- **mysql> use hrcopydatabase;**

- **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 (0.64 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 | |
- +----------------+-------------+------+-----+---------+-------+
- 11 rows in set (0.02 sec)

- **mysql> insert into employees values(100,'Steven','King','SKING' ,5151234567, '1987-06-17' ,' AD_PRES', 24000.00, 0.00 , 0 , 90);**

- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(101,' Neena',' Kochhar','NKOCHHAR', 5151234568,'1987-06-18 ',' AD_VP', 17000.00 , 0.00, 100,90);**
- Query OK, 1 row affected, 1 warning (0.03 sec)

- **mysql> insert into employees values(102,'Lex ', 'De Haan',' LDEHAAN', 5151234569,' 1987-06-19',' AD_VP', 17000.00 , 0.00 , 100 , 90);**
- Query OK, 1 row affected, 1 warning (0.03 sec)

- **mysql> insert into employees values(103 ,' Alexander' , ' Hunold ' , ' AHUNOLD' , 5904234567,'1987-06-20 ',' IT_PROT', 9000.00 , 0.00 , 102 , 60);**
- Query OK, 1 row affected, 1 warning (0.02 sec)

- **mysql> insert into employees values(104 ,'Bruce','Ernst' , 'BERNST',5904234568 ,'1987-06-21' ,'IT_PROG' ,6000.00 ,0.00 ,103 ,60);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(105 ,'David' , 'Austin ' , 'DAUSTIN ' ,5904234569,'1987-06-22 ','IT_PROG ',4800.00 ,0.00 ,103 ,60);**
- Query OK, 1 row affected, 1 warning (0.02 sec)

- **mysql> insert into employees values(106,'Valli','Pataballa' ,'VPATABAL' ,5904234560 ,'1987-06-23' ,'IT_PROG ',4800.00 ,0.00 ,103 ,60);**
- Query OK, 1 row affected (0.02 sec)

- **mysql> insert into employees values(107, 'Diana', 'Lorentz ' ,'DLORENTZ ' ,5904235567 , '1987-06-24' ,'IT_PROG ' ,4200.00 ,0.00 ,103 ,60);**
- Query OK, 1 row affected (0.02 sec)

- **mysql> insert into employees values(108 , 'Nancy' , 'Greenberg' , 'NGREENBE ',5151244569,'1987-06-25' ,'FI_MGR ',12000.00 ,0.00 ,101 ,100);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(110, 'John', 'Chen', 'JCHEN ',5151244269,'1987-06-27','FI_ACCOUNT', 8200.00 , 0.00 , 108,100);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(111, 'Ismael ', 'Sciarra','ISCIARRA', 5151244369, '1987-06-28' ,' FI_ACCOUNT ',7700.00 , 0.00,108,100);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(112, 'Jose Manuel ','Urman',' JMURMAN ',5151244469,'1987-06-29', 'FI_ACCOUNT ',7800.00,0.00 ,108 ,100);**
- Query OK, 1 row affected (0.02 sec)

- **mysql> insert into employees values(113, 'Luis' ,'Popp ','LPOPP' ,5151244567 ,'1987-06-30','FI_ACCOUNT',6900.00,0.00,108,100);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> insert into employees values(114,'Den' , 'Raphaely', 'DRAPHEAL ', 5151274561 ,'1987-07-01' , 'PU_MAN',11000.00,0.00 ,100,30);**
- Query OK, 1 row affected (0.02 sec)

- **mysql> insert into employees values (115 ,' Alexander' , ' Khoo ' , ' AKHOO', 5151274562 , '987-07-02' ,' PU_CLERK ' ,3100.00 , 0.00 ,114, 30);**
- Query OK, 1 row affected (0.03 sec)

- **mysql> select * from employees;**

- +-------------+--------------+-----------+-----------+--------------+------------+----------------+---------+---------------+------------+---------------+
- | EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
- +-------------+--------------+-----------+-----------+--------------+------------+----------------+---------+---------------+------------+---------------+
- | 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 |
- | 103 | Alexander | Hunold | AHUNOLD | 5904234567 | 1987-06-20 | IT_PROT | 9000 | 0 | 102 | 60 |
- | 104 | Bruce | Ernst | BERNST | 5904234568 | 1987-06-21 | IT_PROG | 6000 | 0 | 103 | 60 |
- | 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 |
- | 111 | Ismael | Sciarra | ISCIARRA | 5151244369 | 1987-06-28 | FI_ACCOUNT | 7700 | 0 | 108 | 100 |
- | 112 | Jose Manuel | Urman | JMURMAN | 5151244469 | 1987-06-29 | FI_ACCOUNT | 7800 | 0 | 108 | 100 |
- | 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 |

- | 115 | Alexander | Khoo | AKHOO | 5151274562 | 0987-07-02 | PU_CLERK | 3100 | 0 | 114 | 30 |
- +-------------+-------------+-----------+-----------+-------------+------------+----------+--------+---------------+------------+---------------+
- 16 rows in set (0.00 sec)

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

```
mysql> select count(job_id)as number_of_jobs from employees;
+---------------+
| number_of_jobs |
+---------------+
|          16 |
+---------------+
1 row in set (0.02 sec)
```

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

```
mysql> select sum(salary) as Total_Salaries_Payable from employees;

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

| Total_Salaries_Payable |

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

|             152500 |

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

1 row in set (0.00 sec)
```

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

```
mysql> select min(salary) as Minimun_Salary from employees;
+---------------+
| Minimun_Salary |
+---------------+
|          3100 |
+---------------+
1 row in set (0.01 sec)
```

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

```
mysql> select max(salary) as Maximun_Salary from employees where
job_id='it_prog' ;

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

| Maximun_Salary |

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

|          6000 |

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

1 row in set (0.01 sec)

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

```
mysql> select avg(Salary)as Average_Salary,count(employee_id)as
Number_OF_Employees from employees where department_id=90;

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

| Average_Salary     | Number_OF_Employees |

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

| 19333.333333333332 |                   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 Total_Salary,avg(salary)as Average_Salary from employees;

```
+----------------+--------------+-------------+----------------+
| Highest_Salary | Lowest_Salary | Total_Salary | Average_Salary |
+----------------+--------------+-------------+----------------+
|          24000 |         3100 |      152500 |        9531.25 |
+----------------+--------------+-------------+----------------+
```

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(*) from employees group by job_id;
+--------------+----------+
| job_id       | count(*) |
+--------------+----------+
| AD_PRES      |        1 |
| AD_VP        |        2 |
| IT_PROT      |        1 |
| IT_PROG      |        1 |
| IT_PROG      |        3 |
| FI_MGR       |        1 |
| FI_ACCOUNT   |        3 |
| FI_ACCOUNT   |        1 |
| FI_ACCOUNT   |        1 |
| PU_MAN       |        1 |
| PU_CLERK     |        1 |
+--------------+----------+
11 rows in set (0.01 sec)
```

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

```
mysql> select max(salary)-min(salary)as Difference from employees;
+------------+
| Difference |
+------------+
|      20900 |
```

```
+------------+
1 row in set (0.01 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,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 |
+------------+-------------+
7 rows 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 Total from employees group by department_id;
+---------------+-------+
| department_id | Total |
+---------------+-------+
|            90 | 58000 |
|            60 | 28800 |
|           100 | 51600 |
|            30 | 14100 |
```

```
+---------------+-------+
4 rows in set (0.00 sec)4 rows in set (0.01 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_PROT     |            9000 |
| IT_PROG      |            4600 |
| FI_MGR       |           12000 |
| FI_ACCOUNT   | 8033.333333333333 |
|  FI_ACCOUNT  |            7700 |
| FI_ACCOUNT   |            7800 |
| PU_MAN       |           11000 |
|  PU_CLERK    |            3100 |
+--------------+------------------+
10 rows in set (0.01 sec)
```

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,sum(salary),min(Salary),max(salary),avg(salary)from
employees where department_id=90 group by job_id;

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

| job_id   | sum(salary) | min(Salary) | max(salary) | avg(salary) |

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

|  AD_PRES |       24000 |       24000 |       24000 |       24000 |

|  AD_VP   |       34000 |       17000 |       17000 |       17000 |

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

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) |
+--------------+-------------+
| AD_PRES      |       24000 |
| AD_VP        |       17000 |
| IT_PROT      |        9000 |
| IT_PROG      |        6000 |
| IT_PROG      |        4800 |
| FI_MGR       |       12000 |
| FI_ACCOUNT   |        9000 |
| FI_ACCOUNT   |        7700 |
| FI_ACCOUNT   |        7800 |
| PU_MAN       |       11000 |
+--------------+-------------+
10 rows in set (0.00 sec)
```

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)
```