

## **Aggregate Operations, Group by Having clause**

Create table employe with following field eid,ename,did,salary

The screenshot shows the Paiza.io MySQL Online editor interface. The code editor contains the following SQL statements:

```
1 create table employe (eid int not null,ename varchar(20) not null,did int not null,salary int);
2 insert into employe(eid,ename,did,salary) value(1,'biju',100,8000);
3 insert into employe(eid,ename,did,salary) value(2,'dhiana',104,60000);
4 insert into employe(eid,ename,did,salary) value(3,'ansala',102,65000);
5 insert into employe(eid,ename,did,salary) value(6,'anu',103,9000);
6 select * from employe;
```

The output window displays the result of the SELECT statement:

eid	ename	did	salary
1	biju	100	8000
2	dhiana	104	60000
3	ansala	102	65000
6	anu	103	9000

Create a table dept with field did and dname

The screenshot shows the Paiza.io MySQL Online editor interface. The code editor contains the following SQL statements:

```
1 create table employe (eid int not null,ename varchar(20) not null,did int not null,salary int);
2 insert into employe(eid,ename,did,salary) value(1,'biju',100,8000);
3 insert into employe(eid,ename,did,salary) value(2,'dhiana',104,60000);
4 insert into employe(eid,ename,did,salary) value(3,'ansala',102,65000);
5 insert into employe(eid,ename,did,salary) value(6,'anu',103,9000);
6
7
8 create table dept(did int references employe(did),dname varchar(20) not null);
9 insert into dept(did,dname) values(100,'production');
10 insert into dept(did,dname) values(102,'sales');
11 insert into dept(did,dname) values(104,'it');
12 select count(*) as number_of_employe from employe;
13
```

The output window displays the result of the SELECT statement:

number_of_employe
4

## 1. Find out the number of employees in a company

The screenshot shows the Paiza Online MySQL editor interface. The SQL code in the main editor is as follows:

```
1 create table employee (eid int not null, name varchar(20) not null, did int not null, salary int);
2 insert into employee(eid, name, did, salary) values(1, 'biju', 100, 8000);
3 insert into employee(eid, name, did, salary) values(2, 'diana', 104, 60000);
4 insert into employee(eid, name, did, salary) values(3, 'anala', 102, 65000);
5 insert into employee(eid, name, did, salary) values(4, 'anu', 103, 9000);
6
7
8 create table dept(did int references employee(did), dname varchar(20) not null);
9 insert into dept(did, dname) values(100, 'production');
10 insert into dept(did, dname) values(104, 'sales');
11 insert into dept(did, dname) values(102, 'it');
12 select count(*) as number_of_employee from employee;
13
```

The output window shows the result of the query:

number_of_employee
4

The interface includes a top navigation bar with 'paiza.io MySQL Online', 'New code', 'Recent code', and 'WebDev'. It also has a 'Run (Ctrl-Enter)' button and a 'MySQL books' link. The bottom status bar shows the PaizaCloud logo, a search bar, and system information like '27°C Rain showers' and '01-06-2021'.

## 2. Find out the total salary of all department

The screenshot shows the Paiza Online MySQL editor interface. The SQL code in the main editor is as follows:

```
1 create table employee (eid int not null, name varchar(20) not null, did int not null, salary int);
2 insert into employee(eid, name, did, salary) values(1, 'biju', 100, 8000);
3 insert into employee(eid, name, did, salary) values(2, 'diana', 104, 60000);
4 insert into employee(eid, name, did, salary) values(3, 'anala', 102, 65000);
5 insert into employee(eid, name, did, salary) values(4, 'anu', 103, 9000);
6
7
8 create table dept(did int references employee(did), dname varchar(20) not null);
9 insert into dept(did, dname) values(100, 'production');
10 insert into dept(did, dname) values(104, 'sales');
11 insert into dept(did, dname) values(102, 'it');
12 select did, sum(salary) from employee group by did;
```

The output window shows the result of the query:

did	sum(salary)
100	8000
104	60000
102	65000
103	9000

The interface is identical to the first screenshot, showing the Paiza Online MySQL editor with the same top navigation bar, 'Run (Ctrl-Enter)' button, and bottom status bar.

### 3. Find out the total salary of all department with did=100

The screenshot shows the Paiza.io MySQL Online editor interface. The SQL code in the editor is as follows:

```
1 create table employee (eid int not null, name varchar(20) not null, did int not null, salary int);
2 insert into employee(eid, name, did, salary) values(1, 'Biju', 100, 8000);
3 insert into employee(eid, name, did, salary) values(8, 'diana', 104, 60000);
4 insert into employee(eid, name, did, salary) values(9, 'amala', 102, 65000);
5 insert into employee(eid, name, did, salary) values(6, 'anu', 103, 9000);
6
7
8 create table dept(did int references employee(did), dname varchar(20) not null);
9 insert into dept(did, dname) values(100, 'production');
10 insert into dept(did, dname) values(102, 'sales');
11 insert into dept(did, dname) values(104, 'it');
12 select sum(salary) from employee where did=100;
```

The output of the query is displayed in the 'Output' tab:

```
sum(salary)
8000
```

The execution time is 1.49 sec.

### 4. Find out the average salary of all department

The screenshot shows the Paiza.io MySQL Online editor interface. The SQL code in the editor is as follows:

```
1 create table employee (eid int not null, name varchar(20) not null, did int not null, salary int);
2 insert into employee(eid, name, did, salary) values(1, 'Biju', 100, 8000);
3 insert into employee(eid, name, did, salary) values(8, 'diana', 104, 60000);
4 insert into employee(eid, name, did, salary) values(9, 'amala', 102, 65000);
5 insert into employee(eid, name, did, salary) values(6, 'anu', 103, 9000);
6
7
8 create table dept(did int references employee(did), dname varchar(20) not null);
9 insert into dept(did, dname) values(100, 'production');
10 insert into dept(did, dname) values(102, 'sales');
11 insert into dept(did, dname) values(104, 'it');
12 select did ,avg(salary) as average_salary from employee group by did;
```

The output of the query is displayed in the 'Output' tab:

did	average_salary
100	8000.0000
104	60000.0000
102	65000.0000
103	9000.0000

The execution time is 1.51 sec.

## 5. Find out the inimum salary of all department

The screenshot shows the Paiza Online MySQL editor interface. The SQL code in the editor is as follows:

```
1 create table employee (eid int not null,ename varchar(20) not null,did int not null,salary int);
2 insert into employee(eid,ename,did,salary) value(1,"biju",100,8000);
3 insert into employee(eid,ename,did,salary) value(2,"chitra",102,60000);
4 insert into employee(eid,ename,did,salary) value(3,"anusha",102,65000);
5 insert into employee(eid,ename,did,salary) value(4,"anu",103,9000);
6
7
8 create table dept(did int references employee(did),dname varchar(20) not null);
9 insert into dept(did,dname) values(100,"production");
10 insert into dept(did,dname) values(102,"sales");
11 insert into dept(did,dname) values(103,"it");
12 select did ,min(salary)as minimum_salary from employee group by did;
```

The output of the query is displayed in the Output panel:

did	minimum_salary
100	8000
102	60000
102	65000
103	9000

The interface also shows a success message, a "Run (Ctrl-Enter)" button, and a "MySQL books" link. The bottom status bar indicates the execution time as 1.49 sec.

## 6. Find out the number of employees in each department

The screenshot shows the Paiza Online MySQL editor interface. The SQL code in the editor is as follows:

```
1 create table employee (eid int not null,ename varchar(20) not null,did int not null,salary int);
2 insert into employee(eid,ename,did,salary) value(1,"biju",100,8000);
3 insert into employee(eid,ename,did,salary) value(2,"chitra",102,60000);
4 insert into employee(eid,ename,did,salary) value(3,"anusha",102,65000);
5 insert into employee(eid,ename,did,salary) value(4,"anu",103,9000);
6
7
8 create table dept(did int references employee(did),dname varchar(20) not null);
9 insert into dept(did,dname) values(100,"production");
10 insert into dept(did,dname) values(102,"sales");
11 insert into dept(did,dname) values(103,"it");
12 select did ,count(*) as number_of_employees from employee group by did;
```

The output of the query is displayed in the Output panel:

did	number_of_employees
100	1
102	2
103	1

The interface also shows a success message, a "Run (Ctrl-Enter)" button, and a "MySQL books" link. The bottom status bar indicates the execution time as 1.48 sec.