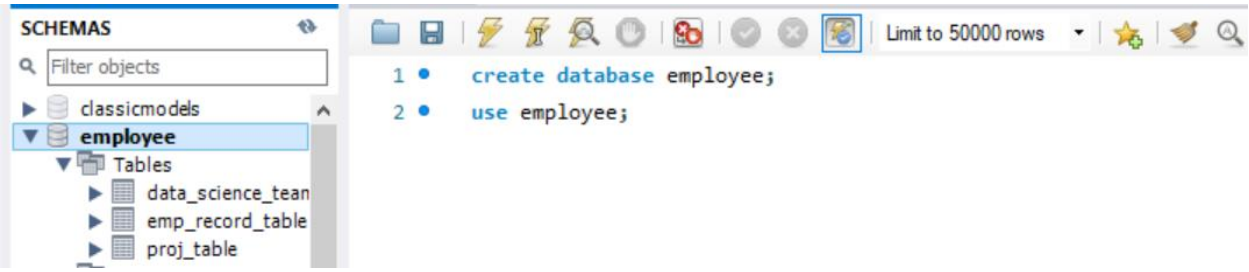
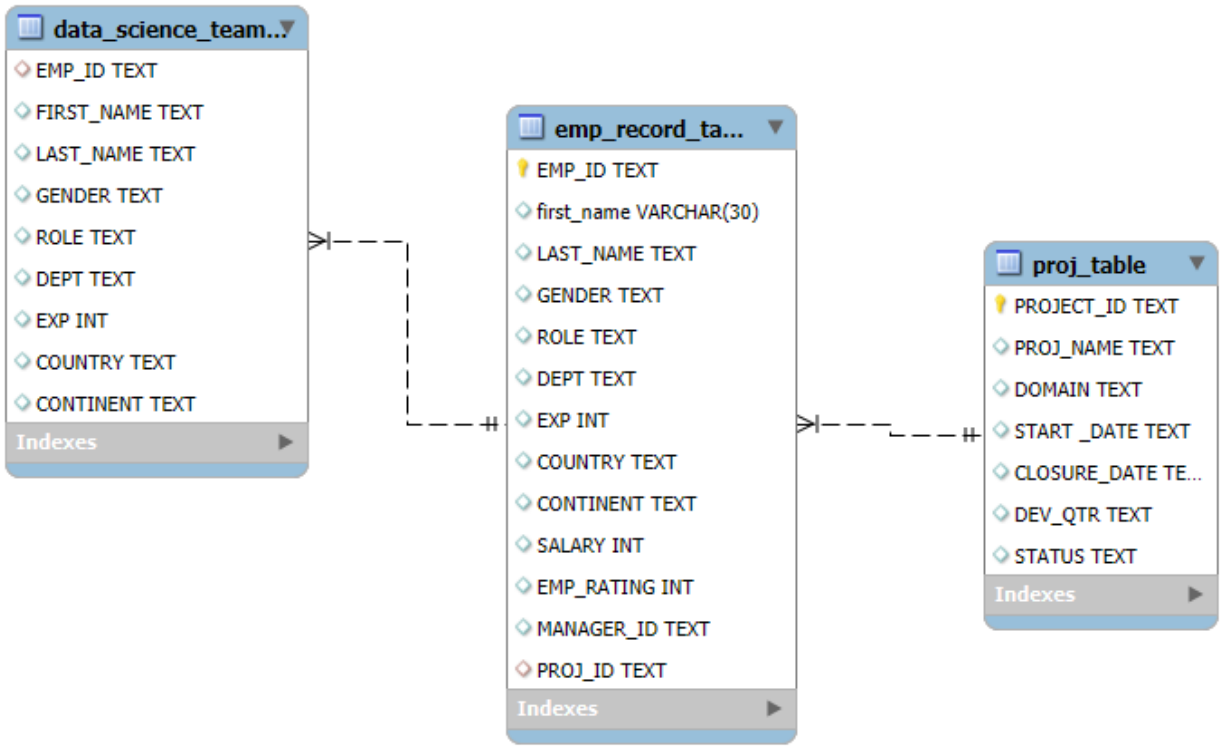
- Create a database named *employee*, then import **data_science_team.csv** **proj_table.csv** and **emp_record_table.csv** into the **employee** database from the given resources.



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;
11
```

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

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

record_table 1 | Read Only

Output

Action 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

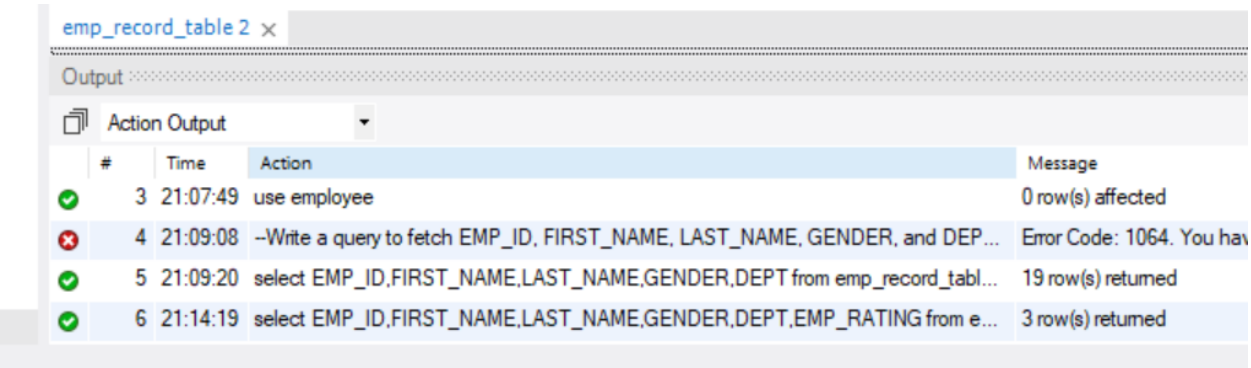
4) Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, and EMP_RATING if the EMP_RATING is:

less than two---

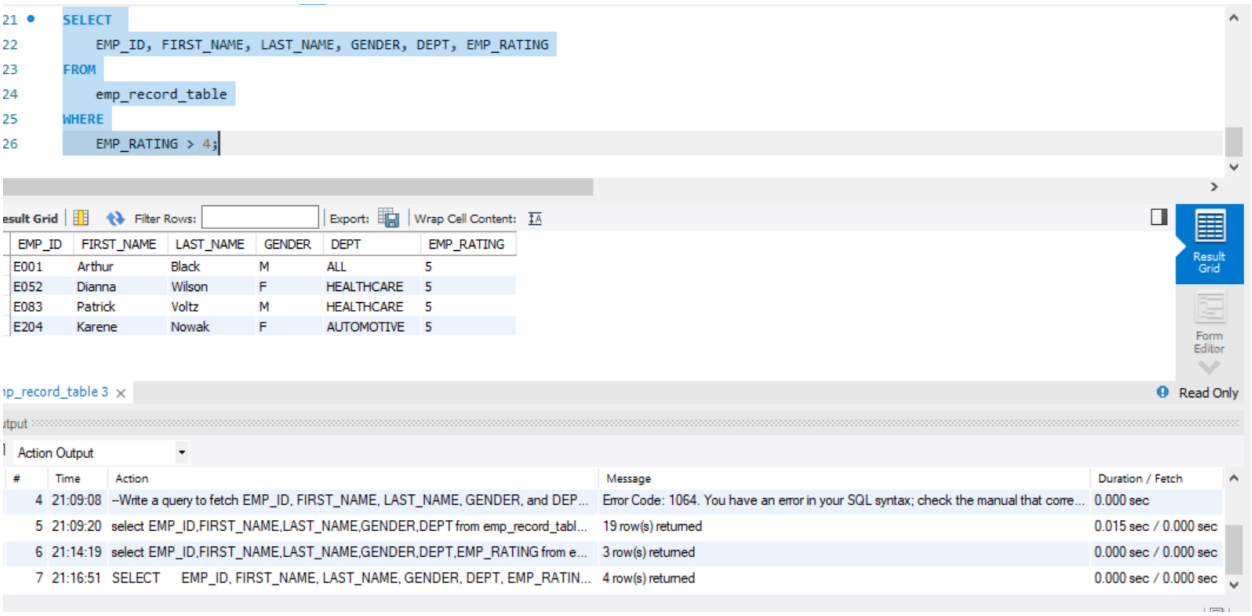
```
12  SELECT
13      EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING
14  FROM
15      emp_record_table
16  WHERE
17      EMP_RATING < 2;
18
```

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

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



greater than four ---



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

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 ×

Read Only

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

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

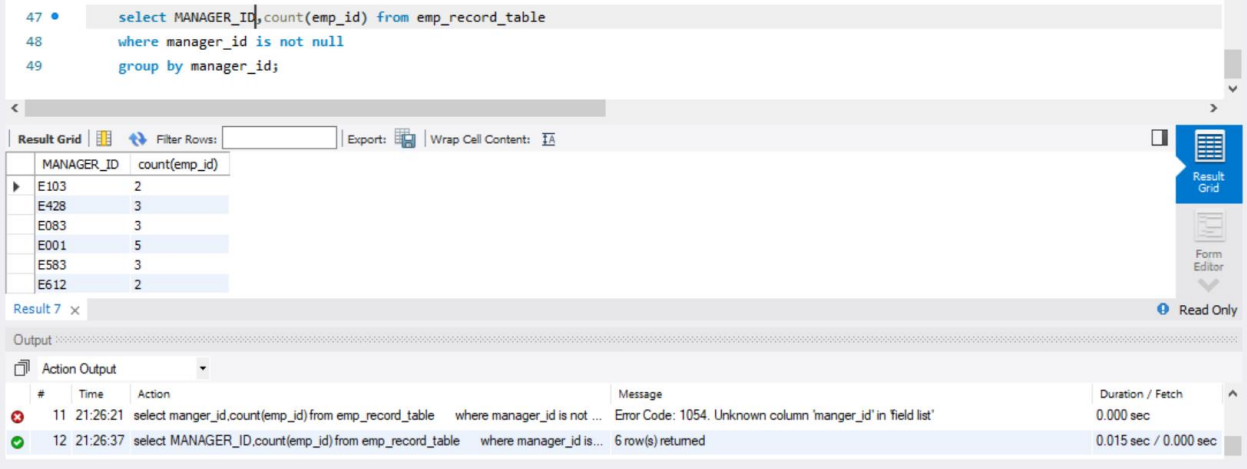
Result 6 ×

Output

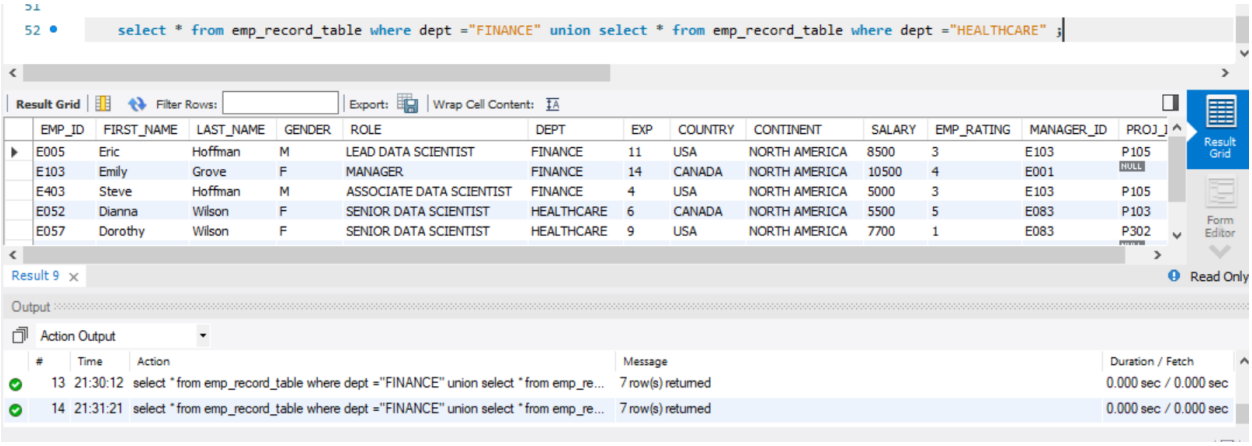
Action Output

#	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 NAME f...	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).



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.



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

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 | Read Only

Output

Action 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 | Filter Rows: | Export: | Wrap Cell Content:

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 | Read O

Output

Action 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 | Filter Rows: | Export: | Wrap Cell Content:

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	NULL	NULL	1
	Voltz	M	MANAGER	HEALTHCARE	15	USA	NORTH AMERICA	9500	5	E001	NULL	2
	Grove	F	MANAGER	FINANCE	14	CANADA	NORTH AMERICA	10500	4	E001	NULL	3
	Allen	M	MANAGER	AUTOMOTIVE	14	GERMANY	EUROPE	11000	4	E001	NULL	3
	Hale	F	MANAGER	RETAIL	14	COLOMBIA	SOUTH AMERICA	10000	2	E001	NULL	3
	Norris	F	MANAGER	RETAIL	13	INDIA	ASIA	8500	4	E001	NULL	6

Result Grid | Form Editor | Read Only

Result 1

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

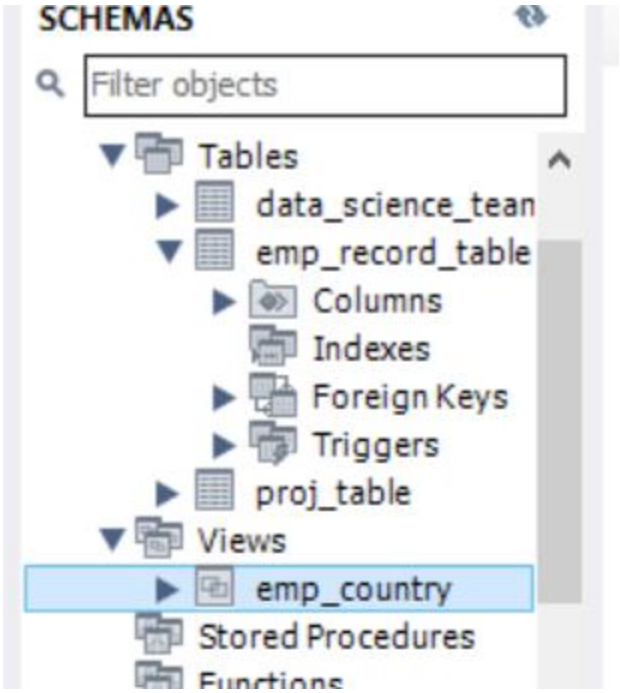
11) Write a query to create a view that displays employees in various countries whose salary is more than six thousand**.** Take data from the employee record table.

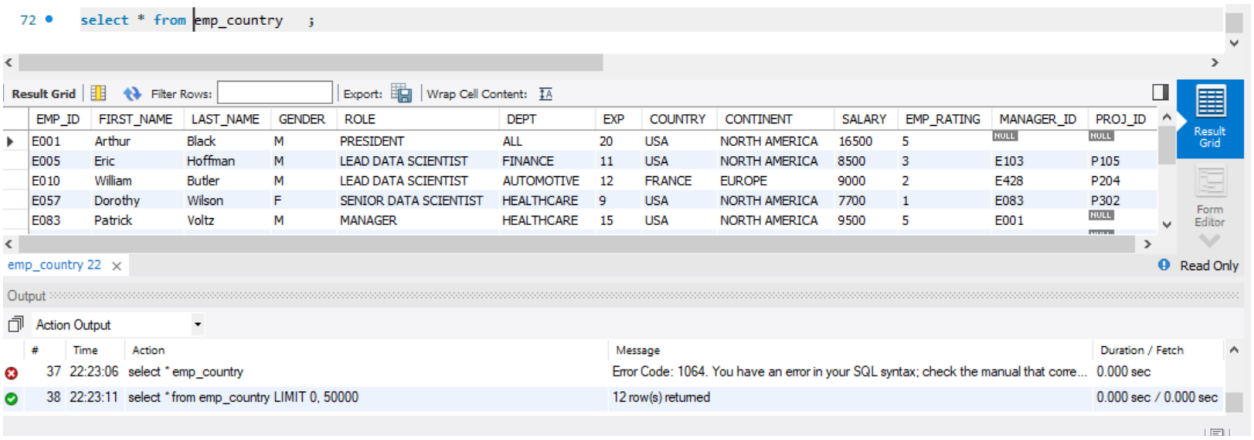
```
71 •  create view emp_COUNTRY as (select * from emp_record_table where SALARY > 6000 );
72
```

Output

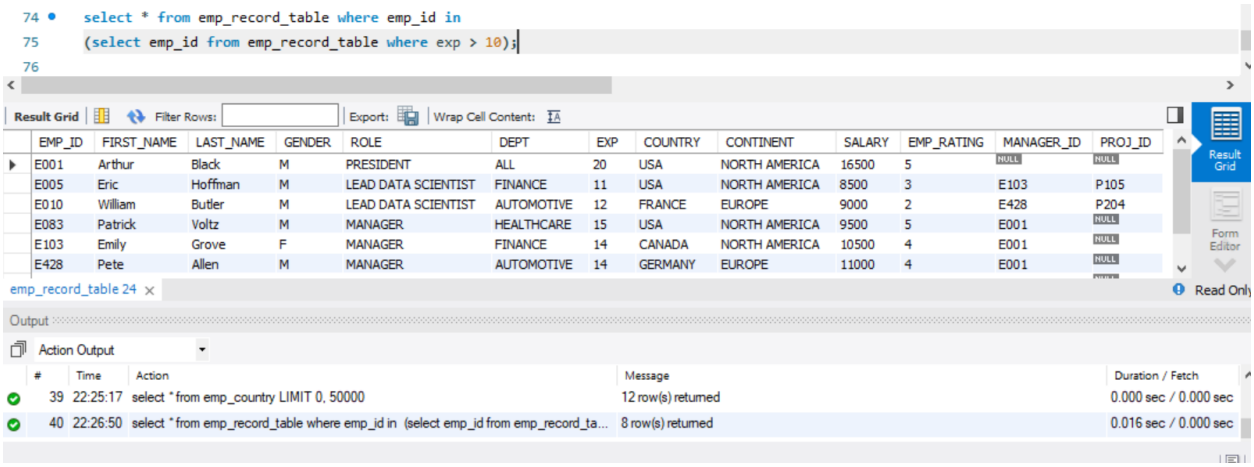
Action Output

#	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

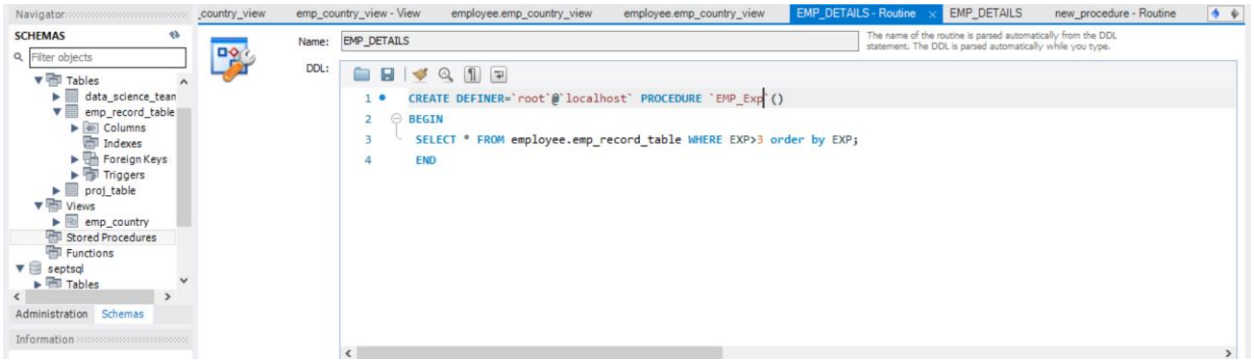


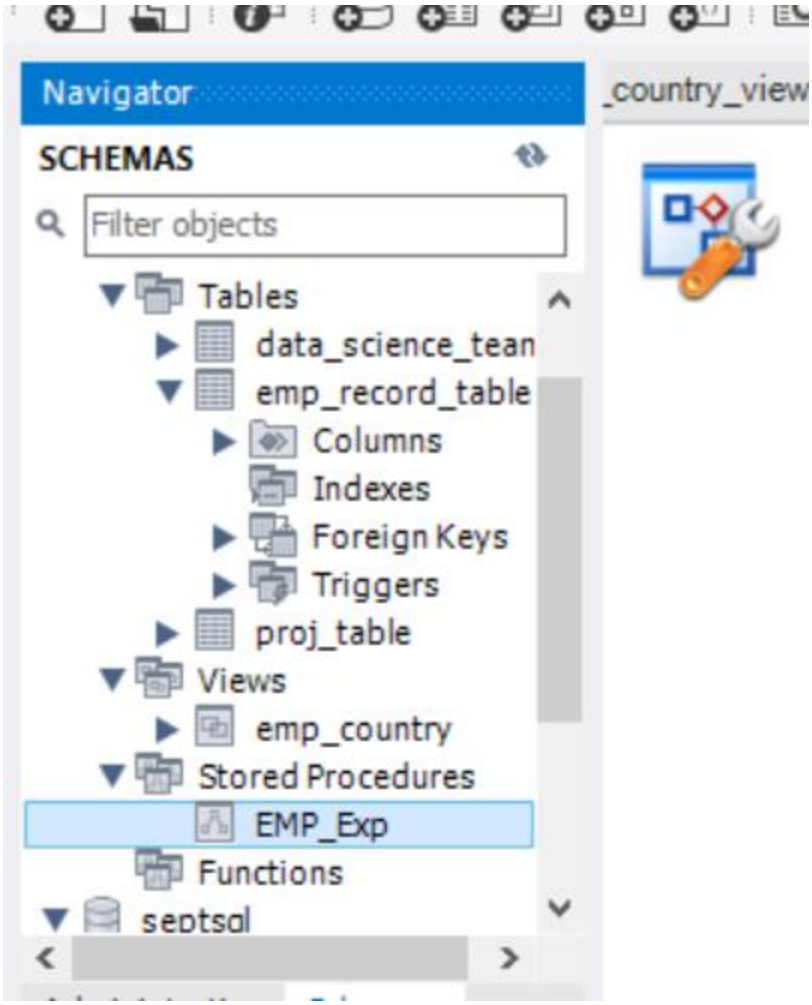


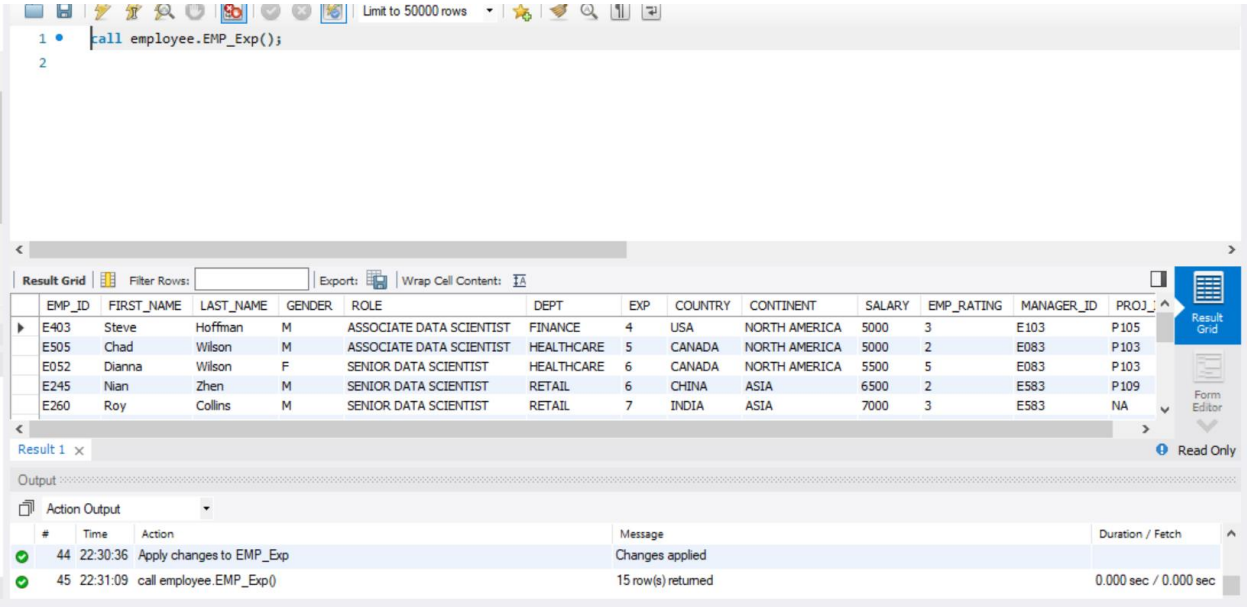
12) Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.



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
SCHEMAS
Filter objects
Tables
data_science_tean
emp_record_table
Columns
Indexes
Foreign Keys
Triggers
proj_table
Views
emp_country
Stored Procedures
EMP_Exp
Functions
seqtsql



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',

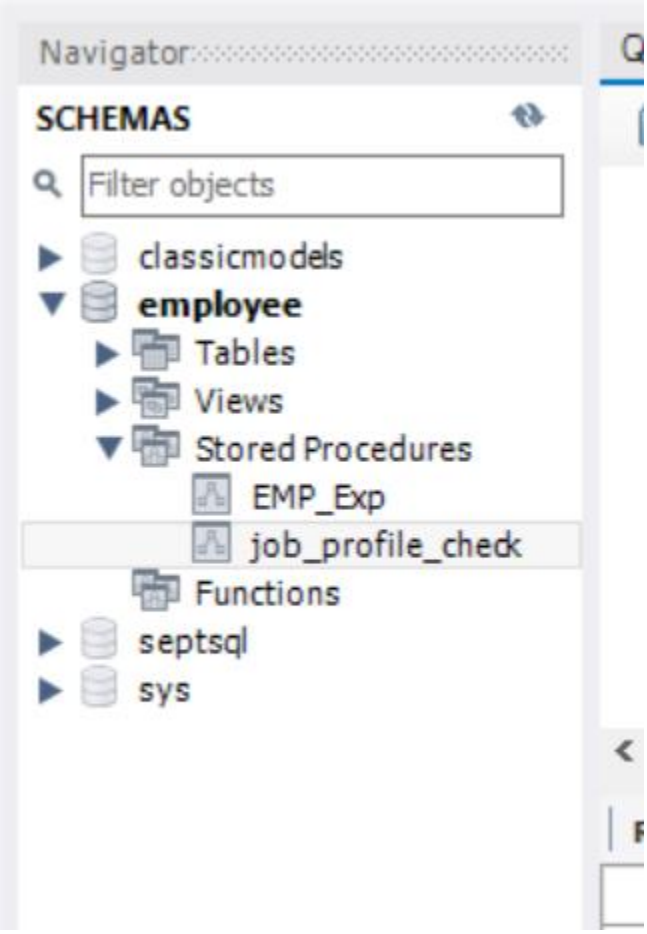
For an employee with the experience of 5 to 10 years assign 'SENIOR DATA SCIENTIST',

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:

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



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

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

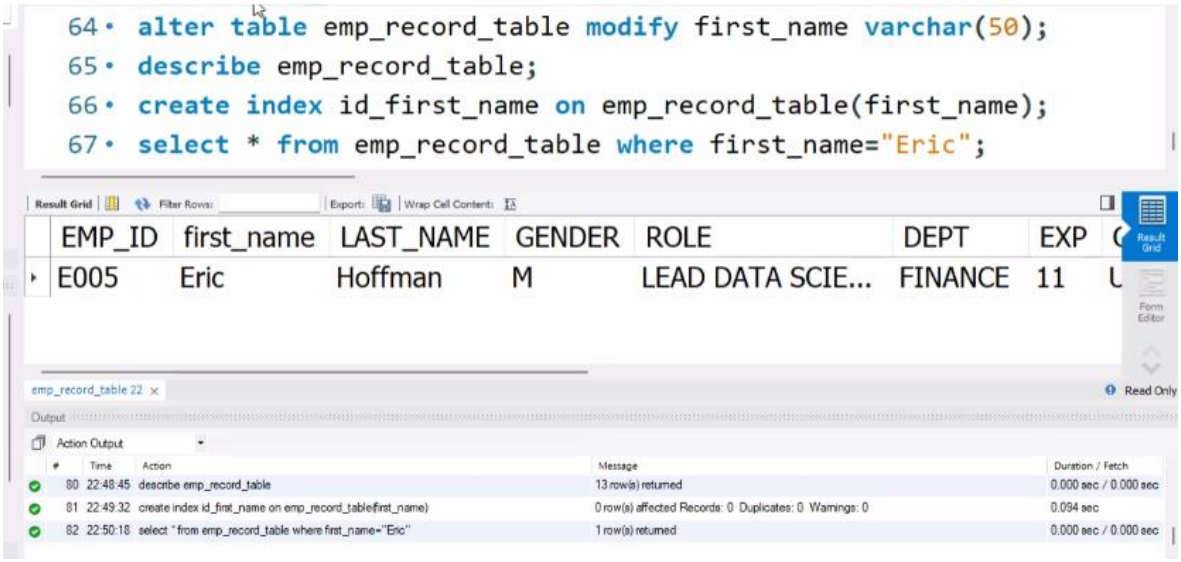
EMP_ID	FIRST_NAME	LAST_NAME	GENDER	ROLE	DEPT	EXP	COUNTRY	CONTINENT	title
E005	Eric	Hoffman	M	LEAD DATA SCIENTIST	FINANCE	11	USA	NORTH AMERICA	LEAD DATA SCIENTIST'
E010	William	Butler	M	LEAD DATA SCIENTIST	AUTOMOTIVE	12	FRANCE	EUROPE	LEAD DATA SCIENTIST'
E052	Dianna	Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	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

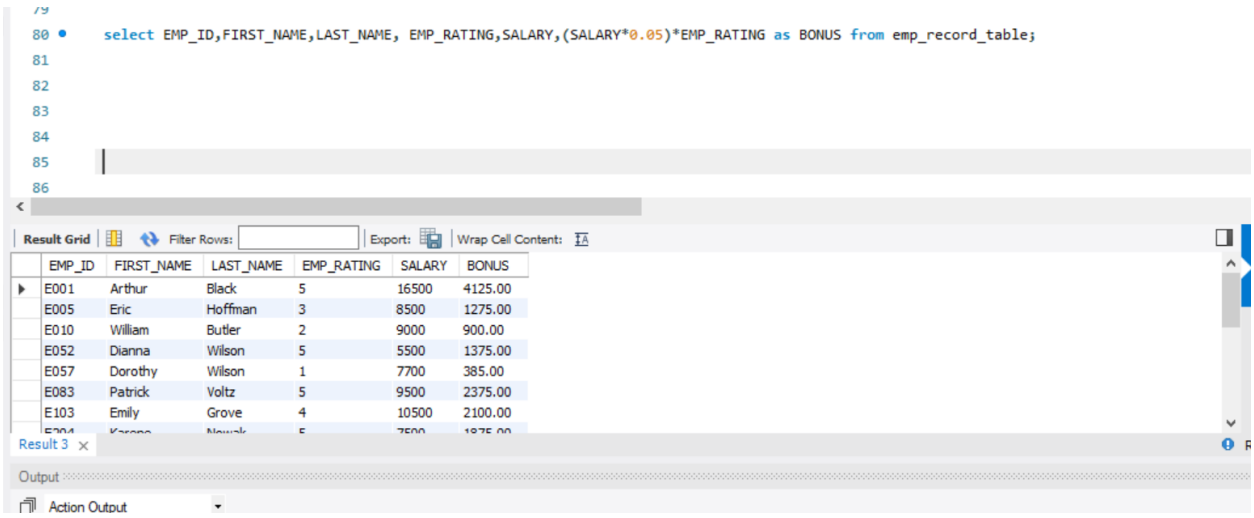
Action Output

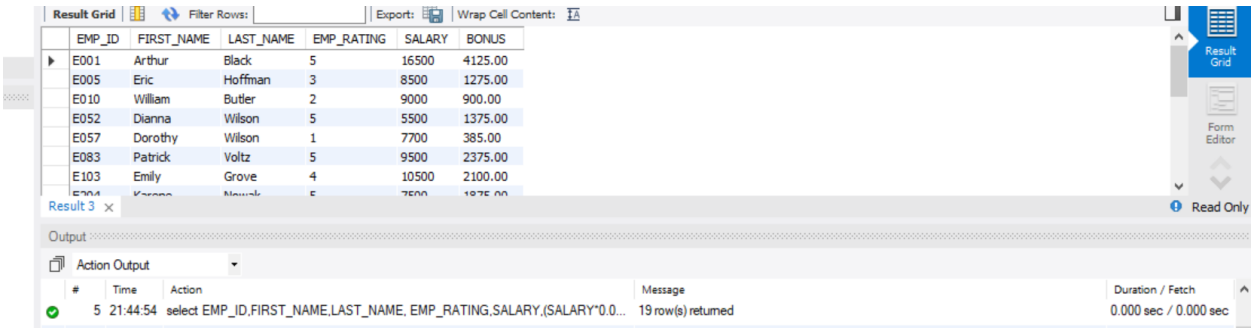
#	Time	Action	Message	Duration / Fetch
2	13:21:42	Apply changes to job_profile_check	Changes applied	
3	13:22:04	call employee.job_profile_check()	13 row(s) returned	0.093 sec / 0.000 sec

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.



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).





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

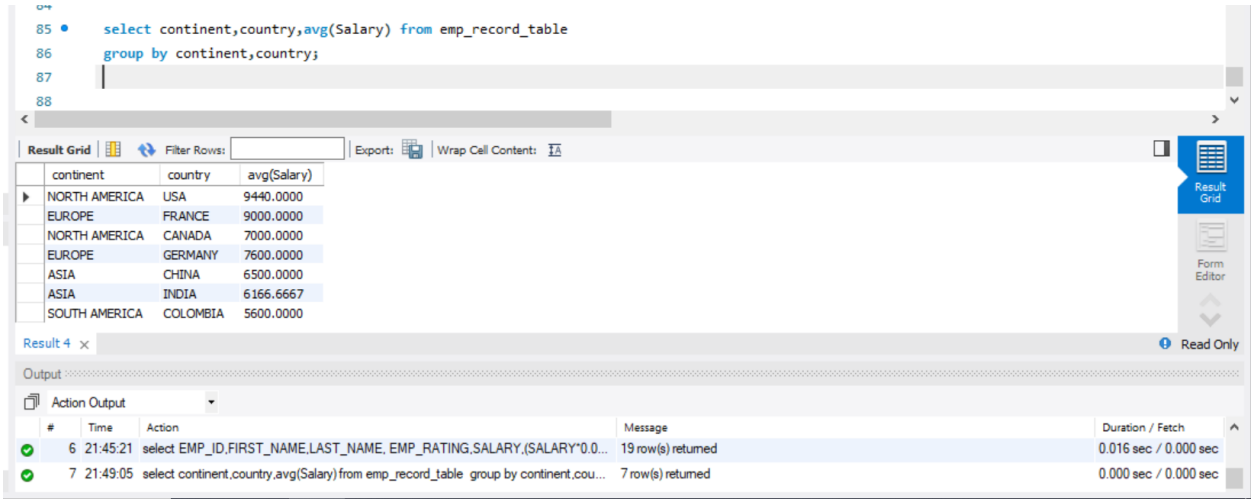
Result 3 | Read Only

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 | Read Only

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