

Create a table of Employees with below mentioned fields and insert the data and then write the queries to the below questions.

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00	0	90
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00	100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00	100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00	102	60
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00	103	60
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00	103	60
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00	103	60
107	Diana	Lorentz	DLORENTZ	590.423.5567	1987-06-24	IT_PROG	4200.00	0.00	103	60
108	Nancy	Greenberg	NGREENBE	515.124.4569	1987-06-25	FI_MGR	12000.00	0.00	101	100
109	Daniel	Faviet	DFAVIET	515.124.4169	1987-06-26	FI_ACCOUNT	9000.00	0.00	108	100
110	John	Chen	JCHEN	515.124.4269	1987-06-27	FI_ACCOUNT	8200.00	0.00	108	100
111	Ismael	Sciarra	ISCIARRA	515.124.4369	1987-06-28	FI_ACCOUNT	7700.00	0.00	108	100
112	Jose Manuel	Urman	JMURMAN	515.124.4469	1987-06-29	FI_ACCOUNT	7800.00	0.00	108	100
113	Luis	Popp	LPOPP	515.124.4567	1987-06-30	FI_ACCOUNT	6900.00	0.00	108	100
114	Den	Raphaely	DRAPHEAL	515.127.4561	1987-07-01	PU_MAN	11000.00	0.00	100	30
115	Alexander	Khoo	AKHOO	515.127.4562	1987-07-02	PU_CLERK	3100.00	0.00	114	30

mysql> create table employees(EMPLOYEE\_ID int , FIRST\_NAME varchar(50), LAST\_NAME varchar(30),EMAIL varchar(20), PHONE\_NUMBER varchar(10),

HIRE\_DATE date, JOB\_ID varchar(20), SALARY double, COMMISSION\_PCT int,  
 MANAGER\_ID int, DEPARTMENT\_ID int);  
 Query OK, 0 rows affected (0.03 sec)

mysql> desc employees;

Field	Type	Null	Key	Default	Extra
EMPLOYEE_ID	int	YES		NULL	
FIRST_NAME	varchar(50)	YES		NULL	
LAST_NAME	varchar(30)	YES		NULL	
EMAIL	varchar(20)	YES		NULL	
PHONE_NUMBER	varchar(10)	YES		NULL	
HIRE_DATE	date	YES		NULL	
JOB_ID	varchar(20)	YES		NULL	
SALARY	double	YES		NULL	
COMMISSION_PCT	int	YES		NULL	
MANAGER_ID	int	YES		NULL	
DEPARTMENT_ID	int	YES		NULL	

Inserting the values:

insert into employees values(100,'Steven','King','SKING',5151234567,'1987-06-17',  
 'AD\_PRES',24000.00,0.00,0,90);

mysql> insert into employees values(101,'Neena','Kochhar','NKOCHHAR',  
 5151234568,'1987-06-18','AD\_VP',17000.00,0.00,100,90);

mysql> insert into employees values(102,'Lex','De Haan','LDEHAAN',  
 5151234569,'1987-06-19','AD\_VP',17000.00,0.00,100,90);

mysql> insert into employees values(103,'Alexander','Hunold','AHUNOLD',  
 5904234567,'1987-06-20','IT\_PROG',9000.00,0.00,102,60);

insert into employees values(104,'Bruce','Ernst','BERNST',5904234568,'1987-06-  
 21','IT\_PROG',6000.00,0.00,103,60);

mysql> insert into employees values(105,'David','Austin','DAUSTIN',  
 5904234569,'1987-06-22','IT\_PROG',4800.00,0.00,103,60);

mysql> insert into employees values(106,'Valli','Pataballa','VPATABAL',  
 5904234560,'1987-06-23','IT\_PROG',4800.00,0.00,103,60);

mysql> insert into employees values(107,'Diana','Lorentz','DLORENTZ',  
 5904235567,'1987-06-24','IT\_PROG',4200.00,0.00,103,60);

mysql> insert into employees values(108,'Nancy','Greenberg','NGREENBE',  
 5151244569,'1987-06-25','FI\_MGR',12000.00,0.00,101,100);

```
mysql> insert into employees values(109 , 'Daniel', 'Faviet', 'DFAVIET',
'5151244169','1987-06-26', 'FI_ACCOUNT', 9000.00 , 0.00 , 108 , 100);
mysql> insert into employees values(110, 'John', 'Chen', 'JCHEN',
'5151244269','1987-06-27', 'FI_ACCOUNT', 8200.00 , 0.00 , 108, 100);
```

```
mysql> insert into employees values(111, 'Ismael ', 'Sciarra', 'ISCIARRA',
5151244369, '1987-06-28', 'FI_ACCOUNT', 7700.00 , 0.00, 108, 100);
```

```
mysql> insert into employees values(112, 'Jose Manuel ', 'Urman', 'JMURMAN',
'5151244469','1987-06-29', 'FI_ACCOUNT', 7800.00, 0.00 , 108 , 100 );
```

```
mysql> insert into employees values(113, 'Luis', 'Popp', 'LPOPP', 5151244567,
'1987-06-30', 'FI_ACCOUNT', 6900.00, 0.00, 108, 100 );
```

```
mysql> insert into employees values(114, 'Den', 'Raphaely', 'DRAPHEAL',
5151274561 , '1987-07-01', 'PU_MAN', 11000.00, 0.00 , 100, 30 );
```

```
mysql> insert into employees values ( 115 , 'Alexander', 'Khoo' , ' AKHOO',
5151274562 , '1987-07-02', 'PU_CLERK', 3100.00 , 0.00 , 114, 30 );
```

```
mysql> select * from employees;
```

```
+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER |
| HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID |
| DEPARTMENT_ID |
+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
| 104 | Bruce | Ernst | BERNST | 5904234568 | 1987-06-21 |
| IT_PROG | 6000 | 0 | 103 | 60 |
| 100 | Steven | King | SKING | 5151234567 | 1987-06-17 |
| AD_PRES | 24000 | 0 | 0 | 90 |
| 101 | Neena | Kochhar | NKOCHHAR | 5151234568 | 1987-06-18 |
| AD_VP | 17000 | 0 | 100 | 90 |
| 102 | Lex | De Haan | LDEHAAN | 5151234569 | 1987-06-19 |
| AD_VP | 17000 | 0 | 100 | 90 |
| 105 | David | Austin | DAUSTIN | 5904234569 | 1987-06-22 |
| IT_PROG | 4800 | 0 | 103 | 60 |
| 106 | Valli | Pataballa | VPATABAL | 5904234560 | 1987-06-23 |
| IT_PROG | 4800 | 0 | 103 | 60 |
| 107 | Diana | Lorentz | DLORENTZ | 5904235567 | 1987-06-24 |
| IT_PROG | 4200 | 0 | 103 | 60 |
| 108 | Nancy | Greenberg | NGREENBE | 5151244569 | 1987-06-25 |
| FI_MGR | 12000 | 0 | 101 | 100 |
| 109 | Daniel | Faviet | DFAVIET | 5151244169 | 1987-06-26 |
| FI_ACCOUNT | 9000 | 0 | 108 | 100 |
| 110 | John | Chen | JCHEN | 5151244269 | 1987-06-27 |
| FI_ACCOUNT | 8200 | 0 | 108 | 100 |
```

112	Jose Manuel	Urman	JMURMAN	5151244469	1987-06-29
FI_ACCOUNT	7800	0	108	100	
111	Ismael	Sciarra	ISCIARRA	5151244369	1987-06-28
FI_ACCOUNT	7700	0	108	100	
115	Alexander	Khoo	AKHOO	5151274562	1987-07-02
PU_CLERK	3100	0	114	30	
113	Luis	Popp	LPOPP	5151244567	1987-06-30
FI_ACCOUNT	6900	0	108	100	
114	Den	Raphaely	DRAPHEAL	5151274561	1987-07-01
PU_MAN	11000	0	100	30	
103	Alexander	Hunold	AHUNOLD	5904234567	1987-06-20
IT_PROG	9000	0	102	60	

16 rows in set (0.00 sec)

1. Write a query to list the number of jobs available in the employees table

Query:

```
select count(job_id) as number_of_jobs from employees;
```

number_of_jobs
16

2. Write a query to get the total salaries payable to employees.

Query:

```
select sum(salary) as total from employees;
```

total
152500

3. Write a query to get the minimum salary from employees table.

Query:

```
select min(salary) as minimum from employees;
```

minimum
---------

```
| minimum |
```

```
+-----+
```

```
| 3100 |
```

```
+-----+
```

**4.** Write a query to get the maximum salary of an employee working as a Programmer.

```
mysql> select max(salary) from employees where job_id=' IT_PROG';
```

```
+-----+
```

```
| max(salary) |
```

```
+-----+
```

```
| 9000 |
```

```
+-----+
```

**5.** Write a query to get the average salary and number of employees working the department 90.

```
mysql> select avg(salary) ,count(employee_id) from employees where  
department_id=90;
```

```
+-----+-----+
```

```
| avg(salary) | count(employee_id) |
```

```
+-----+-----+
```

```
| 19333.33333333332 | 3 |
```

```
+-----+-----+
```

```
1 row in set (0.00 sec)
```

**6.** Write a query to get the highest, lowest, sum, and average salary of all employees.

```
mysql> select avg(salary),max(salary),min(salary),sum(salary) from employees;
```

avg(salary)	max(salary)	min(salary)	sum(salary)
9531.25	24000	3100	152500

7. Write a query to get the number of employees with the same job.

```
mysql> SELECT job_id, COUNT(*)
```

```
-> FROM employees
```

```
-> GROUP BY job_id;
```

job_id	COUNT(*)
IT_PROG	1
AD_PRES	1
AD_VP	2
IT_PROG	3
FI_MGR	1
FI_ACCOUNT	3
FI_ACCOUNT	1
FI_ACCOUNT	1
PU_CLERK	1
PU_MAN	1
IT_PROG	1

+-----+-----+

**8.** Write a query to get the difference between the highest and lowest salaries.

```
mysql> select max(salary)-min(salary) difference from employees;
```

+-----+

| difference |

+-----+

| 20900 |

+-----+

**9.** Write a query to find the manager ID and the salary of the lowest-paid employee for that manager.

```
mysql> SELECT manager_id, MIN(salary) FROM employees
```

```
-> WHERE manager_id IS NOT NULL
```

```
-> GROUP BY manager_id
```

```
-> ORDER BY MIN(salary) DESC;
```

+-----+-----+

| manager\_id | MIN(salary) |

+-----+-----+

| 0 | 24000 |

| 101 | 12000 |

| 100 | 11000 |

| 102 | 9000 |

| 108 | 6900 |

| 103 | 4200 |

	114		3100	
--	-----	--	------	--

+-----+-----+

**10.** Write a query to get the department ID and the total salary payable in each department.

```
mysql> select department_id,sum(salary) total from employees group by
department_id;
```

+-----+-----+

	department_id		total	
--	---------------	--	-------	--

+-----+-----+

	60		28800	
--	----	--	-------	--

	90		58000	
--	----	--	-------	--

	100		51600	
--	-----	--	-------	--

	30		14100	
--	----	--	-------	--

+-----+-----+

4 rows in set (0.00 sec)

**11.** Write a query to get the average salary for each job ID excluding programmer.

```
mysql> SELECT job_id, AVG(salary)
```

-> FROM employees

-> WHERE job\_id <> 'IT\_PROG'

-> GROUP BY job\_id;

+-----+-----+

	job_id		AVG(salary)	
--	--------	--	-------------	--

+-----+-----+



AD_PRES		24000	
AD_VP		17000	
IT_PROG		4600	
FI_MGR		12000	
FI_ACCOUNT		8033.333333333333	
FI_ACCOUNT		7800	
FI_ACCOUNT		7700	
PU_CLERK		3100	
PU_MAN		11000	
IT_PROG		9000	

+-----+-----+

**12.** Write a query to get the total salary, maximum, minimum, average salary of employees (job ID wise), for department ID 90 only.

```
mysql> select job_id, min(salary),max(salary),avg(salary),sum(salary) from
employees where department_id=90 group by job_id ;
```

+-----+-----+-----+-----+-----+

job_id	min(salary)	max(salary)	avg(salary)	sum(salary)	
--------	-------------	-------------	-------------	-------------	--

+-----+-----+-----+-----+-----+

AD_PRES		24000		24000		24000		24000	
---------	--	-------	--	-------	--	-------	--	-------	--

AD_VP		17000		17000		17000		34000	
-------	--	-------	--	-------	--	-------	--	-------	--

+-----+-----+-----+-----+-----+

2 rows in set (0.00 sec)

**13.** Write a query to get the job ID and maximum salary of the employees where maximum salary is greater than or equal to \$4000.

```
mysql> SELECT job_id, MAX(salary) FROM employees GROUP BY job_id
-> HAVING MAX(salary) >=4000;
```

```
+-----+-----+
| job_id | MAX(salary) |
+-----+-----+
| IT_PROG | 6000 |
| AD_PRES | 24000 |
| AD_VP | 17000 |
| IT_PROG | 4800 |
| FI_MGR | 12000 |
| FI_ACCOUNT | 9000 |
| FI_ACCOUNT | 7800 |
| FI_ACCOUNT | 7700 |
| PU_MAN | 11000 |
| IT_PROG | 9000 |
+-----+-----+
```

**14.** Write a query to get the average salary for all departments employing more than 10 employees.

```
mysql> SELECT department_id, AVG(salary), COUNT(*)
-> FROM employees
-> GROUP BY department_id
-> HAVING COUNT(*) > 10;
```

Empty set (0.00 sec)