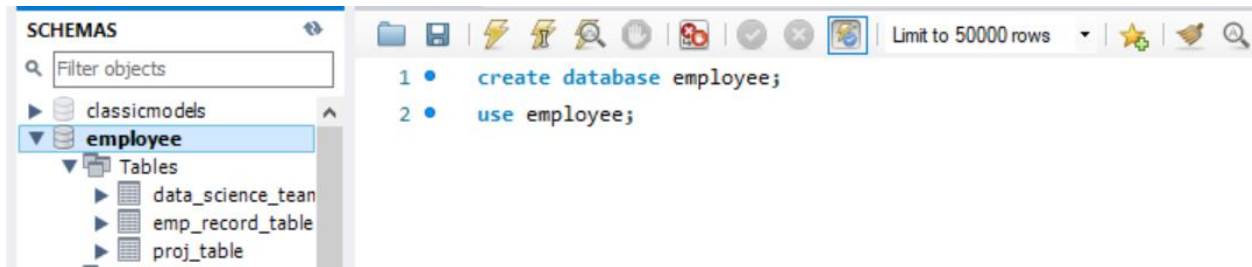
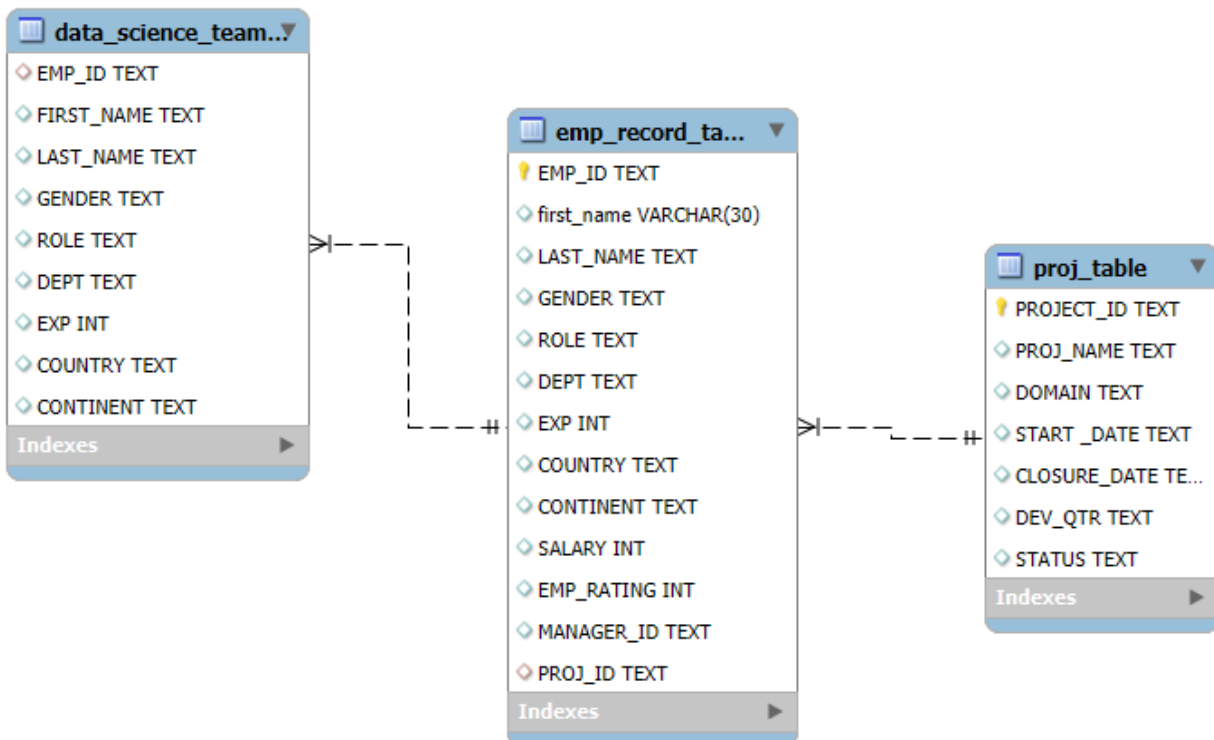


- Create a database named *employee*, then import **data_science_team.csv**, **proj_table.csv** and **emp_record_table.csv** into the **employee** database from the given resources.



2) Create an ER diagram for the given **employee** database.



3) Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, and DEPARTMENT from the employee record table, and make a list of employees and details of their department.

```
7 • SELECT
8     EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
9 FROM
10    emp_record_table;
```

record_table 1 x

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | DEPT |
|--------|------------|-----------|--------|------------|
| E001 | Arthur | Black | M | ALL |
| E005 | Eric | Hoffman | M | FINANCE |
| E010 | William | Butler | M | AUTOMOTIVE |
| E052 | Dianna | Wilson | F | HEALTHCARE |
| E057 | Dorothy | Wilson | F | HEALTHCARE |
| E083 | Patrick | Voltz | M | HEALTHCARE |

Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--------|--|-----------------------|
| 1 | 12:40:43 | SELECT | EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT FROM emp_r... 19 row(s) returned | 0.031 sec / 0.000 sec |

4) Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, and EMP_RATING if the EMP_RATING is:

less than two---

```
12 • SELECT
13     EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING
14 FROM
15     emp_record_table
16 WHERE
17     EMP_RATING < 2;
```

Result Grid

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | DEPT | EMP_RATING |
|--------|------------|-----------|--------|------------|------------|
| E057 | Dorothy | Wilson | F | HEALTHCARE | 1 |
| E532 | Claire | Brennan | F | AUTOMOTIVE | 1 |
| E620 | Katrina | Allen | F | RETAIL | 1 |

| emp_record_table 2 x | | | | |
|----------------------|----------|--|---------------------------|--|
| Output | | | | |
| Action Output | | | | |
| # | Time | Action | Message | |
| ✓ 3 | 21:07:49 | use employee | 0 row(s) affected | |
| ✗ 4 | 21:09:08 | --Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, and DEP... | Error Code: 1064. You hav | |
| ✓ 5 | 21:09:20 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT from emp_record_tabl... | 19 row(s) returned | |
| ✓ 6 | 21:14:19 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT,EMP_RATING from e... | 3 row(s) returned | |

greater than four ---

21 • **SELECT**
22 EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING
23 FROM
24 emp_record_table
25 WHERE
26 EMP_RATING > 4;

result Grid
Filter Rows:
Export:
Wrap Cell Content:

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | DEPT | EMP_RATING |
|--------|------------|-----------|--------|------------|------------|
| E001 | Arthur | Black | M | ALL | 5 |
| E052 | Dianna | Wilson | F | HEALTHCARE | 5 |
| E083 | Patrick | Voltz | M | HEALTHCARE | 5 |
| E204 | Karene | Nowak | F | AUTOMOTIVE | 5 |

Result Grid
Form Editor

ip_record_table 3 x
Read Only

Input

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|--|-----------------------|
| 4 | 21:09:08 | --Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, and DEP... | Error Code: 1064. You have an error in your SQL syntax; check the manual that corre... | 0.000 sec |
| 5 | 21:09:20 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT from emp_record_tabl... | 19 row(s) returned | 0.015 sec / 0.000 sec |
| 6 | 21:14:19 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT,EMP_RATING from e... | 3 row(s) returned | 0.000 sec / 0.000 sec |
| 7 | 21:16:51 | SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATIN... | 4 row(s) returned | 0.000 sec / 0.000 sec |

between two and four-

```
29 • SELECT
30     EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING
31 FROM
32     emp_record_table
33 WHERE
34     EMP_RATING BETWEEN 2 AND 4;
```

Result Grid

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | DEPT | EMP_RATING |
|--------|------------|-----------|--------|------------|------------|
| E005 | Eric | Hoffman | M | FINANCE | 3 |
| E010 | William | Butler | M | AUTOMOTIVE | 2 |
| E103 | Emily | Grove | F | FINANCE | 4 |
| E245 | Nian | Zhen | M | RETAIL | 2 |
| E260 | Roy | Collins | M | RETAIL | 3 |
| E403 | Steve | Hoffman | M | FINANCE | 3 |

emp_record_table 4 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|--------------------|-----------------------|
| 5 | 21:09:20 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT from emp_record_tabl... | 19 row(s) returned | 0.015 sec / 0.000 sec |
| 6 | 21:14:19 | select EMP_ID,FIRST_NAME,LAST_NAME,GENDER,DEPT,EMP_RATING from e... | 3 row(s) returned | 0.000 sec / 0.000 sec |
| 7 | 21:16:51 | SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATIN... | 4 row(s) returned | 0.000 sec / 0.000 sec |
| 8 | 21:19:46 | SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATIN... | 12 row(s) returned | 0.000 sec / 0.000 sec |

5. Write a query to concatenate the FIRST_NAME and the LAST_NAME of employees in the Finance department from the employee table and then give the resultant column alias as NAME.

```
37 • SELECT
38     FIRST_NAME,
39     last_name,
40     CONCAT(FIRST_NAME, ' ', LAST_NAME) AS NAME
41 FROM
42     emp_record_table
43 WHERE
44     dept = 'Finance';
```

Result Grid

| FIRST_NAME | last_name | NAME |
|------------|-----------|---------------|
| Eric | Hoffman | Eric Hoffman |
| Emily | Grove | Emily Grove |
| Steve | Hoffman | Steve Hoffman |

Result 6 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|-------------------|-----------------------|
| 9 | 21:20:35 | select concat(FIRST_NAME, ''LAST_NAME) as NAME from emp_record_table whe... | 3 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 21:22:24 | select FIRST_NAME,last_name, concat (FIRST_NAME, ''LAST_NAME) as NAMEf... | 3 row(s) returned | 0.000 sec / 0.000 sec |

6 Write a query to list only those employees who have someone reporting to them. Also, show the number of reporters (including the President).

```

47 • select MANAGER_ID, count(emp_id) from emp_record_table
48 where manager_id is not null
49 group by manager_id;

```

Result Grid

| MANAGER_ID | count(emp_id) |
|------------|---------------|
| E103 | 2 |
| E428 | 3 |
| E083 | 3 |
| E001 | 5 |
| E583 | 3 |
| E612 | 2 |

Result 7 x Read Only

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|---|-----------------------|
| 11 | 21:26:21 | select manger_id, count(emp_id) from emp_record_table where manager_id is not ... | Error Code: 1054. Unknown column 'manger_id' in field list' | 0.000 sec |
| 12 | 21:26:37 | select MANAGER_ID, count(emp_id) from emp_record_table where manager_id is... | 6 row(s) returned | 0.015 sec / 0.000 sec |

7. Write a query to list down all the employees from the healthcare and finance departments using union. Take data from the employee record table.

```

52 • select * from emp_record_table where dept ="FINANCE" union select * from emp_record_table where dept ="HEALTHCARE" ;

```

Result Grid

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | SALARY | EMP_RATING | MANAGER_ID | PROJ_ID |
|--------|------------|-----------|--------|--------------------------|------------|-----|---------|---------------|--------|------------|------------|---------|
| E005 | Eric | Hoffman | M | LEAD DATA SCIENTIST | FINANCE | 11 | USA | NORTH AMERICA | 8500 | 3 | E103 | P105 |
| E103 | Emily | Grove | F | MANAGER | FINANCE | 14 | CANADA | NORTH AMERICA | 10500 | 4 | E001 | NULL |
| E403 | Steve | Hoffman | M | ASSOCIATE DATA SCIENTIST | FINANCE | 4 | USA | NORTH AMERICA | 5000 | 3 | E103 | P105 |
| E052 | Dianna | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 6 | CANADA | NORTH AMERICA | 5500 | 5 | E083 | P103 |
| E057 | Dorothy | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 9 | USA | NORTH AMERICA | 7700 | 1 | E083 | P302 |

Result 9 x Read Only

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|-------------------|-----------------------|
| 13 | 21:30:12 | select * from emp_record_table where dept ="FINANCE" union select * from emp_re... | 7 row(s) returned | 0.000 sec / 0.000 sec |
| 14 | 21:31:21 | select * from emp_record_table where dept ="FINANCE" union select * from emp_re... | 7 row(s) returned | 0.000 sec / 0.000 sec |

8. Write a query to list down employee details such as EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPARTMENT, and EMP_RATING grouped by dept. Also include the respective employee rating along with the max emp rating for the department.

```

54 • SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EMP_RATING, MAX(EMP_RATING)
55 OVER (PARTITION BY DEPT) AS MAX_RATING
56 FROM employee.emp_record_table;
57

```

Result Grid

| EMP_ID | FIRST_NAME | LAST_NAME | ROLE | DEPT | EMP_RATING | MAX_RATING |
|--------|------------|-----------|--------------------------|------------|------------|------------|
| E001 | Arthur | Black | PRESIDENT | ALL | 5 | 5 |
| E010 | William | Butler | LEAD DATA SCIENTIST | AUTOMOTIVE | 2 | 5 |
| E204 | Karene | Nowak | SENIOR DATA SCIENTIST | AUTOMOTIVE | 5 | 5 |
| E428 | Pete | Allen | MANAGER | AUTOMOTIVE | 4 | 5 |
| E532 | Claire | Brennan | ASSOCIATE DATA SCIENTIST | AUTOMOTIVE | 1 | 5 |
| E005 | Eric | Hoffman | LEAD DATA SCIENTIST | FINANCE | 3 | 4 |

Result 10 x

Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|---|-----------------------|
| 15 | 21:35:55 | select emp-id,first_name,last_name,dept,emp_rating from emp_record_table group by... | Error Code: 1054. Unknown column 'emp' in field list' | 0.000 sec |
| 16 | 21:37:39 | SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EMP_RATING, MAX(E... | 19 row(s) returned | 0.000 sec / 0.000 sec |

9) Write a query to calculate the minimum and the maximum salary of the employees in each role. Take data from the employee record table.

```

59 • SELECT ROLE, MIN(SALARY) AS MIN_SALARY, MAX(SALARY)
60 FROM emp_record_table group by ROLE;
61

```

Result Grid

| ROLE | MIN_SALARY | MAX(SALARY) |
|--------------------------|------------|-------------|
| PRESIDENT | 16500 | 16500 |
| LEAD DATA SCIENTIST | 8500 | 9000 |
| SENIOR DATA SCIENTIST | 5500 | 7700 |
| MANAGER | 8500 | 11000 |
| ASSOCIATE DATA SCIENTIST | 4000 | 5000 |
| JUNIOR DATA SCIENTIST | 2800 | 3000 |

Result 12 x

Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|-------------------|-----------------------|
| 17 | 22:03:38 | SELECT ROLE, MIN(SALARY) AS MIN_SALARY, MAX(SALARY) FROM emp_rec... | 6 row(s) returned | 0.015 sec / 0.000 sec |
| 18 | 22:03:48 | SELECT ROLE, MIN(SALARY) AS MIN_SALARY, MAX(SALARY) FROM emp_reco... | 6 row(s) returned | 0.000 sec / 0.000 sec |

10) Write a query to assign ranks to each employee based on their experience. Take data from the employee record table.

61
62
63 • `SELECT *,rank() OVER(order by EXP DESC) as EMP_EXP_RANK`
64 `from employee.emp_record_table;`
65

Result Grid

| name | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | SALARY | EMP_RATING | MANAGER_ID | PROJ_ID | EMP_EXP_RANK |
|------|-----------|--------|---------------------|------------|-----|----------|---------------|--------|------------|------------|---------|--------------|
| | Black | M | PRESIDENT | ALL | 20 | USA | NORTH AMERICA | 16500 | 5 | HULL | HULL | 1 |
| | Voltz | M | MANAGER | HEALTHCARE | 15 | USA | NORTH AMERICA | 9500 | 5 | E001 | HULL | 2 |
| | Grove | F | MANAGER | FINANCE | 14 | CANADA | NORTH AMERICA | 10500 | 4 | E001 | HULL | 3 |
| | Allen | M | MANAGER | AUTOMOTIVE | 14 | GERMANY | EUROPE | 11000 | 4 | E001 | HULL | 3 |
| | Hale | F | MANAGER | RETAIL | 14 | COLOMBIA | SOUTH AMERICA | 10000 | 2 | E001 | HULL | 3 |
| | Norris | F | MANAGER | RETAIL | 13 | INDIA | ASIA | 8500 | 4 | E001 | HULL | 6 |
| | ... | M | LEAD DATA SCIENTIST | AUTOMOTIVE | 12 | FRANCE | EUROPE | 9000 | 2 | E428 | D304 | 7 |

Result 1 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---|--------------------|-----------------------|
| 1 | 13:00:18 | SELECT *,rank() OVER(order by EXP DESC) as EMP_EXP_RANK from employee.em... | 19 row(s) returned | 0.016 sec / 0.000 sec |

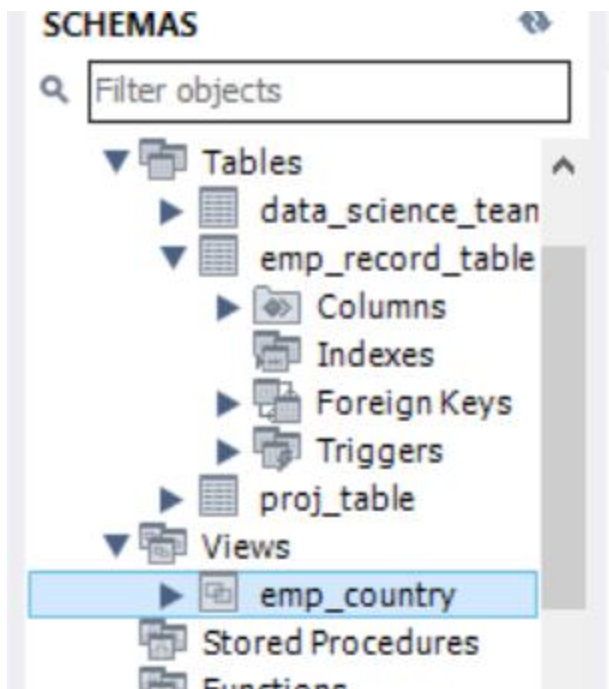
11) Write a query to create a view that displays employees in various countries whose salary is more than six thousand. Take data from the employee record table.

71 • `create view emp_COUNTRY as (select * from emp_record_table where SALARY > 6000);`
72

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|-------------------|------------------|
| 35 | 22:21:58 | DROP VIEW 'employee'.emp_country | 0 row(s) affected | 0.031 sec |
| 36 | 22:22:04 | create view emp_COUNTRY as (select * from emp_record_table where SALARY > 6... | 0 row(s) affected | 0.015 sec |



72 • `select * from emp_country ;`

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: |

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | SALARY | EMP_RATING | MANAGER_ID | PROJ_ID |
|--------|------------|-----------|--------|-----------------------|------------|-----|---------|---------------|--------|------------|------------|---------|
| E001 | Arthur | Black | M | PRESIDENT | ALL | 20 | USA | NORTH AMERICA | 16500 | 5 | NULL | NULL |
| E005 | Eric | Hoffman | M | LEAD DATA SCIENTIST | FINANCE | 11 | USA | NORTH AMERICA | 8500 | 3 | E103 | P105 |
| E010 | William | Butler | M | LEAD DATA SCIENTIST | AUTOMOTIVE | 12 | FRANCE | EUROPE | 9000 | 2 | E428 | P204 |
| E057 | Dorothy | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 9 | USA | NORTH AMERICA | 7700 | 1 | E083 | P302 |
| E083 | Patrick | Voltz | M | MANAGER | HEALTHCARE | 15 | USA | NORTH AMERICA | 9500 | 5 | E001 | PROJ1 |

emp_country 22 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|--|-----------------------|
| 37 | 22:23:06 | select * emp_country | Error Code: 1064. You have an error in your SQL syntax; check the manual that corre... | 0.000 sec |
| 38 | 22:23:11 | select * from emp_country LIMIT 0, 50000 | 12 row(s) returned | 0.000 sec / 0.000 sec |

Read Only

12) Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.


```

74 • select * from emp_record_table where emp_id in
75 (select emp_id from emp_record_table where exp > 10);
76

```

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | SALARY | EMP_RATING | MANAGER_ID | PROJ_ID |
|--------|------------|-----------|--------|---------------------|------------|-----|---------|---------------|--------|------------|------------|---------|
| E001 | Arthur | Black | M | PRESIDENT | ALL | 20 | USA | NORTH AMERICA | 16500 | 5 | NULL | NULL |
| E005 | Eric | Hoffman | M | LEAD DATA SCIENTIST | FINANCE | 11 | USA | NORTH AMERICA | 8500 | 3 | E103 | P105 |
| E010 | William | Butler | M | LEAD DATA SCIENTIST | AUTOMOTIVE | 12 | FRANCE | EUROPE | 9000 | 2 | E428 | P204 |
| E083 | Patrick | Voltz | M | MANAGER | HEALTHCARE | 15 | USA | NORTH AMERICA | 9500 | 5 | E001 | NULL |
| E103 | Emily | Grove | F | MANAGER | FINANCE | 14 | CANADA | NORTH AMERICA | 10500 | 4 | E001 | NULL |
| E428 | Pete | Allen | M | MANAGER | AUTOMOTIVE | 14 | GERMANY | EUROPE | 11000 | 4 | E001 | NULL |

emp_record_table 24 x

Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|--------------------|-----------------------|
| 39 | 22:25:17 | select * from emp_country LIMIT 0, 50000 | 12 row(s) returned | 0.000 sec / 0.000 sec |
| 40 | 22:26:50 | select * from emp_record_table where emp_id in (select emp_id from emp_record_ta... | 8 row(s) returned | 0.016 sec / 0.000 sec |

13) Write a query to create a stored procedure to retrieve the details of the employees whose experience is more than three years. Take data from the employee record table.

Navigator

country_view emp_country_view - View employee.emp_country_view employee.emp_country_view EMP_DETAILS - Routine EMP_DETAILS new_procedure - Routine

SCHEMAS

Filter objects

- Tables
 - data_science_team
 - emp_record_table
 - Columns
 - Indexes
 - Foreign Keys
 - Triggers
 - proj_table
- Views
 - emp_country
- Stored Procedures
- Functions
- septsol
 - Tables

Administration Schemas

Information

Name: EMP_DETAILS

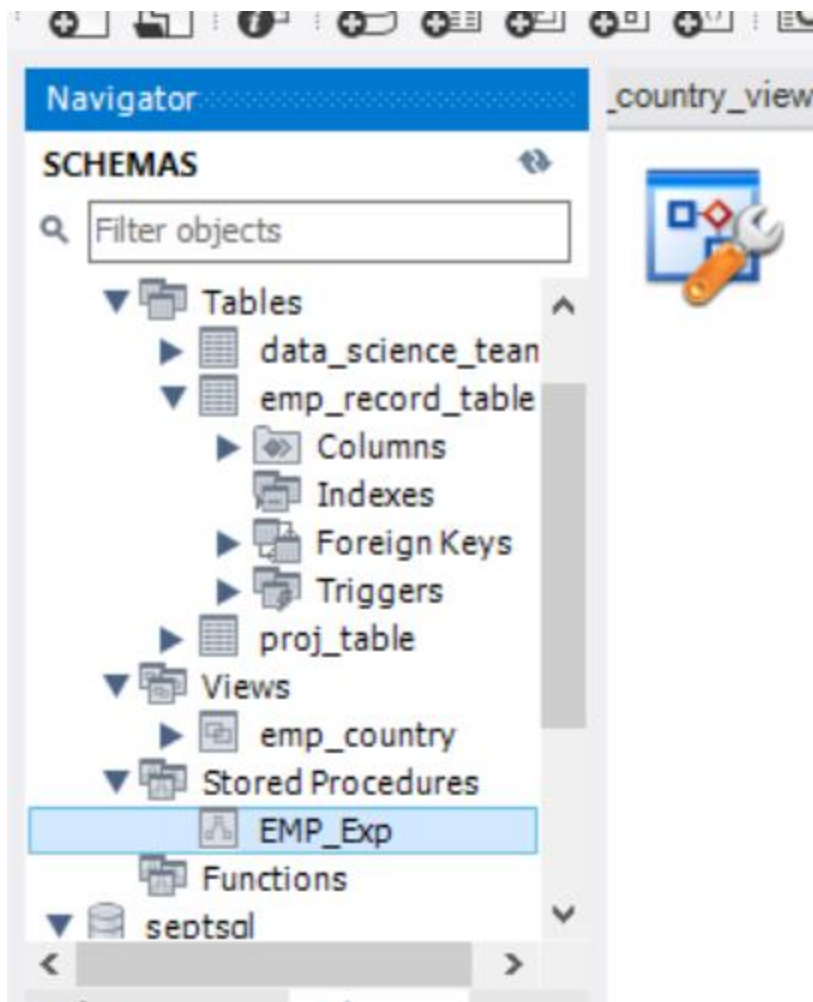
The name of the routine is parsed automatically from the DDL statement. The DDL is parsed automatically while you type.

DDL:

```

1 CREATE DEFINER='root'@'localhost' PROCEDURE `EMP_Exp`()
2 BEGIN
3 SELECT * FROM employee.emp_record_table WHERE EXP>3 order by EXP;
4 END

```



1 • `call employee.EMP_Exp();`
2

Limit to 50000 rows

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

| EMP_ID | FIRST_NAME | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | SALARY | EMP_RATING | MANAGER_ID | PROJ_ID |
|--------|------------|-----------|--------|--------------------------|------------|-----|---------|---------------|--------|------------|------------|---------|
| E403 | Steve | Hoffman | M | ASSOCIATE DATA SCIENTIST | FINANCE | 4 | USA | NORTH AMERICA | 5000 | 3 | E103 | P105 |
| E505 | Chad | Wilson | M | ASSOCIATE DATA SCIENTIST | HEALTHCARE | 5 | CANADA | NORTH AMERICA | 5000 | 2 | E083 | P103 |
| E052 | Dianna | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 6 | CANADA | NORTH AMERICA | 5500 | 5 | E083 | P103 |
| E245 | Nian | Zhen | M | SENIOR DATA SCIENTIST | RETAIL | 6 | CHINA | ASIA | 6500 | 2 | E583 | P109 |
| E260 | Roy | Collins | M | SENIOR DATA SCIENTIST | RETAIL | 7 | INDIA | ASIA | 7000 | 3 | E583 | NA |

Result 1 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--------------------------|--------------------|-----------------------|
| 44 | 22:30:36 | Apply changes to EMP_Exp | Changes applied | |
| 45 | 22:31:09 | call employee.EMP_Exp() | 15 row(s) returned | 0.000 sec / 0.000 sec |

14.) Write a query using stored procedure in the project table to check whether the job profile assigned to each employee in the data science team matches the organization's set standard.

The standard being:

For an employee with experience less than or equal to 2 years assign 'JUNIOR DATA SCIENTIST',

For an employee with the experience of 2 to 5 years assign 'ASSOCIATE DATA SCIENTIST',

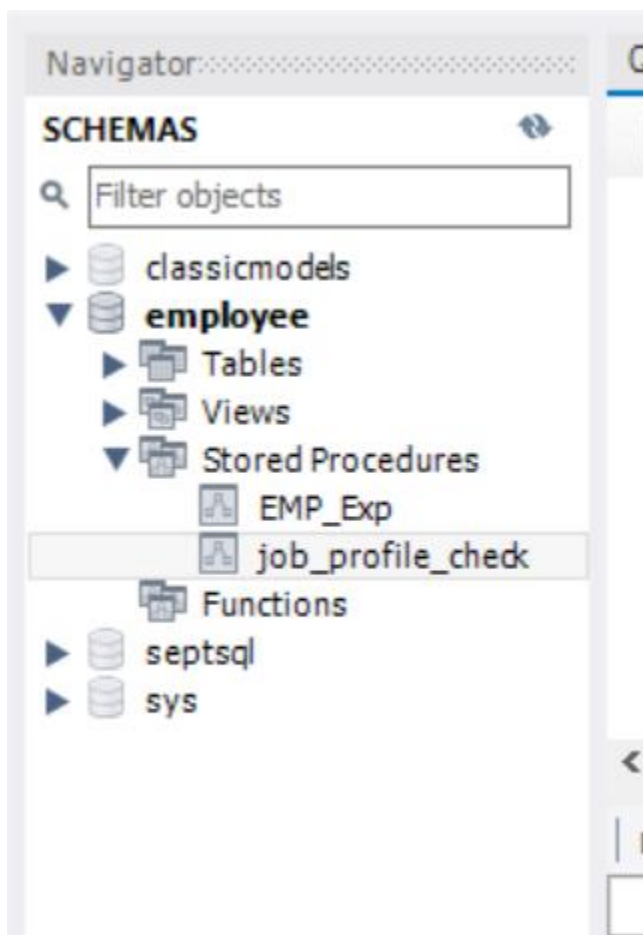
For an employee with the experience of 5 to 10 years assign 'SENIOR DATA SCIENTIST',

For an employee with the experience of 10 to 12 years assign 'LEAD DATA SCIENTIST',

For an employee with the experience of 12 to 16 years assign 'MANAGER'.




DDL:

```
1 • CREATE PROCEDURE job_profile_check ()
2 BEGIN
3 select *,case
4 when exp<=2 then "Junior Data Scientist"
5 when exp>2 and exp<=5 then "'ASSOCIATE DATA SCIENTIST"
6 when exp>5 and exp<=10 then "SENIOR DATA SCIENTIST"
7 when exp>10 and exp<=12 then "LEAD DATA SCIENTIST'"
8 when exp>12 and exp<=16 then "Manager"
9 end as title from data_science_team;
10 END
11
```






```
1 • call employee.job_profile_check();
2
```



<

Result Grid  Filter Rows: Export:  Wrap Cell Content: 

| | EMP_ID | FIRST_NAME | LAST_NAME | GENDER | ROLE | DEPT | EXP | COUNTRY | CONTINENT | title |
|---|--------|------------|-----------|--------|-----------------------|------------|-----|---------|---------------|-----------------------|
| ▶ | E005 | Eric | Hoffman | M | LEAD DATA SCIENTIST | FINANCE | 11 | USA | NORTH AMERICA | LEAD DATA SCIENTIST |
| | E010 | William | Butler | M | LEAD DATA SCIENTIST | AUTOMOTIVE | 12 | FRANCE | EUROPE | LEAD DATA SCIENTIST |
| | E052 | Dianna | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 6 | CANADA | NORTH AMERICA | SENIOR DATA SCIENTIST |
| | E057 | Dorothy | Wilson | F | SENIOR DATA SCIENTIST | HEALTHCARE | 9 | USA | NORTH AMERICA | SENIOR DATA SCIENTIST |
| | E204 | Karene | Nowak | F | SENIOR DATA SCIENTIST | AUTOMOTIVE | 8 | GERMANY | EUROPE | SENIOR DATA SCIENTIST |
| | E245 | Nian | Zhen | M | SENIOR DATA SCIENTIST | RETAIL | 6 | CHINA | ASIA | SENIOR DATA SCIENTIST |
| | E260 | Roy | Collins | M | SENIOR DATA SCIENTIST | RETAIL | 7 | INDIA | ASIA | SENIOR DATA SCIENTIST |

Output   

Output

 Action Output 

| # | Time | Action | Message | Duration / Fetch | ^ |
|-----|----------|------------------------------------|--------------------|-----------------------|---|
| ✓ 2 | 13:21:42 | Apply changes to job_profile_check | Changes applied | | |
| ✓ 3 | 13:22:04 | call employee.job_profile_check() | 13 row(s) returned | 0.093 sec / 0.000 sec | |

15) Create an index to improve the cost and performance of the query to find the employee whose FIRST_NAME is 'Eric' in the employee table after checking the execution plan.

```

64. alter table emp_record_table modify first_name varchar(50);
65. describe emp_record_table;
66. create index id_first_name on emp_record_table(first_name);
67. select * from emp_record_table where first_name="Eric";

```

| EMP_ID | first_name | LAST_NAME | GENDER | ROLE | DEPT | EXP |
|--------|------------|-----------|--------|-------------------|---------|-----|
| E005 | Eric | Hoffman | M | LEAD DATA SCIE... | FINANCE | 11 |

emp_record_table 22 x

Output

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|--|-----------------------|
| 80 | 22:48:45 | describe emp_record_table | 13 row(s) returned | 0.000 sec / 0.000 sec |
| 81 | 22:49:32 | create index id_first_name on emp_record_table(first_name) | 0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0 | 0.094 sec |
| 82 | 22:50:18 | select * from emp_record_table where first_name="Eric" | 1 row(s) returned | 0.000 sec / 0.000 sec |

16) Write a query to calculate the bonus for all the employees, based on their ratings and salaries (Use the formula: 5% of salary * employee rating).

```

80. select EMP_ID, FIRST_NAME, LAST_NAME, EMP_RATING, SALARY, (SALARY*0.05)*EMP_RATING as BONUS from emp_record_table;
81.
82.
83.
84.
85.
86.

```

| EMP_ID | FIRST_NAME | LAST_NAME | EMP_RATING | SALARY | BONUS |
|--------|------------|-----------|------------|--------|---------|
| E001 | Arthur | Black | 5 | 16500 | 4125.00 |
| E005 | Eric | Hoffman | 3 | 8500 | 1275.00 |
| E010 | William | Butler | 2 | 9000 | 900.00 |
| E052 | Dianna | Wilson | 5 | 5500 | 1375.00 |
| E057 | Dorothy | Wilson | 1 | 7700 | 385.00 |
| E083 | Patrick | Voltz | 5 | 9500 | 2375.00 |
| E103 | Emily | Grove | 4 | 10500 | 2100.00 |
| E004 | Karen | Neves | 5 | 7500 | 1875.00 |

Result 3 x

Output

Action Output

| EMP_ID | FIRST_NAME | LAST_NAME | EMP_RATING | SALARY | BONUS |
|--------|------------|-----------|------------|--------|---------|
| E001 | Arthur | Black | 5 | 16500 | 4125.00 |
| E005 | Eric | Hoffman | 3 | 8500 | 1275.00 |
| E010 | William | Butler | 2 | 9000 | 900.00 |
| E052 | Dianna | Wilson | 5 | 5500 | 1375.00 |
| E057 | Dorothy | Wilson | 1 | 7700 | 385.00 |
| E083 | Patrick | Voltz | 5 | 9500 | 2375.00 |
| E103 | Emily | Grove | 4 | 10500 | 2100.00 |
| E104 | Karen | Deane | 5 | 7500 | 1975.00 |

Result 3 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---|--------------------|-----------------------|
| 5 | 21:44:54 | select EMP_ID,FIRST_NAME, LAST_NAME, EMP_RATING, SALARY, (SALARY*0.0... | 19 row(s) returned | 0.000 sec / 0.000 sec |

17) Write a query to calculate the average salary distribution based on the continent and country. Take data from the employee record table.

```

85 • select continent, country, avg(Salary) from emp_record_table
86 group by continent, country;
87
88

```

| continent | country | avg(Salary) |
|---------------|----------|-------------|
| NORTH AMERICA | USA | 9440.0000 |
| EUROPE | FRANCE | 9000.0000 |
| NORTH AMERICA | CANADA | 7000.0000 |
| EUROPE | GERMANY | 7600.0000 |
| ASIA | CHINA | 6500.0000 |
| ASIA | INDIA | 6166.6667 |
| SOUTH AMERICA | COLOMBIA | 5600.0000 |

Result 4 x

Output

Action Output

| # | Time | Action | Message | Duration / Fetch |
|---|----------|---|--------------------|-----------------------|
| 6 | 21:45:21 | select EMP_ID,FIRST_NAME, LAST_NAME, EMP_RATING, SALARY, (SALARY*0.0... | 19 row(s) returned | 0.016 sec / 0.000 sec |
| 7 | 21:49:05 | select continent, country, avg(Salary) from emp_record_table group by continent, cou... | 7 row(s) returned | 0.000 sec / 0.000 sec |