAN',7698,'1981-02-22',1250,500,30);
INSERT INTO EMP VALUES (7566,'JONES','MANAGER',7839,'1981-04-02',2975,NULL,20);
INSERT INTO EMP VALUES (7654,'MARTIN','SALESMAN',7698,'1981-09-28',1250,1400,30);
INSERT INTO EMP VALUES (7698,'BLAKE','MANAGER',7839,'1981-05-01',2850,NULL,30);
INSERT INTO EMP VALUES (7782,'CLARK','MANAGER',7839,'1981-06-09',2450,NULL,10);
INSERT INTO EMP VALUES (7788,'SCOTT','ANALYST',7566,'1987-07-13',3000,NULL,20);
INSERT INTO EMP VALUES (7839,'KING','PRESIDENT',NULL,'1981-11-07',5000,NULL,10);
INSERT INTO EMP VALUES (7844,'TURNER','SALESMAN',7698,'1981-09-08',1500,0,30);
INSERT INTO EMP VALUES (7876,'ADAMS','CLERK',7788,'1987-07-13',1100,NULL,20);
INSERT INTO EMP VALUES (7900,'JAMES','CLERK',7698,'1981-12-03',950,NULL,30);
INSERT INTO EMP VALUES (7902,'FORD','ANALYST',7566,'1981-12-03',3000,NULL,20);
INSERT INTO EMP VALUES (7934,'MILLER','CLERK',7782,'1982-01-23',1300,NULL,10);

```

终端 问题 输出 调试控制台

MySQL Czile:33060+ ssl mysql SQL > select \* from emp;

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800	NULL	20
7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30
7521	WARD	SALESMAN	7698	1981-02-22	1250	500	30
7566	JONES	MANAGER	7839	1981-04-02	2975	NULL	20
7654	MARTIN	SALESMAN	7698	1981-09-28	1250	1400	30
7698	BLAKE	MANAGER	7839	1981-05-01	2850	NULL	30
7782	CLARK	MANAGER	7839	1981-06-09	2450	NULL	10
7788	SCOTT	ANALYST	7566	1987-07-13	3000	NULL	20
7839	KING	PRESIDENT	NULL	1981-11-07	5000	NULL	10
7844	TURNER	SALESMAN	7698	1981-09-08	1500	0	30
7876	ADAMS	CLERK	7788	1987-07-13	1100	NULL	20
7900	JAMES	CLERK	7698	1981-12-03	950	NULL	30
7902	FORD	ANALYST	7566	1981-12-03	3000	NULL	20
7934	MILLER	CLERK	7782	1982-01-23	1300	NULL	10

14 rows in set (0.0013 sec)

MySQL Czile:33060+ ssl mysql SQL >

## 4. 将 emp、dept 表导入 PGSQL



```

CREATE TABLE dept(
    deptno INT NOT NULL,
    dname VARCHAR(14),
    loc VARCHAR(13),
    CONSTRAINT pk_dept PRIMARY KEY(deptno)
);

CREATE TABLE emp (
    empno int NOT NULL PRIMARY KEY,
    ename VARCHAR(10),
    job VARCHAR(9),
    mgr int,
    hiredate DATE,
    sal real,
    comm real,
    deptno int,
    CONSTRAINT fk_deptno FOREIGN KEY(deptno) REFERENCES dept(deptno)
);

INSERT INTO dept VALUES (10,'ACCOUNTING','NEW YORK');
INSERT INTO dept VALUES (20,'RESEARCH','DALLAS');
INSERT INTO dept VALUES (30,'SALES','CHICAGO');
INSERT INTO dept VALUES (40,'OPERATIONS','BOSTON');

INSERT INTO EMP VALUES (7369,'SMITH','CLERK',7902,'1980-12-17',800,NULL,20);
INSERT INTO EMP VALUES (7499,'ALLEN','SALESMAN',7698,'1981-02-20',1600,300,30);
INSERT INTO EMP VALUES (7521,'WARD','SALESMAN',7698,'1981-02-22',1250,500,30);
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```

终端 问题 输出 调试控制台

```

postgres=# \connect test;
您现在已经连接到数据库 "test",用户 "postgres".

```

```
test=# select * from emp;
```

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800		20
7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30
7521	WARD	SALESMAN	7698	1981-02-22	1250	500	30
7566	JONES	MANAGER	7839	1981-04-02	2975		20
7654	MARTIN	SALESMAN	7698	1981-09-28	1250	1400	30
7698	BLAKE	MANAGER	7839	1981-05-01	2850		30
7782	CLARK	MANAGER	7839	1981-06-09	2450		10
7788	SCOTT	ANALYST	7566	1987-07-13	3000		20
7839	KING	PRESIDENT		1981-11-07	5000		10
7844	TURNER	SALESMAN	7698	1981-09-08	1500	0	30
7876	ADAMS	CLERK	7788	1987-07-13	1100		20
7900	JAMES	CLERK	7698	1981-12-03	950		30
7902	FORD	ANALYST	7566	1981-12-03	3000		20
7934	MILLER	CLERK	7782	1982-01-23	1300		10

(14 行记录)

## 5. 找出 Oracle 与 MySQL , PostgreSQL 的 SQL 实现语法不同之处, 每个数据库各找 5 种差异

Oracle 与 Mysql/PgSql 差异之处	
选择工资前三的员工信息	
Oracle	<pre>select * from (     select * from emp order by sal desc ) where rownum &lt;= 3;</pre>
MySql	<pre>select * from emp order by sal desc limit 3;</pre>
PgSql	<pre>select * from emp order by sal desc limit 3;</pre>
选出员工工资中位数	
Oracle	<pre>select median(sal) from emp;</pre>
MySql	<pre>with Numbered as (     select *, count(*) over () as Cnt,     ROW_NUMBER() over (order by sal) as RowNum     FROM emp ) select avg(sal) from Numbered     where RowNum in ((Cnt+1)/2, (Cnt+2)/2);`</pre>
PgSql	<pre>select percentile_disc(0.5) within group (order by sal) from emp;</pre>
查看唯一行标识符	
Oracle	<pre>select rowid from emp;</pre>
MySql	<pre>select _rowid from emp;</pre>
PgSql	<pre>select ctid from emp; (ctid 将随着update而改变)</pre>
首字母大写, 其他字母小写	
Oracle	<pre>select initcap(lower('HELLO')) from dual;</pre>
MySql	<pre>select concat(UPPER(left("HELLO",1)),     substring(lower('HELLO'), 2, (length('HELLO') - 1))) from dual;`</pre>
PgSql	<pre>select initcap(lower('HELLO'));</pre>
查看当前登录用户	
Oracle	<pre>select user from dual;</pre>
MySql	<pre>select user();</pre>
PgSql	<pre>select user;</pre>