

CREATING DATABASE

```
mysql> create database assignment_2;  
Query OK, 1 row affected (0.01 sec)
```

#CREATING TABLE

```
mysql> CREATE table employee_A(Employee_id int primary key auto_increment,First_Name  
varchar(20),Last_Name varchar(20),email varchar(20),phone_number float ,Hire_date  
date,job_id int,salary float(6,2),commission_pct float(3,2),manager_id int,department_id int);  
Query OK, 0 rows affected, 2 warnings (0.03 sec)
```

#DESCRIBING TABLE

```
mysql> desc employee_A;
```

Field	Type	Null	Key	Default	Extra
Employee_id	int	NO	PRI	NULL	auto_increment
First_Name	varchar(20)	YES		NULL	
Last_Name	varchar(20)	YES		NULL	
email	varchar(20)	YES		NULL	
phone_number	float	YES		NULL	
Hire_date	date	YES		NULL	
job_id	int	YES		NULL	
salary	float(6,2)	YES		NULL	
commission_pct	float(3,2)	YES		NULL	
manager_id	int	YES		NULL	
department_id	int	YES		NULL	

```
11 rows in set (0.03 sec)
```

TABLE WITH VALUE INSERTED

```
mysql> select*from employee_a;
```

Employee_id	First_Name	Last_Name	email	phone_number	Hire_date	job_id	salary	commission_pct	manager_id	department_id
-------------	------------	-----------	-------	--------------	-----------	--------	--------	----------------	------------	---------------

1	steve	king	sking	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
0	90							
4	neena	kochhar	nkochhar	515.123.4568	1987-06-18	AD_VP	17000.00	
100	90							
5	Lex	de haan	ldehaan	515.123.4569	1987-06-19	AD_VP	17000.00	
100	90							
6	Lex	de haan	ldehaan	590.123.4567	1987-06-20	ID_PROG	9000.00	
102	60							
7	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
8	David	Austin	daustin	590.123.4569	1987-06-22	ID_PROG	4800.00	
103	60							
9	David	Austin	daustin	590.123.4569	1987-06-22	ID_PROG	4800.00	
103	60							
10	David	Austin	daustin	590.123.4569	1987-06-22	ID_PROG	4800.00	
103	60							
11	David	Austin	daustin	590.123.4569	1987-06-22	ID_PROG	4800.00	
103	60							
12	David	Austin	daustin	590.123.4569	1987-06-22	ID_PROG	4800.00	
103	60							
13	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
14	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
15	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
16	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
17	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							
18	Bruce	ernst	bernst	590.123.4568	1987-06-21	ID_PROG	7000.00	
103	60							

```

+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+
16 rows in set (0.00 sec)

```

PERFORMING GROUP BY FUNCTIONS FOR ABOVE TABLE

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

```
mysql> select count(distinct job_id ) as job_count from employee_a;
```

```

+-----+
| job_count |
+-----+

```

```
|      3 |
+-----+
1 row in set (0.01 sec)
```

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

```
mysql> select sum(salary) from employee_a;
+-----+
| sum(salary) |
+-----+
|  78800.00 |
+-----+
1 row in set (0.01 sec)
```

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

```
mysql> select min(salary) from employee_a;
+-----+
| min(salary) |
+-----+
|   4800.00 |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> select max(salary) from employee_a where JOB_ID='ID_PROG';
+-----+
| max(salary) |
+-----+
|   9000.00 |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> SELECT avg(salary) as avg_salary,count(*) as no_of_emp from employee_a where
department_id=90;
+-----+-----+
| avg_salary | no_of_emp |
+-----+-----+
| 19333.33333 |      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 max(salary) as highest_salary,min(salary) as lowest_salary,sum(salary) as sum_salary,avg(salary) from employee_a;
```

highest_salary	lowest_salary	sum_salary	avg(salary)
24000.00	4800.00	78800.00	13133.333333

1 row in set (0.00 sec)

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

```
mysql> select job_id,count(*) as no_of_employess from employee_a group by job_id;
```

job_id	no_of_employess
AD_PRES	1
AD_VP	2
ID_PROG	3

3 rows in set (0.00 sec)

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

```
mysql> select max(salary) - min(salary) as salary_diff from employee_a;
```

salary_diff
19200.00

1 row in set (0.00 sec)

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

```
mysql> select manager_id,salary from employee_a where salary= (select min(salary) from employee_a);
```

manager_id	salary
103	4800.00

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

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

```
mysql> select department_id ,sum(salary) as amt_payable from employee_a group by
department_id;
```

```
+-----+-----+
| department_id | amt_payable |
+-----+-----+
|          90 | 58000.00 |
|          60 | 20800.00 |
+-----+-----+
```

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

```
mysql> select department_id ,avg(salary) as average_salary from employee_a where job_id
!='ID_PROG' group by department_id ;
```

```
+-----+-----+
| department_id | average_salary |
+-----+-----+
|          90 | 19333.333333 |
+-----+-----+
```

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 department_id ,sum(salary) as total_salary,max(salary) as max_salary,min(salary)
as min_salary,avg(salary) as avg_salary from employee_a where department_id =90 group by
department_id ;
```

```
+-----+-----+-----+-----+-----+
| department_id | total_salary | max_salary | min_salary | avg_salary |
+-----+-----+-----+-----+-----+
|          90 | 58000.00 | 24000.00 | 17000.00 | 19333.333333 |
+-----+-----+-----+-----+-----+
```

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.

```
select job_id,max(salary) as max_salary from employee_a group by job_id having
max(salary)>=4000;
```

```
+-----+-----+
| job_id | max_salary |
+-----+-----+
```

AD_PRES	24000.00
AD_VP	17000.00
ID_PROG	9000.00

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

```
mysql> select department_id,avg(salary) as avg_salary from employee_a group by department_id
having count(*)>10;
```

department_id	avg_salary
60	6307.692308

1 row in set (0.00 sec)