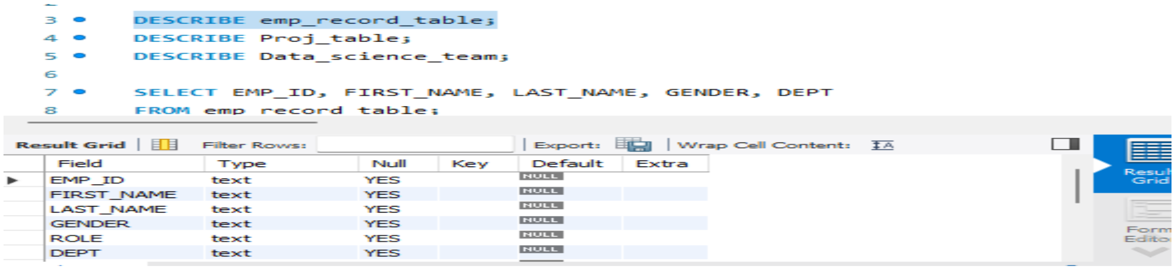
1. **Create a database named employee, then import data_science_team.csv proj_table.csv and emp_record_table.csv into the employee database from the given resources.**

Sol:- CREATE DATABASE IF NOT EXISTS employee;

---

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

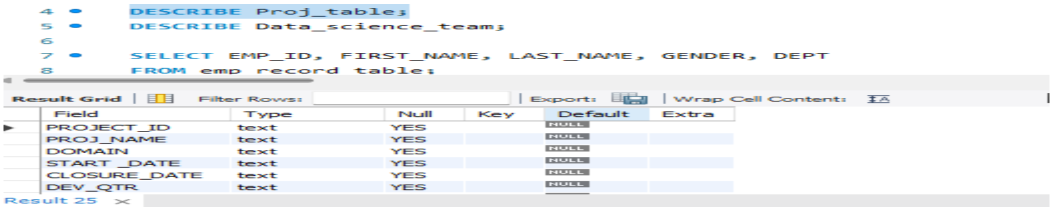
DESCRIBE emp_record_table;



```
DESCRIBE emp_record_table;
DESCRIBE Proj_table;
DESCRIBE Data_science_team;

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
FROM emp record table;
```

Field	Type	Null	Key	Default	Extra
EMP_ID	text	YES		NULL	
FIRST_NAME	text	YES		NULL	
LAST_NAME	text	YES		NULL	
GENDER	text	YES		NULL	
ROLE	text	YES		NULL	
DEPT	text	YES		NULL	

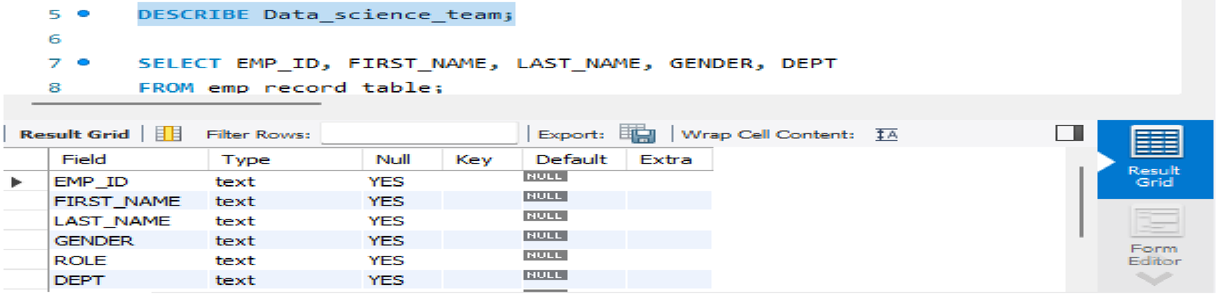
DESCRIBE Proj_table;



```
DESCRIBE Proj_table;
DESCRIBE Data_science_team;

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
FROM emp record table;
```

Field	Type	Null	Key	Default	Extra
PROJECT_ID	text	YES		NULL	
PROJ_NAME	text	YES		NULL	
DOMAIN	text	YES		NULL	
START _DATE	text	YES		NULL	
CLOSURE_DATE	text	YES		NULL	
DEV_QTR	text	YES		NULL	

DESCRIBE Data_science_team;



```
DESCRIBE Data_science_team;

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
FROM emp record table;
```

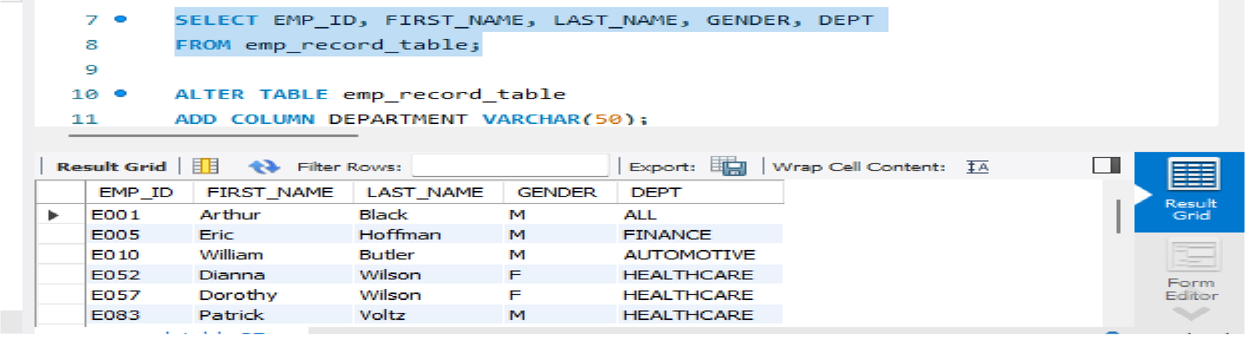
Field	Type	Null	Key	Default	Extra
EMP_ID	text	YES		NULL	
FIRST_NAME	text	YES		NULL	
LAST_NAME	text	YES		NULL	
GENDER	text	YES		NULL	
ROLE	text	YES		NULL	
DEPT	text	YES		NULL	

---

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.**

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT

FROM emp_record_table;



```
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
FROM emp_record_table;

ALTER TABLE emp_record_table
ADD COLUMN DEPARTMENT VARCHAR(50);
```

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

ALTER TABLE emp_record_table

ADD COLUMN DEPARTMENT VARCHAR(50);

---

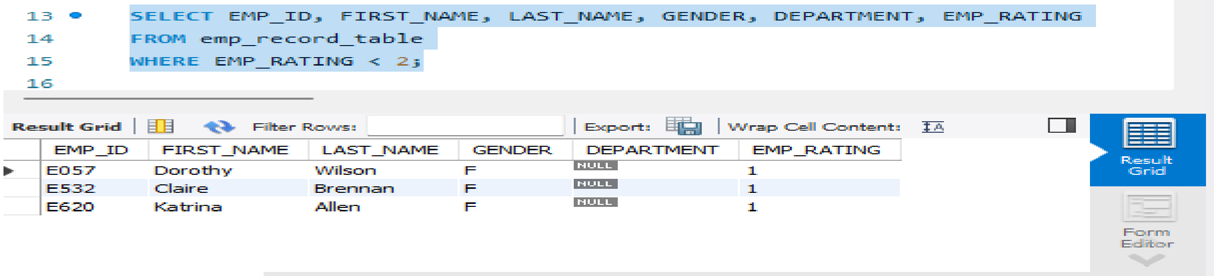
4. Write a query to fetch EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, and EMP_RATING if the EMP_RATING is:

(a)less than two
(b)greater than four
(c)between two and four

(a) SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING < 2;



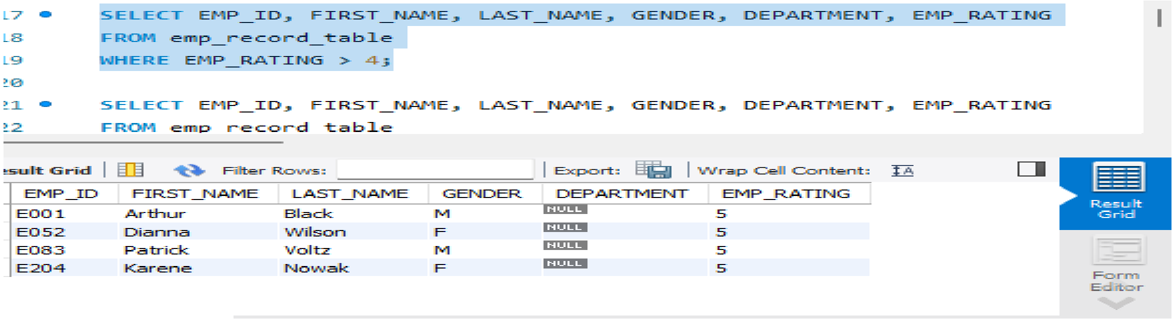
```
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING
FROM emp_record_table
WHERE EMP_RATING < 2;
```

EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPARTMENT	EMP_RATING
E057	Dorothy	Wilson	F	NULL	1
E532	Claire	Brennan	F	NULL	1
E620	Katrina	Allen	F	NULL	1

(b)SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING > 4;



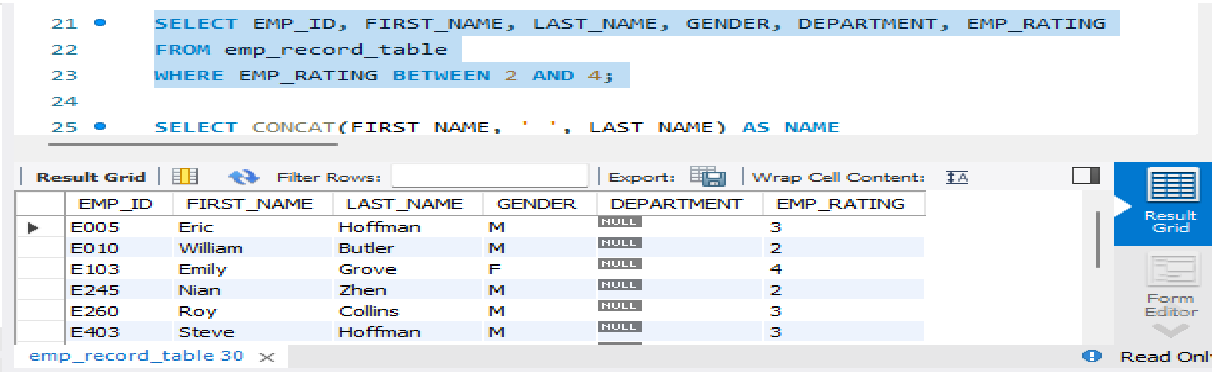
```
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING
FROM emp_record_table
WHERE EMP_RATING > 4;

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING
FROM emp record table
```

EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPARTMENT	EMP_RATING
E001	Arthur	Black	M	NULL	5
E052	Dianna	Wilson	F	NULL	5
E083	Patrick	Voltz	M	NULL	5
E204	Karene	Nowak	F	NULL	5

(c) SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING BETWEEN 2 AND 4;



```
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATING
FROM emp_record_table
WHERE EMP_RATING BETWEEN 2 AND 4;

SELECT CONCAT(FIRST NAME, ' ', LAST NAME) AS NAME
```

EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPARTMENT	EMP_RATING
E005	Eric	Hoffman	M	NULL	3
E010	William	Butler	M	NULL	2
E103	Emily	Grove	F	NULL	4
E245	Nian	Zhen	M	NULL	2
E260	Roy	Collins	M	NULL	3
E403	Steve	Hoffman	M	NULL	3

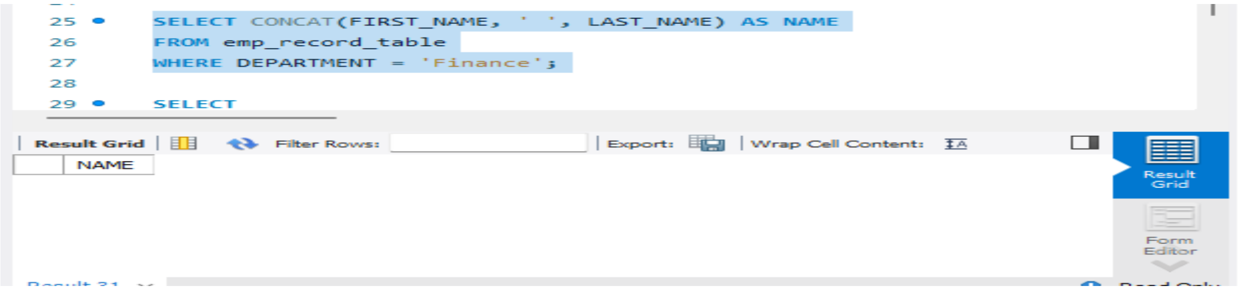
---

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.

SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS NAME

FROM emp_record_table

WHERE DEPARTMENT = 'Finance';



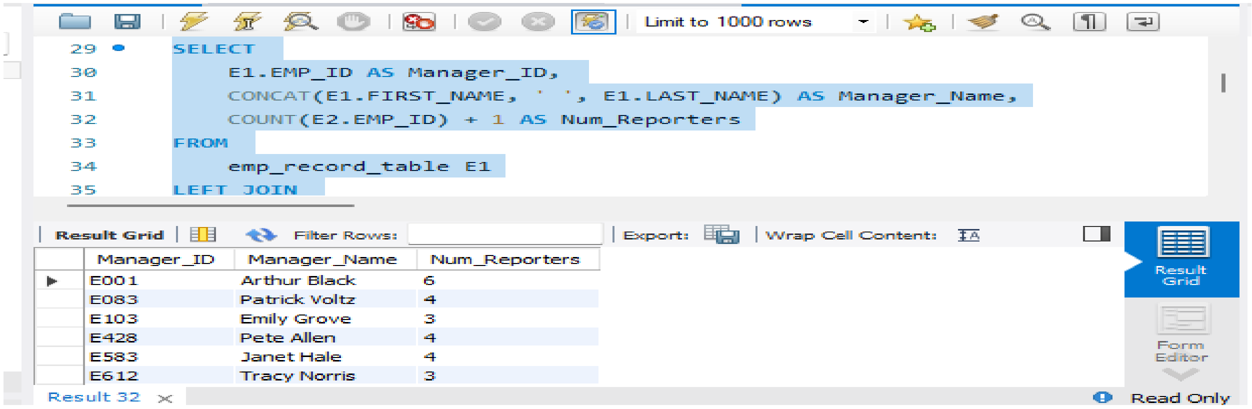
```
SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS NAME
FROM emp_record_table
WHERE DEPARTMENT = 'Finance';

SELECT
```

NAME

---

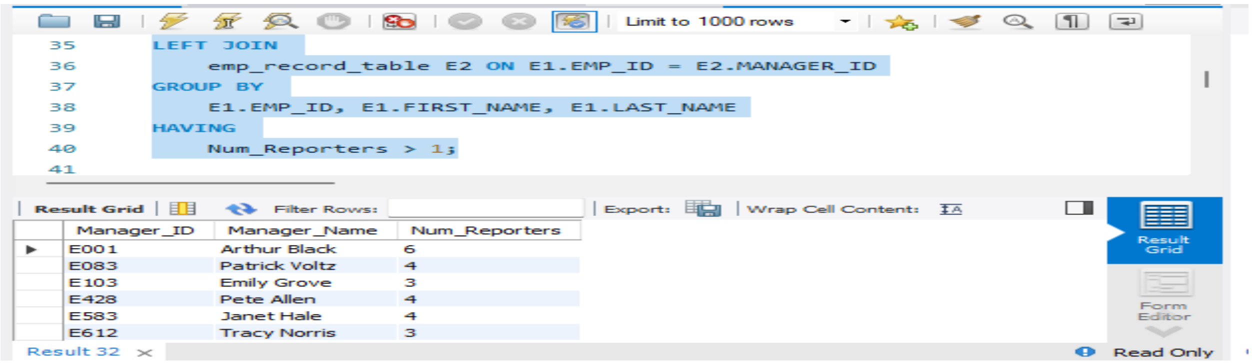
6. Write a query to list only those employees who have someone reporting to them. Also, show the number of reporters (including the President).

```
   SELECT

E1.EMP_ID AS Manager_ID,

CONCAT(E1.FIRST_NAME, ' ', E1.LAST_NAME) AS Manager_Name,

COUNT(E2.EMP_ID) + 1 AS Num_Reporters

FROM

emp_record_table E1

LEFT JOIN

emp_record_table E2 ON E1.EMP_ID = E2.MANAGER_ID

GROUP BY

E1.EMP_ID, E1.FIRST_NAME, E1.LAST_NAME

HAVING

Num_Reporters > 1;
```



```
SELECT
    E1.EMP_ID AS Manager_ID,
    CONCAT(E1.FIRST_NAME, ' ', E1.LAST_NAME) AS Manager_Name,
    COUNT(E2.EMP_ID) + 1 AS Num_Reporters
FROM
    emp_record_table E1
LEFT JOIN
```

Manager_ID	Manager_Name	Num_Reporters
E001	Arthur Black	6
E083	Patrick Voltz	4
E103	Emily Grove	3
E428	Pete Allen	4
E583	Janet Hale	4
E612	Tracy Norris	3



```
LEFT JOIN
    emp_record_table E2 ON E1.EMP_ID = E2.MANAGER_ID
GROUP BY
    E1.EMP_ID, E1.FIRST_NAME, E1.LAST_NAME
HAVING
    Num_Reporters > 1;
```

Manager_ID	Manager_Name	Num_Reporters
E001	Arthur Black	6
E083	Patrick Voltz	4
E103	Emily Grove	3
E428	Pete Allen	4
E583	Janet Hale	4
E612	Tracy Norris	3

---

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.

SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT

FROM emp_record_table

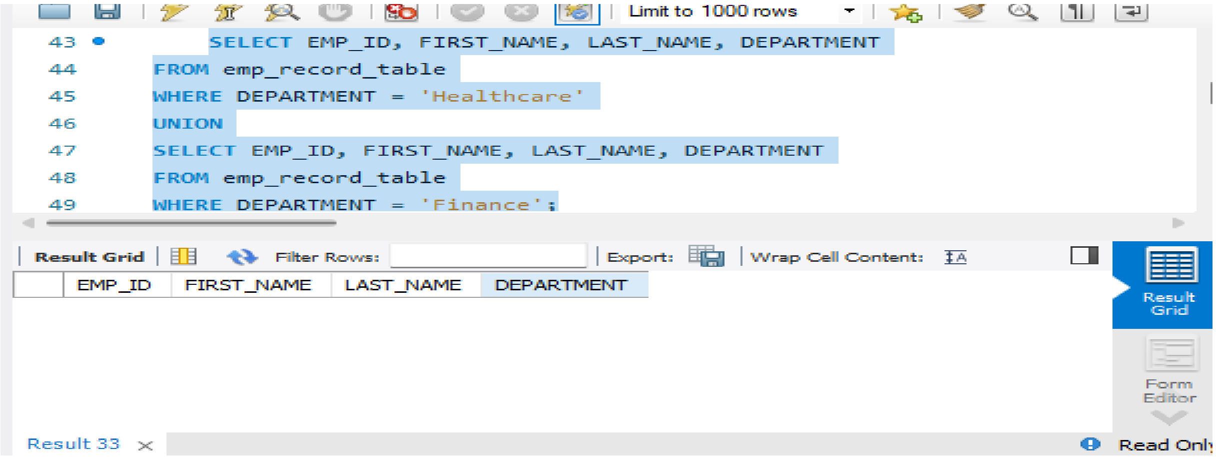
WHERE DEPARTMENT = 'Healthcare'

UNION

SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT

FROM emp_record_table

WHERE DEPARTMENT = 'Finance';



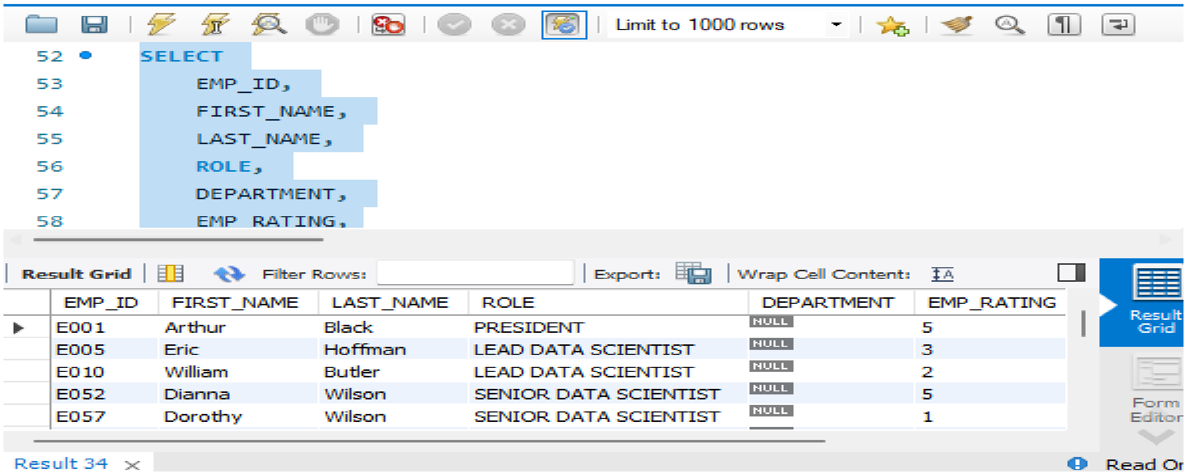
```
        SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT
FROM emp_record_table
WHERE DEPARTMENT = 'Healthcare'
UNION
SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT
FROM emp_record_table
WHERE DEPARTMENT = 'Finance';
```

EMP_ID	FIRST_NAME	LAST_NAME	DEPARTMENT

---

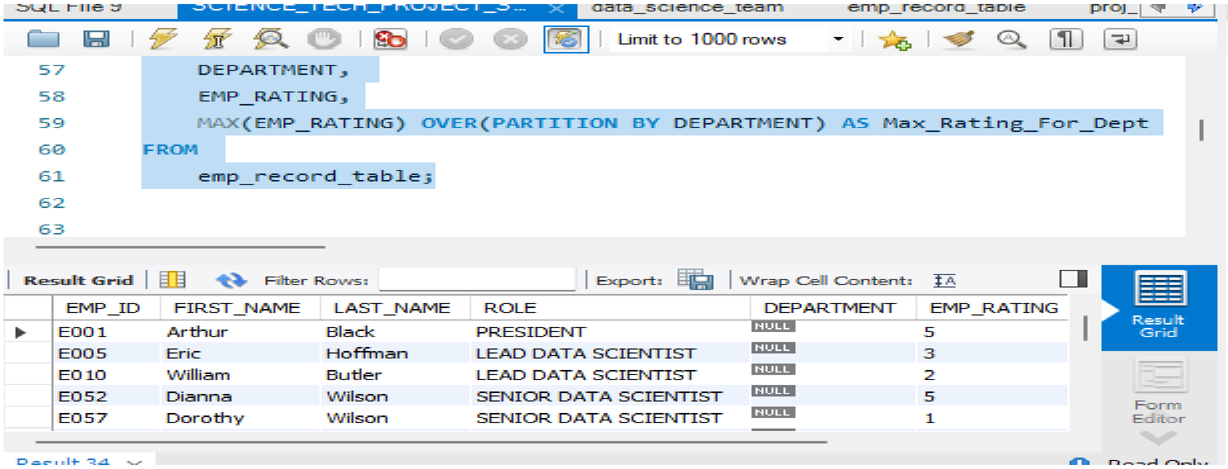
8. Write a query to list down employee details such as EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPARTMENT, and EMP_RATING grouped by dept. Also include the respective employee rating along with the max emp rating for the department.

```
    SELECT
  EMP_ID,
  FIRST_NAME,
 LAST_NAME,
 ROLE,
DEPARTMENT,
EMP_RATING,
MAX(EMP_RATING) OVER(PARTITION BY DEPARTMENT) AS Max_Rating_For_Dept
FROM
  emp_record_table;
```



```
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    ROLE,
    DEPARTMENT,
    EMP_RATING,
```

EMP_ID	FIRST_NAME	LAST_NAME	ROLE	DEPARTMENT	EMP_RATING
E001	Arthur	Black	PRESIDENT	NULL	5
E005	Eric	Hoffman	LEAD DATA SCIENTIST	NULL	3
E010	William	Butler	LEAD DATA SCIENTIST	NULL	2
E052	Dianna	Wilson	SENIOR DATA SCIENTIST	NULL	5
E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	NULL	1



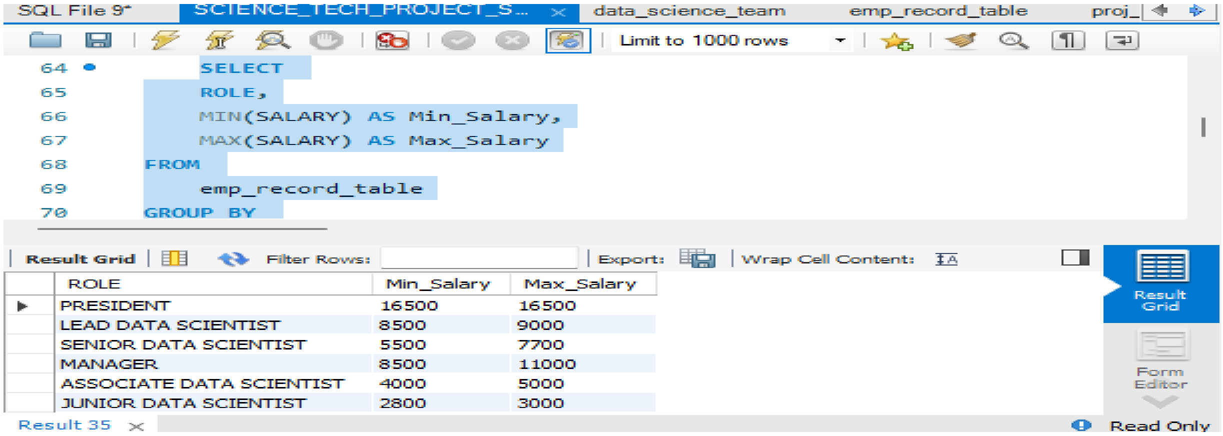
```
        DEPARTMENT,
        EMP_RATING,
        MAX(EMP_RATING) OVER(PARTITION BY DEPARTMENT) AS Max_Rating_For_Dept
FROM
        emp_record_table;
```

EMP_ID	FIRST_NAME	LAST_NAME	ROLE	DEPARTMENT	EMP_RATING
E001	Arthur	Black	PRESIDENT	NULL	5
E005	Eric	Hoffman	LEAD DATA SCIENTIST	NULL	3
E010	William	Butler	LEAD DATA SCIENTIST	NULL	2
E052	Dianna	Wilson	SENIOR DATA SCIENTIST	NULL	5
E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	NULL	1

----

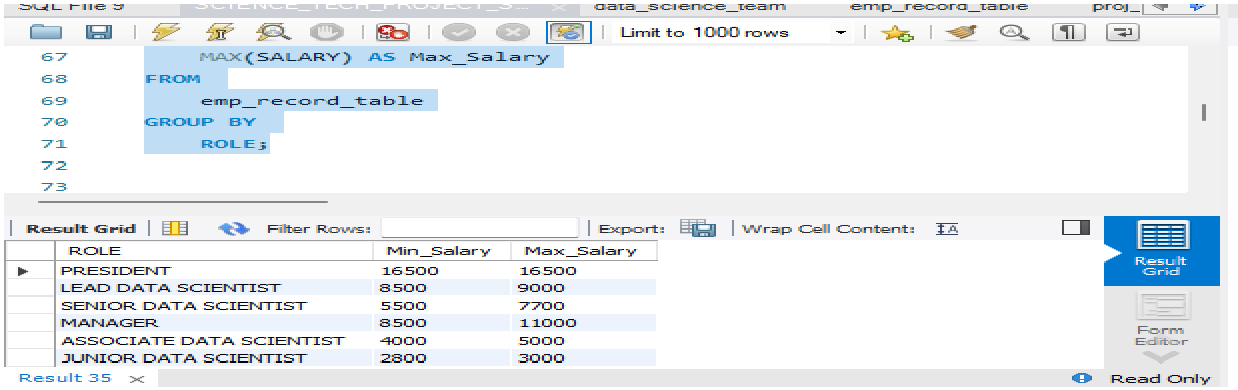
9. **Write a query to calculate the minimum and the maximum salary of the employees in each role. Take data from the employee record table.**

```
        SELECT
    ROLE,
    MIN(SALARY) AS Min_Salary,
    MAX(SALARY) AS Max_Salary
FROM
    emp_record_table
GROUP BY
    ROLE;
```



```
        SELECT
        ROLE,
        MIN(SALARY) AS Min_Salary,
        MAX(SALARY) AS Max_Salary
FROM
        emp_record_table
GROUP BY
```

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



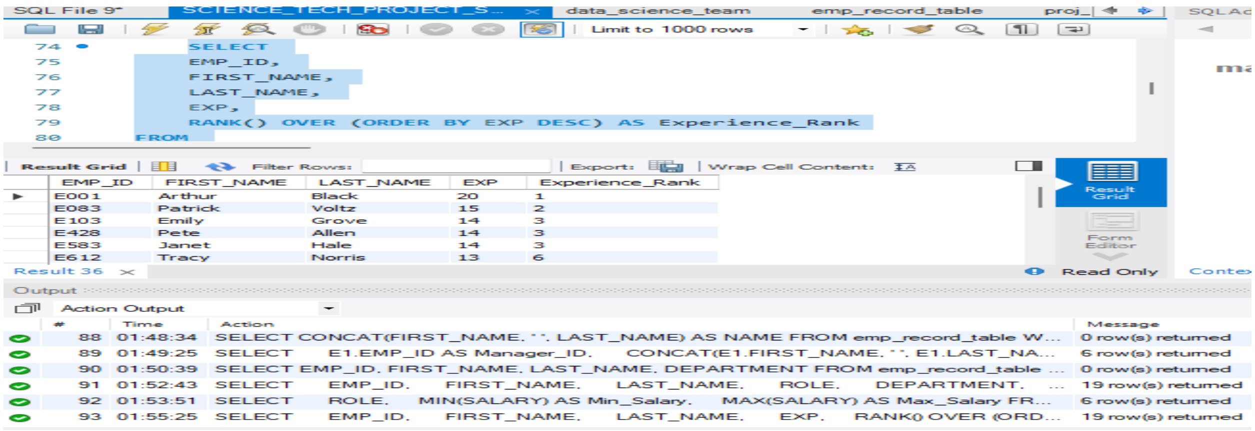
```
    MAX(SALARY) AS Max_Salary
FROM
    emp_record_table
GROUP BY
    ROLE;
```

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

---

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

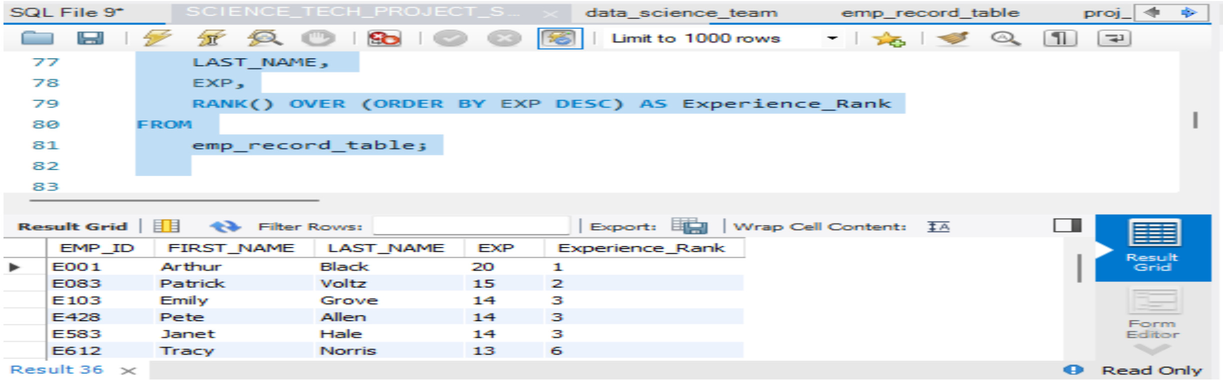
```
SELECT
  EMP_ID,
  FIRST_NAME,
  LAST_NAME,
  EXP,
  RANK() OVER (ORDER BY EXP DESC) AS Experience_Rank
FROM
  emp_record_table;
```



```
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    EXP,
    RANK() OVER (ORDER BY EXP DESC) AS Experience_Rank
FROM
```

EMP_ID	FIRST_NAME	LAST_NAME	EXP	Experience_Rank
E001	Arthur	Black	20	1
E083	Patrick	Voltz	15	2
E103	Emily	Grove	14	3
E428	Pete	Allen	14	3
E583	Janet	Hale	14	3
E612	Tracy	Norris	13	6

```
   #   Time      Action                                                                          Message
  88   01:48:34  SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS NAME FROM emp_record_table W...    0 row(s) returned
  89   01:49:25  SELECT    E1.EMP_ID AS Manager_ID,    CONCAT(E1.FIRST_NAME, ' ', E1.LAST_NA...  6 row(s) returned
  90   01:50:39  SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT FROM emp_record_table ...      0 row(s) returned
  91   01:52:43  SELECT    EMP_ID,    FIRST_NAME,    LAST_NAME,    ROLE,    DEPARTMENT,    ...   19 row(s) returned
  92   01:53:51  SELECT    ROLE,    MIN(SALARY) AS Min_Salary,    MAX(SALARY) AS Max_Salary FR...  6 row(s) returned
  93   01:55:25  SELECT    EMP_ID,    FIRST_NAME,    LAST_NAME,    EXP,    RANK() OVER (ORD...  19 row(s) returned
```

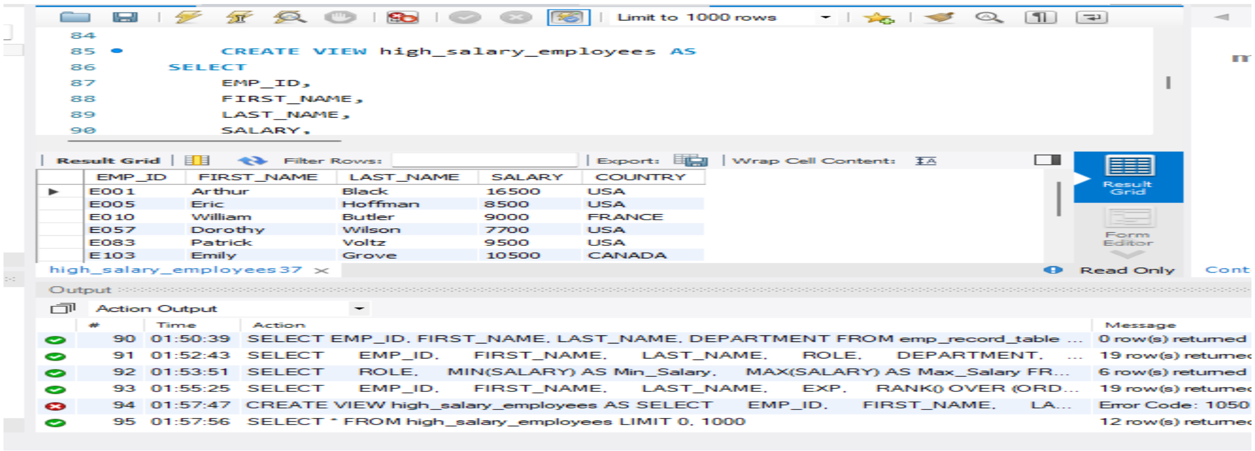


```
        LAST_NAME,
        EXP,
        RANK() OVER (ORDER BY EXP DESC) AS Experience_Rank
    FROM
        emp_record_table;
```

EMP_ID	FIRST_NAME	LAST_NAME	EXP	Experience_Rank
E001	Arthur	Black	20	1
E083	Patrick	Voltz	15	2
E103	Emily	Grove	14	3
E428	Pete	Allen	14	3
E583	Janet	Hale	14	3
E612	Tracy	Norris	13	6

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.

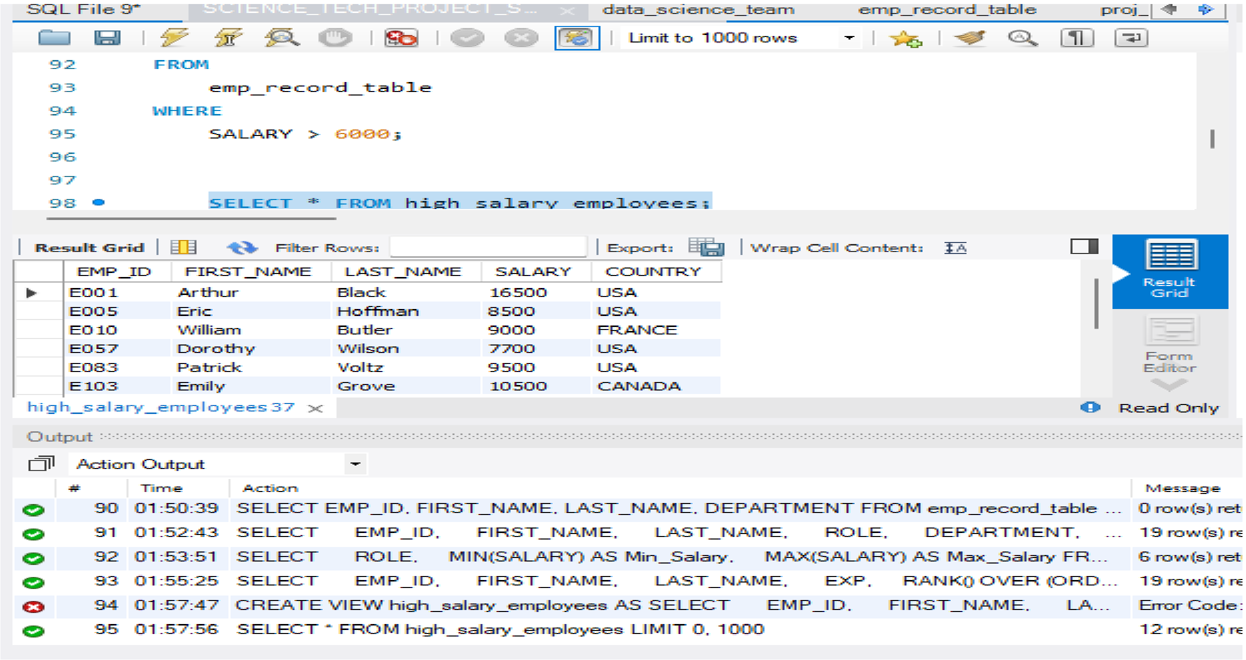
```
CREATE VIEW high_salary_employees AS
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    SALARY,
    COUNTRY
FROM
    emp_record_table
WHERE
    SALARY > 6000;
SELECT * FROM high_salary_employees;
```



```
        CREATE VIEW high_salary_employees AS
    SELECT
        EMP_ID,
        FIRST_NAME,
        LAST_NAME,
        SALARY,
```

EMP_ID	FIRST_NAME	LAST_NAME	SALARY	COUNTRY
E001	Arthur	Black	16500	USA
E005	Eric	Hoffman	8500	USA
E010	William	Butler	9000	FRANCE
E057	Dorothy	Wilson	7700	USA
E083	Patrick	Voltz	9500	USA
E103	Emily	Grove	10500	CANADA

```
#   Time      Action                                                                              Message
90  01:50:39  SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT FROM emp_record_table ...          0 row(s) returned
91  01:52:43  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   ROLE,   DEPARTMENT,   ...             19 row(s) returned
92  01:53:51  SELECT   ROLE,   MIN(SALARY) AS Min_Salary,   MAX(SALARY) AS Max_Salary FR...       6 row(s) returned
93  01:55:25  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP,   RANK() OVER (ORD...            19 row(s) returned
94  01:57:47  CREATE VIEW high_salary_employees AS SELECT   EMP_ID,   FIRST_NAME,   LA...         Error Code: 1050
95  01:57:56  SELECT * FROM high_salary_employees LIMIT 0, 1000                                   12 row(s) returned
```



```
    FROM
        emp_record_table
    WHERE
        SALARY > 6000;


        SELECT * FROM high_salary_employees;
```

EMP_ID	FIRST_NAME	LAST_NAME	SALARY	COUNTRY
E001	Arthur	Black	16500	USA
E005	Eric	Hoffman	8500	USA
E010	William	Butler	9000	FRANCE
E057	Dorothy	Wilson	7700	USA
E083	Patrick	Voltz	9500	USA
E103	Emily	Grove	10500	CANADA

```
#   Time      Action                                                                              Message
90  01:50:39  SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT FROM emp_record_table ...          0 row(s) ret
91  01:52:43  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   ROLE,   DEPARTMENT,   ...             19 row(s) re
92  01:53:51  SELECT   ROLE,   MIN(SALARY) AS Min_Salary,   MAX(SALARY) AS Max_Salary FR...       6 row(s) ret
93  01:55:25  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP,   RANK() OVER (ORD...            19 row(s) re
94  01:57:47  CREATE VIEW high_salary_employees AS SELECT   EMP_ID,   FIRST_NAME,   LA...         Error Code:
95  01:57:56  SELECT * FROM high_salary_employees LIMIT 0, 1000                                   12 row(s) re
```

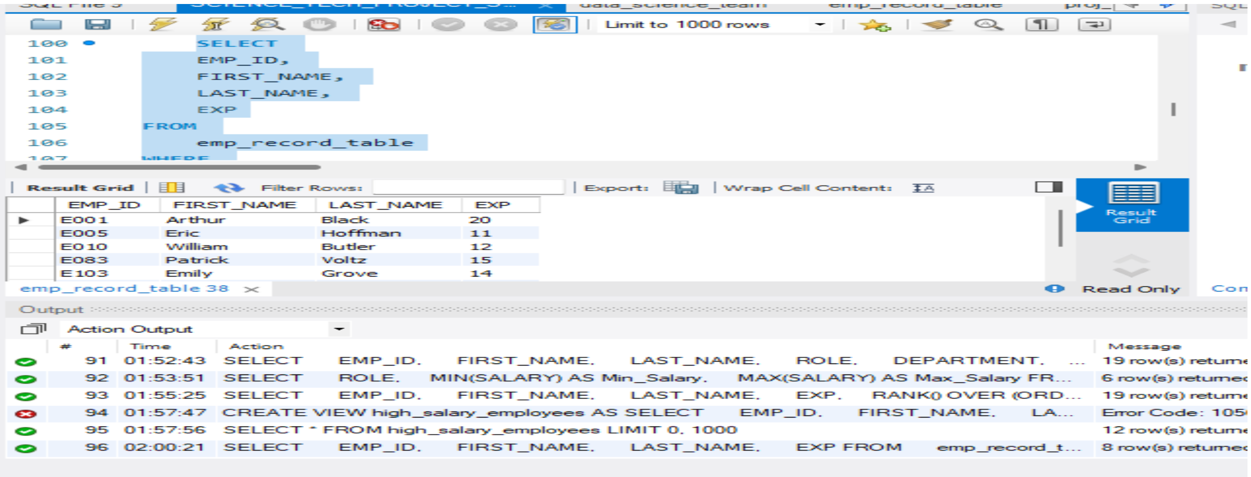
12. Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.

```
 SELECT
  EMP_ID,
  FIRST_NAME,
  LAST_NAME,
  EXP
FROM
```

emp_record_table

WHERE

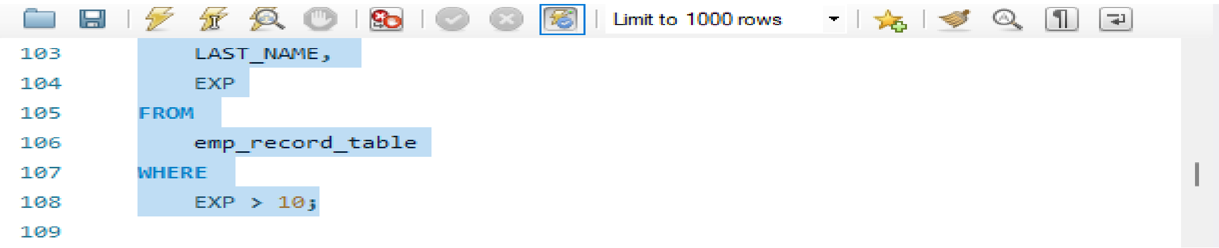
EXP > 10;



```
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    EXP
FROM
    emp_record_table
WHERE
```

EMP_ID	FIRST_NAME	LAST_NAME	EXP
E001	Arthur	Black	20
E005	Eric	Hoffman	11
E010	William	Butler	12
E083	Patrick	Voltz	15
E103	Emily	Grove	14

```
#   Time      Action                                                                                  Message
91  01:52:43  SELECT  EMP_ID,  FIRST_NAME,  LAST_NAME,  ROLE,  DEPARTMENT,  ...                      19 row(s) returne
92  01:53:51  SELECT  ROLE,  MIN(SALARY) AS Min_Salary,  MAX(SALARY) AS Max_Salary FR...             6 row(s) returned
93  01:55:25  SELECT  EMP_ID,  FIRST_NAME,  LAST_NAME,  EXP,  RANK() OVER (ORD...                    19 row(s) returne
94  01:57:47  CREATE VIEW high_salary_employees AS SELECT  EMP_ID,  FIRST_NAME,  LA...               Error Code: 105
95  01:57:56  SELECT * FROM high_salary_employees LIMIT 0, 1000                                       12 row(s) returne
96  02:00:21  SELECT  EMP_ID,  FIRST_NAME,  LAST_NAME,  EXP FROM  emp_record_t...                    8 row(s) returned
```



```
        LAST_NAME,
        EXP
FROM
        emp_record_table
WHERE
        EXP > 10;
```

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.

DELIMITER //

CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears()

BEGIN

SELECT

EMP_ID,

FIRST_NAME,

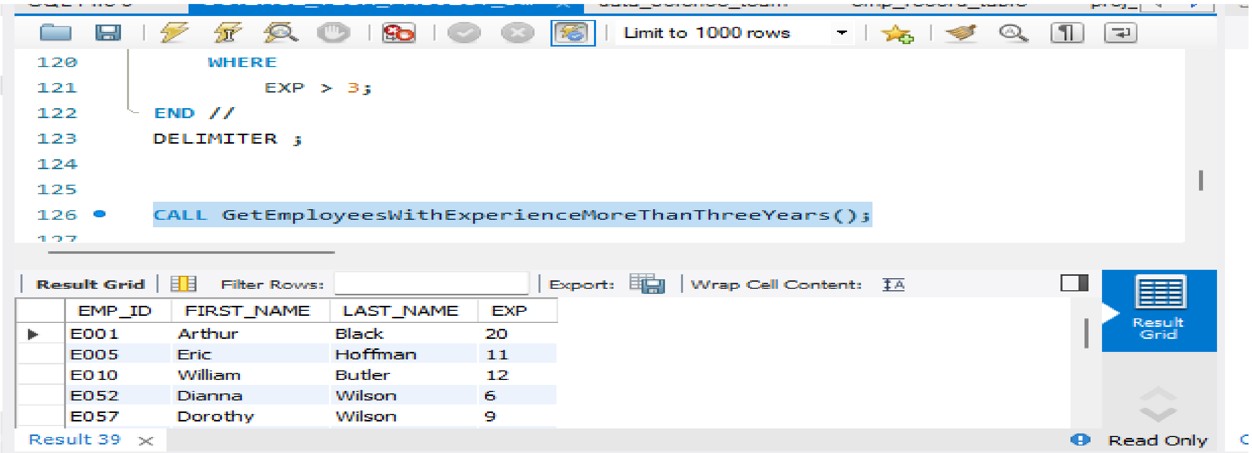
LAST_NAME,

EXP

FROM

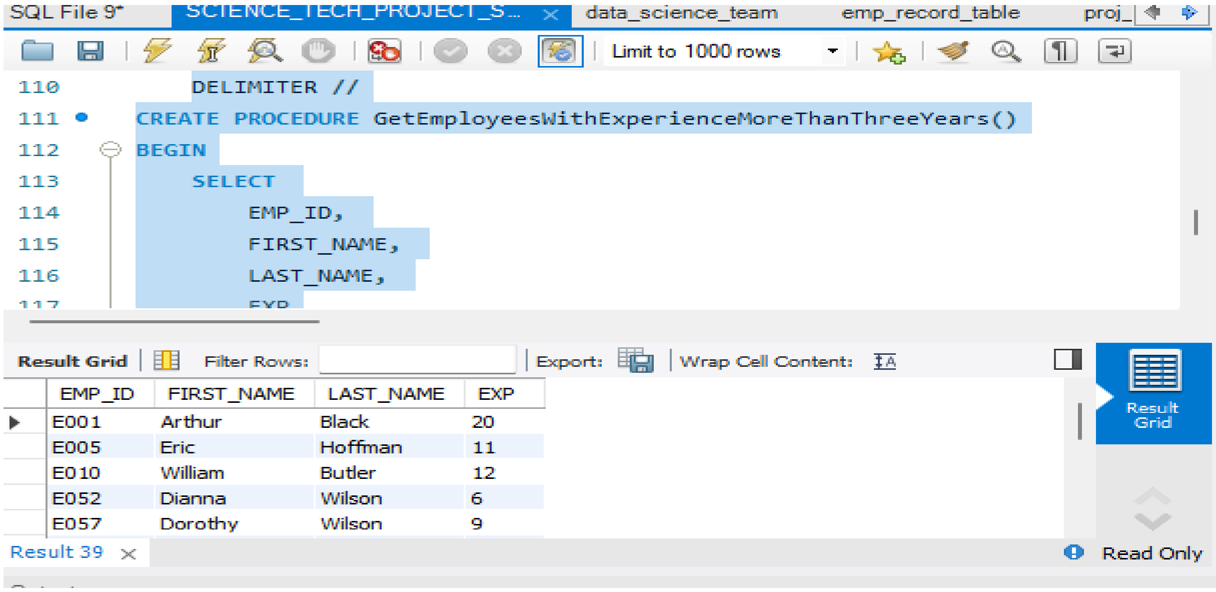
emp_record_table

```
    WHERE
        EXP > 3;
END //
DELIMITER ;
CALL GetEmployeesWithExperienceMoreThanThreeYears();
```



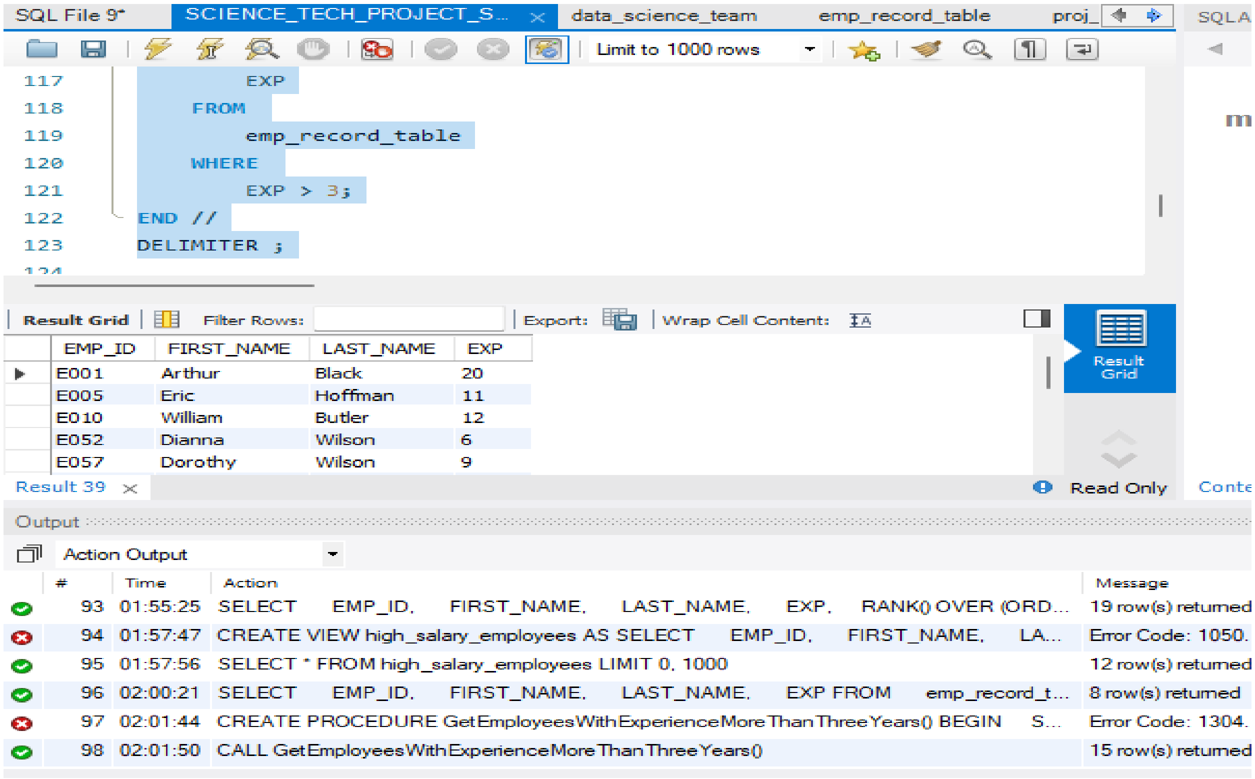
```
        WHERE
            EXP > 3;
    END //
    DELIMITER ;


    CALL GetEmployeesWithExperienceMoreThanThreeYears();
```

EMP_ID	FIRST_NAME	LAST_NAME	EXP
E001	Arthur	Black	20
E005	Eric	Hoffman	11
E010	William	Butler	12
E052	Dianna	Wilson	6
E057	Dorothy	Wilson	9



```
        DELIMITER //
    CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears()
    BEGIN
        SELECT
            EMP_ID,
            FIRST_NAME,
            LAST_NAME,
            EXP
```

EMP_ID	FIRST_NAME	LAST_NAME	EXP
E001	Arthur	Black	20
E005	Eric	Hoffman	11
E010	William	Butler	12
E052	Dianna	Wilson	6
E057	Dorothy	Wilson	9



```
            EXP
        FROM
            emp_record_table
        WHERE
            EXP > 3;
END //
DELIMITER ;
```

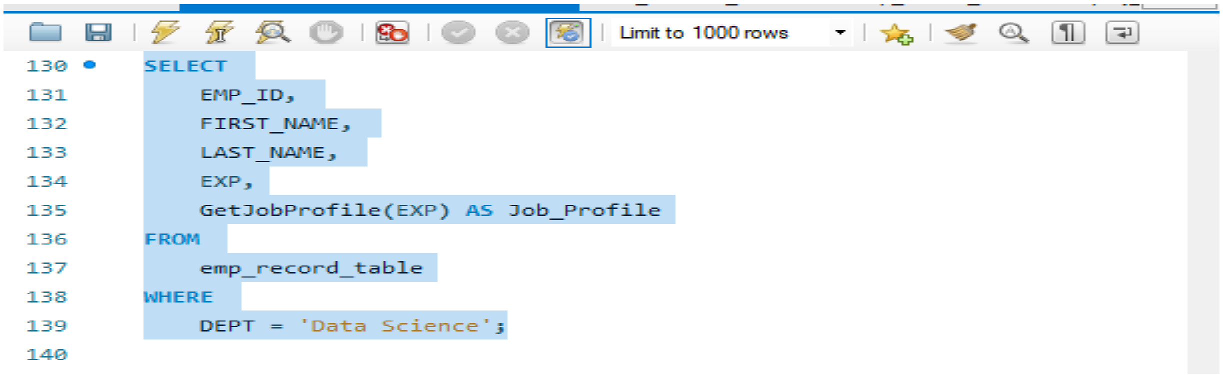
EMP_ID	FIRST_NAME	LAST_NAME	EXP
E001	Arthur	Black	20
E005	Eric	Hoffman	11
E010	William	Butler	12
E052	Dianna	Wilson	6
E057	Dorothy	Wilson	9

```
 #   Time      Action                                                                                 Message
93   01:55:25  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP,   RANK() OVER (ORD...                19 row(s) returned
94   01:57:47  CREATE VIEW high_salary_employees AS SELECT   EMP_ID,   FIRST_NAME,   LA...           Error Code: 1050.
95   01:57:56  SELECT * FROM high_salary_employees LIMIT 0, 1000                                    12 row(s) returned
96   02:00:21  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP FROM   emp_record_t...              8 row(s) returned
97   02:01:44  CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears() BEGIN   S...        Error Code: 1304.
98   02:01:50  CALL GetEmployeesWithExperienceMoreThanThreeYears()                                  15 row(s) returned
```

---

14. Write a query using stored functions 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.

```
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    EXP,
    GetJobProfile(EXP) AS Job_Profile
FROM
    emp_record_table
WHERE
    DEPT = 'Data Science';
```

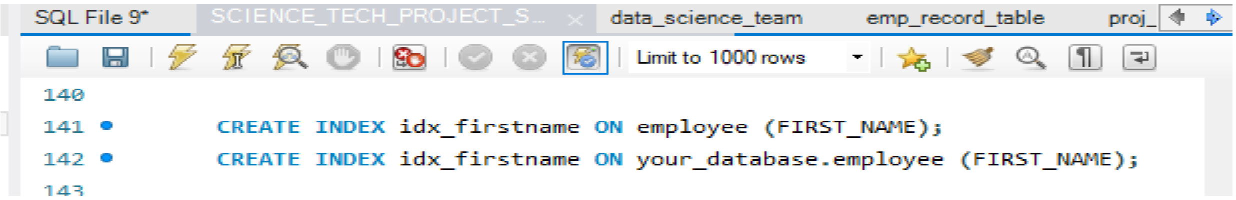


```
SELECT
    EMP_ID,
    FIRST_NAME,
    LAST_NAME,
    EXP,
    GetJobProfile(EXP) AS Job_Profile
FROM
    emp_record_table
WHERE
    DEPT = 'Data Science';
```

---

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.

CREATE INDEX idx_firstname ON employee (FIRST_NAME);
EXPLAIN SELECT * FROM employee WHERE FIRST_NAME = 'Eric';

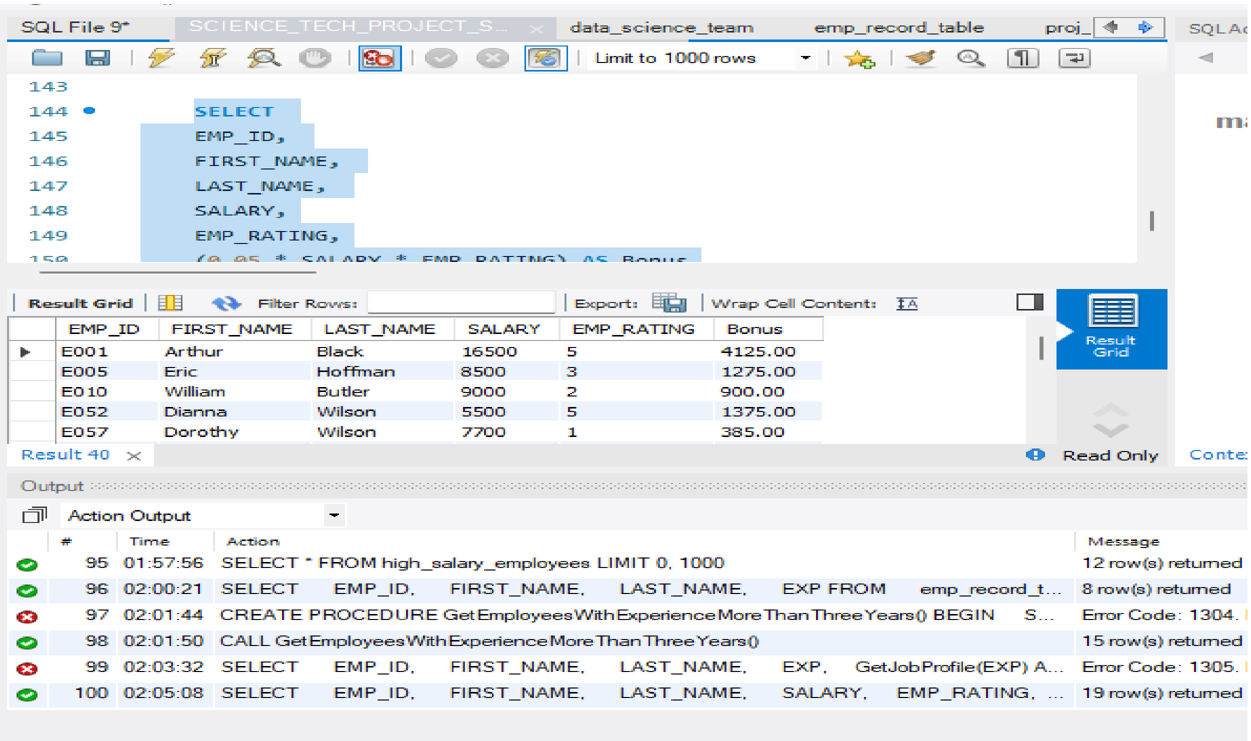


```
CREATE INDEX idx_firstname ON employee (FIRST_NAME);
CREATE INDEX idx_firstname ON your_database.employee (FIRST_NAME);
```

---

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).

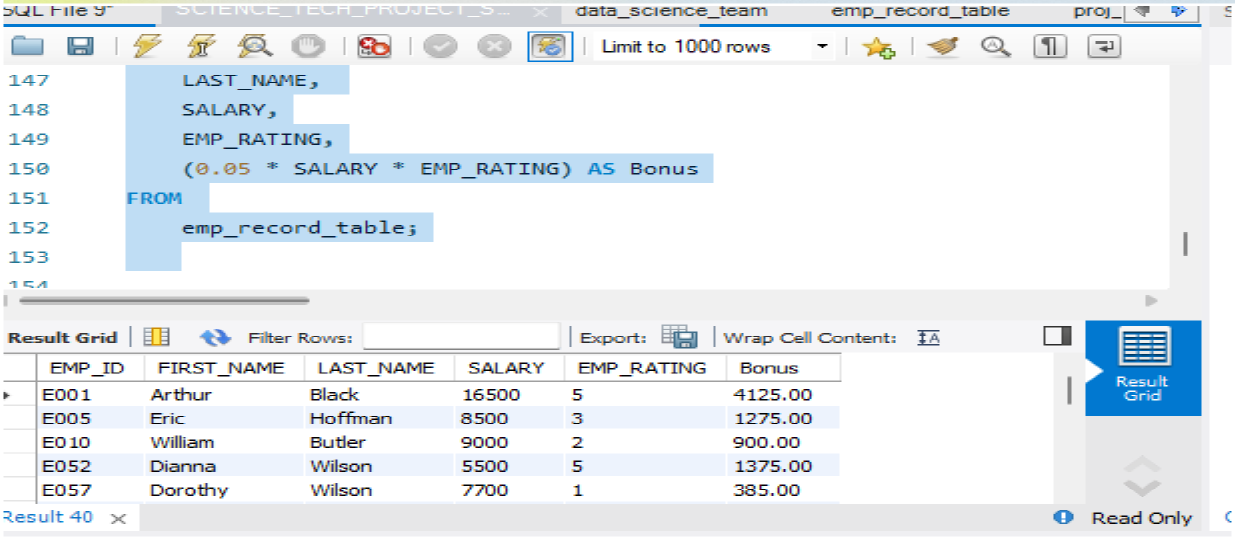
```
SELECT
  EMP_ID,
  FIRST_NAME,
  LAST_NAME,
  SALARY,
  EMP_RATING,
  (0.05 * SALARY * EMP_RATING) AS Bonus
FROM
  emp_record_table;
```



```sql
        SELECT
        EMP_ID,
        FIRST_NAME,
        LAST_NAME,
        SALARY,
        EMP_RATING,
        (0.05 * SALARY * EMP_RATING) AS Bonus
```

EMP_ID	FIRST_NAME	LAST_NAME	SALARY	EMP_RATING	Bonus
E001	Arthur	Black	16500	5	4125.00
E005	Eric	Hoffman	8500	3	1275.00
E010	William	Butler	9000	2	900.00
E052	Dianna	Wilson	5500	5	1375.00
E057	Dorothy	Wilson	7700	1	385.00

```
   #   Time      Action                                                                         Message
   95  01:57:56  SELECT * FROM high_salary_employees LIMIT 0, 1000                              12 row(s) returned
   96  02:00:21  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP FROM   emp_record_t...         8 row(s) returned
   97  02:01:44  CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears() BEGIN   S...    Error Code: 1304.
   98  02:01:50  CALL GetEmployeesWithExperienceMoreThanThreeYears()                            15 row(s) returned
   99  02:03:32  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   EXP,   GetJobProfile(EXP) A...   Error Code: 1305.
  100  02:05:08  SELECT   EMP_ID,   FIRST_NAME,   LAST_NAME,   SALARY,   EMP_RATING,  ...       19 row(s) returned
```



```sql
        LAST_NAME,
        SALARY,
        EMP_RATING,
        (0.05 * SALARY * EMP_RATING) AS Bonus
    FROM
        emp_record_table;
```

EMP_ID	FIRST_NAME	LAST_NAME	SALARY	EMP_RATING	Bonus
E001	Arthur	Black	16500	5	4125.00
E005	Eric	Hoffman	8500	3	1275.00
E010	William	Butler	9000	2	900.00
E052	Dianna	Wilson	5500	5	1375.00
E057	Dorothy	Wilson	7700	1	385.00

----

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

SELECT

CONTINENT,

COUNTRY,

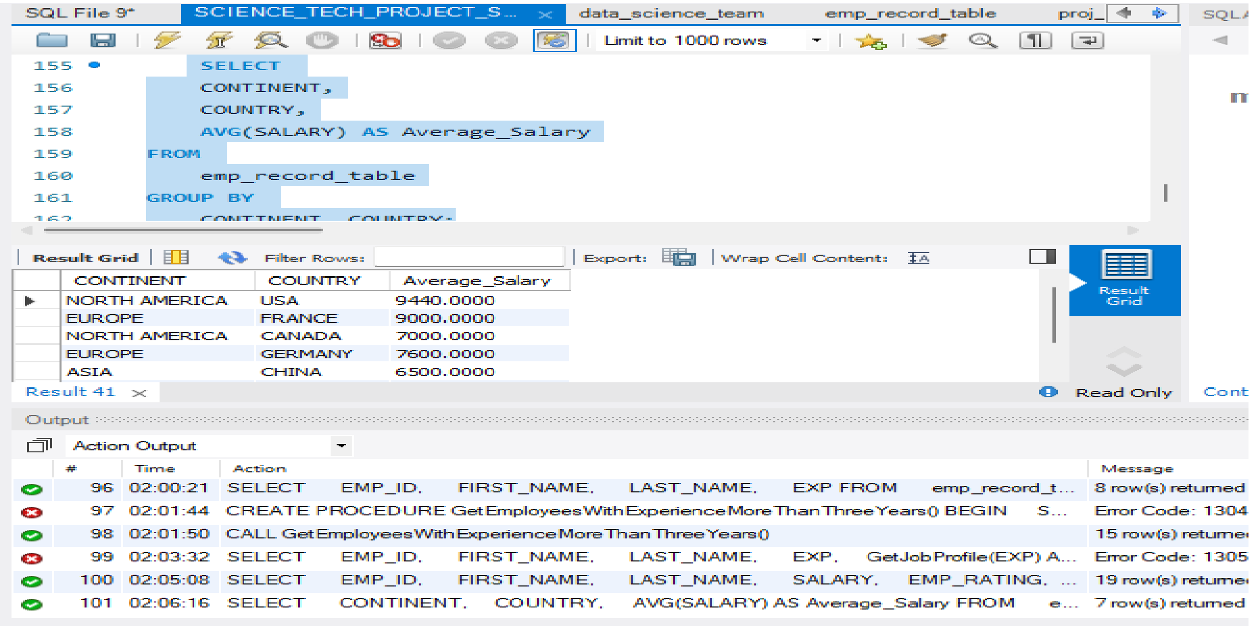
AVG(SALARY) AS Average_Salary

FROM

  emp_record_table

GROUP BY

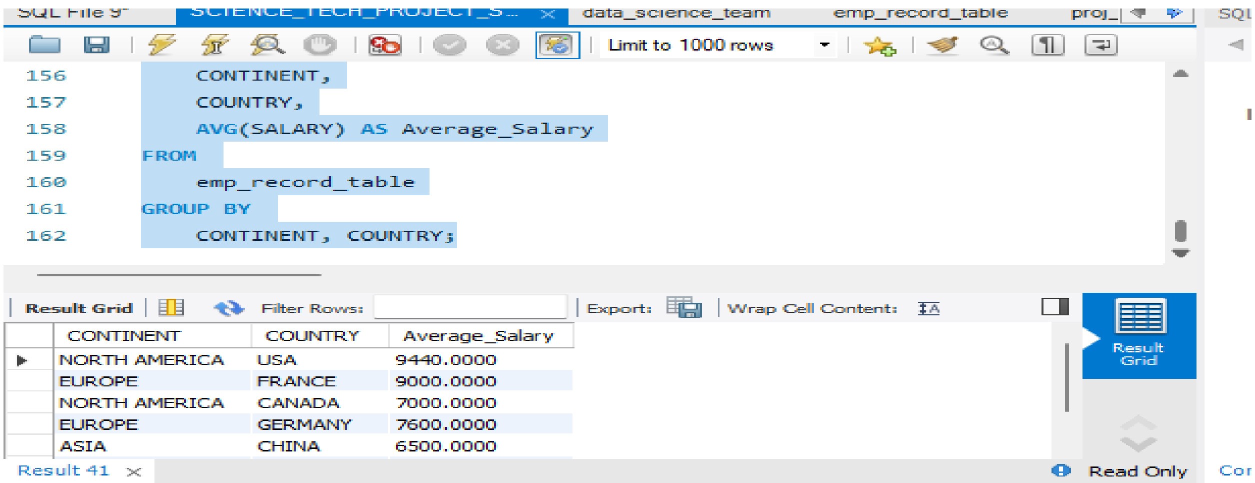
  CONTINENT, COUNTRY;



```
    SELECT
        CONTINENT,
        COUNTRY,
        AVG(SALARY) AS Average_Salary
    FROM
        emp_record_table
    GROUP BY
        CONTINENT, COUNTRY;
```

CONTINENT	COUNTRY	Average_Salary
NORTH AMERICA	USA	9440.0000
EUROPE	FRANCE	9000.0000
NORTH AMERICA	CANADA	7000.0000
EUROPE	GERMANY	7600.0000
ASIA	CHINA	6500.0000

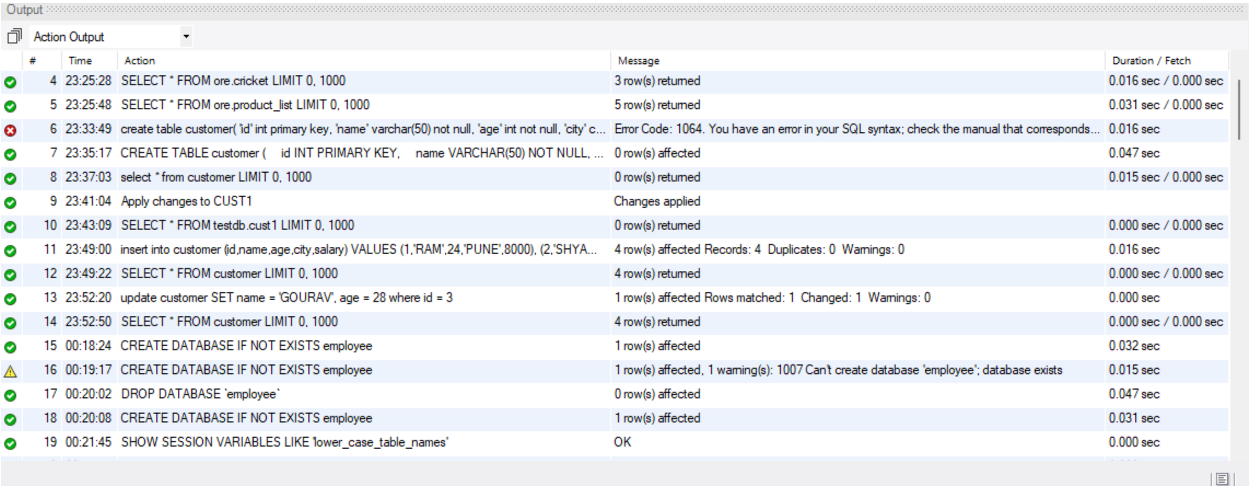
```
 #    Time      Action                                                                     Message
 96   02:00:21  SELECT  EMP_ID, FIRST_NAME, LAST_NAME, EXP FROM  emp_record_t...           8 row(s) returned
 97   02:01:44  CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears() BEGIN  S...  Error Code: 1304
 98   02:01:50  CALL GetEmployeesWithExperienceMoreThanThreeYears()                        15 row(s) returne
 99   02:03:32  SELECT  EMP_ID, FIRST_NAME, LAST_NAME, EXP, GetJobProfile(EXP) A...         Error Code: 1305
 100  02:05:08  SELECT  EMP_ID, FIRST_NAME, LAST_NAME, SALARY, EMP_RATING, ...              19 row(s) returne
 101  02:06:16  SELECT  CONTINENT, COUNTRY, AVG(SALARY) AS Average_Salary FROM  e...        7 row(s) returned
```



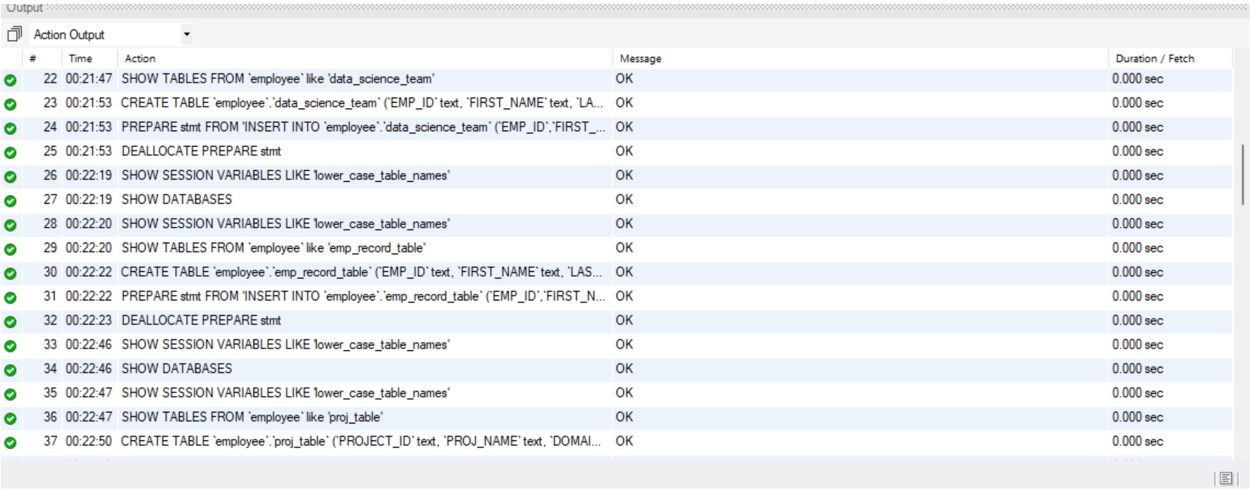
```
        CONTINENT,
        COUNTRY,
        AVG(SALARY) AS Average_Salary
    FROM
        emp_record_table
    GROUP BY
        CONTINENT, COUNTRY;
```

CONTINENT	COUNTRY	Average_Salary
NORTH AMERICA	USA	9440.0000
EUROPE	FRANCE	9000.0000
NORTH AMERICA	CANADA	7000.0000
EUROPE	GERMANY	7600.0000
ASIA	CHINA	6500.0000

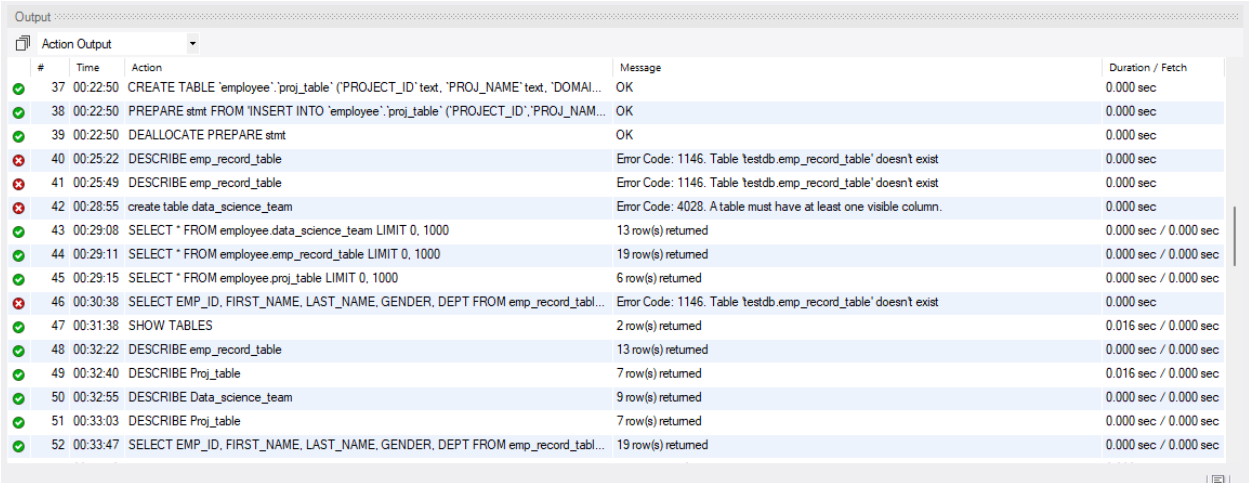
All Action output screenshot: -



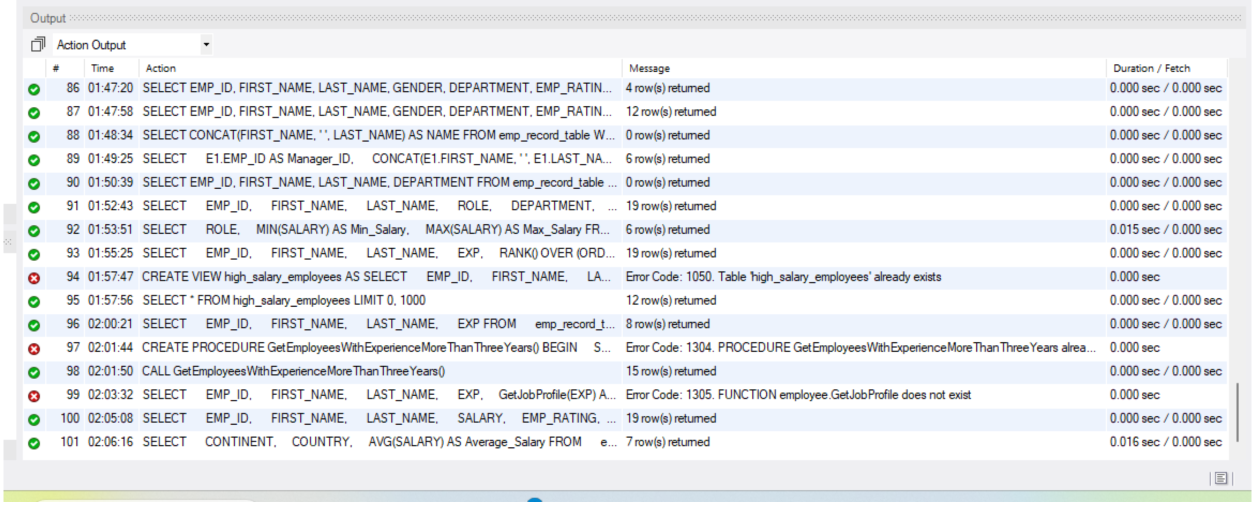
```
    #   Time      Action                                                                                Message                                                                          Duration / Fetch
✓   4   23:25:28  SELECT * FROM ore.cricket LIMIT 0, 1000                                               3 row(s) returned                                                                0.016 sec / 0.000 sec
✓   5   23:25:48  SELECT * FROM ore.product_list LIMIT 0, 1000                                          5 row(s) returned                                                                0.031 sec / 0.000 sec
✗   6   23:33:49  create table customer( 'id' int primary key, 'name' varchar(50) not null, 'age' int not null, 'city' c...   Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds...   0.016 sec
✓   7   23:35:17  CREATE TABLE customer (     id INT PRIMARY KEY,     name VARCHAR(50) NOT NULL, ...      0 row(s) affected                                                                0.047 sec
✓   8   23:37:03  select * from customer LIMIT 0, 1000                                                  0 row(s) returned                                                                0.015 sec / 0.000 sec
✓   9   23:41:04  Apply changes to CUST1                                                                Changes applied
✓   10  23:43:09  SELECT * FROM testdb.cust1 LIMIT 0, 1000                                              0 row(s) returned                                                                0.000 sec / 0.000 sec
✓   11  23:49:00  insert into customer (id,name,age,city,salary) VALUES (1,'RAM',24,'PUNE',8000), (2,'SHYA...   4 row(s) affected Records: 4  Duplicates: 0  Warnings: 0                        0.016 sec
✓   12  23:49:22  SELECT * FROM customer LIMIT 0, 1000                                                  4 row(s) returned                                                                0.000 sec / 0.000 sec
✓   13  23:52:20  update customer SET name = 'GOURAV', age = 28 where id = 3                            1 row(s) affected Rows matched: 1  Changed: 1  Warnings: 0                      0.000 sec
✓   14  23:52:50  SELECT * FROM customer LIMIT 0, 1000                                                  4 row(s) returned                                                                0.000 sec / 0.000 sec
✓   15  00:18:24  CREATE DATABASE IF NOT EXISTS employee                                                1 row(s) affected                                                                0.032 sec
⚠   16  00:19:17  CREATE DATABASE IF NOT EXISTS employee                                                1 row(s) affected, 1 warning(s): 1007 Can't create database 'employee'; database exists   0.015 sec
✓   17  00:20:02  DROP DATABASE `employee`                                                              0 row(s) affected                                                                0.047 sec
✓   18  00:20:08  CREATE DATABASE IF NOT EXISTS employee                                                1 row(s) affected                                                                0.031 sec
✓   19  00:21:45  SHOW SESSION VARIABLES LIKE 'lower_case_table_names'                                  OK                                                                               0.000 sec
```



```
    #   Time      Action                                                                                Message   Duration / Fetch
✓   22  00:21:47  SHOW TABLES FROM `employee` like 'data_science_team'                                  OK        0.000 sec
✓   23  00:21:53  CREATE TABLE `employee`.`data_science_team` (`EMP_ID` text, `FIRST_NAME` text, `LA...  OK        0.000 sec
✓   24  00:21:53  PREPARE stmt FROM 'INSERT INTO `employee`.`data_science_team` (`EMP_ID`,`FIRST_...     OK        0.000 sec
✓   25  00:21:53  DEALLOCATE PREPARE stmt                                                               OK        0.000 sec
✓   26  00:22:19  SHOW SESSION VARIABLES LIKE 'lower_case_table_names'                                  OK        0.000 sec
✓   27  00:22:19  SHOW DATABASES                                                                        OK        0.000 sec
✓   28  00:22:20  SHOW SESSION VARIABLES LIKE 'lower_case_table_names'                                  OK        0.000 sec
✓   29  00:22:20  SHOW TABLES FROM `employee` like 'emp_record_table'                                   OK        0.000 sec
✓   30  00:22:22  CREATE TABLE `employee`.`emp_record_table` (`EMP_ID` text, `FIRST_NAME` text, `LAS...  OK        0.000 sec
✓   31  00:22:22  PREPARE stmt FROM 'INSERT INTO `employee`.`emp_record_table` (`EMP_ID`,`FIRST_N...     OK        0.000 sec
✓   32  00:22:23  DEALLOCATE PREPARE stmt                                                               OK        0.000 sec
✓   33  00:22:46  SHOW SESSION VARIABLES LIKE 'lower_case_table_names'                                  OK        0.000 sec
✓   34  00:22:46  SHOW DATABASES                                                                        OK        0.000 sec
✓   35  00:22:47  SHOW SESSION VARIABLES LIKE 'lower_case_table_names'                                  OK        0.000 sec
✓   36  00:22:47  SHOW TABLES FROM `employee` like 'proj_table'                                         OK        0.000 sec
✓   37  00:22:50  CREATE TABLE `employee`.`proj_table` (`PROJECT_ID` text, `PROJ_NAME` text, `DOMAI...   OK        0.000 sec
```



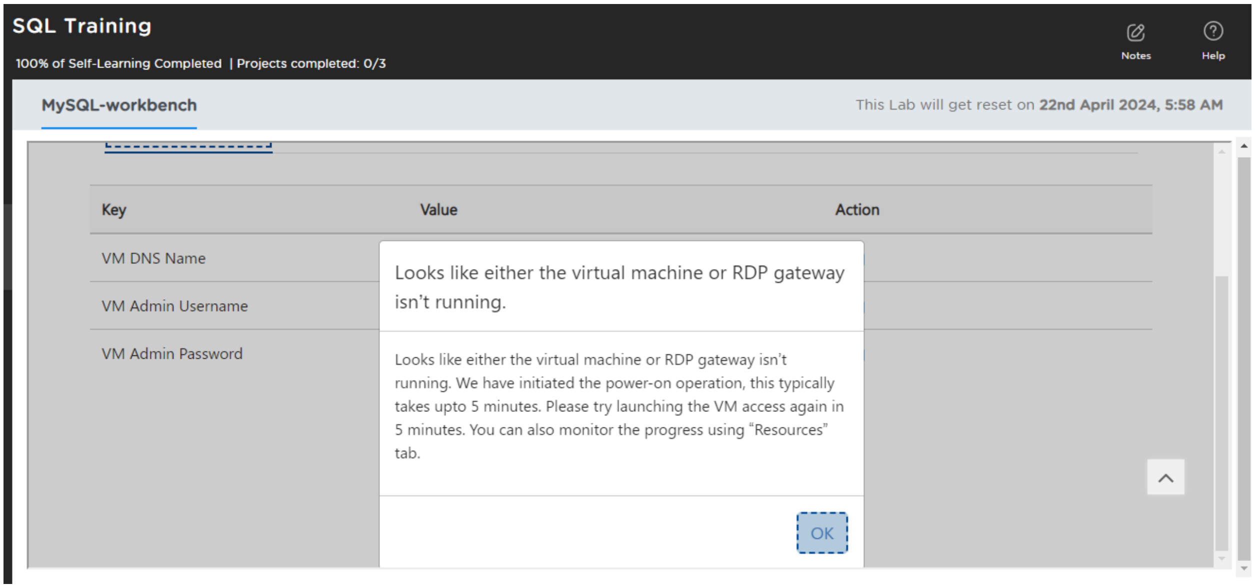
```
    #   Time      Action                                                                                Message                                                        Duration / Fetch
✓   37  00:22:50  CREATE TABLE `employee`.`proj_table` (`PROJECT_ID` text, `PROJ_NAME` text, `DOMAI...   OK                                                             0.000 sec
✓   38  00:22:50  PREPARE stmt FROM 'INSERT INTO `employee`.`proj_table` (`PROJECT_ID`,`PROJ_NAM...      OK                                                             0.000 sec
✓   39  00:22:50  DEALLOCATE PREPARE stmt                                                               OK                                                             0.000 sec
✗   40  00:25:22  DESCRIBE emp_record_table                                                             Error Code: 1146. Table 'testdb.emp_record_table' doesn't exist   0.000 sec
✗   41  00:25:49  DESCRIBE emp_record_table                                                             Error Code: 1146. Table 'testdb.emp_record_table' doesn't exist   0.000 sec
✗   42  00:28:55  create table data_science_team                                                        Error Code: 4028. A table must have at least one visible column.   0.000 sec
✓   43  00:29:08  SELECT * FROM employee.data_science_team LIMIT 0, 1000                                13 row(s) returned                                             0.000 sec / 0.000 sec
✓   44  00:29:11  SELECT * FROM employee.emp_record_table LIMIT 0, 1000                                 19 row(s) returned                                             0.000 sec / 0.000 sec
✓   45  00:29:15  SELECT * FROM employee.proj_table LIMIT 0, 1000                                       6 row(s) returned                                              0.000 sec / 0.000 sec
✗   46  00:30:38  SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT FROM emp_record_tabl...            Error Code: 1146. Table 'testdb.emp_record_table' doesn't exist   0.000 sec
✓   47  00:31:38  SHOW TABLES                                                                           2 row(s) returned                                              0.016 sec / 0.000 sec
✓   48  00:32:22  DESCRIBE emp_record_table                                                             13 row(s) returned                                             0.000 sec / 0.000 sec
✓   49  00:32:40  DESCRIBE Proj_table                                                                   7 row(s) returned                                              0.016 sec / 0.000 sec
✓   50  00:32:55  DESCRIBE Data_science_team                                                            9 row(s) returned                                              0.000 sec / 0.000 sec
✓   51  00:33:03  DESCRIBE Proj_table                                                                   7 row(s) returned                                              0.000 sec / 0.000 sec
✓   52  00:33:47  SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT FROM emp_record_tabl...            19 row(s) returned                                             0.000 sec / 0.000 sec
```



Output

Action Output

	#	Time	Action	Message	Duration / Fetch
✓	86	01:47:20	SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATIN...	4 row(s) returned	0.000 sec / 0.000 sec
✓	87	01:47:58	SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPARTMENT, EMP_RATIN...	12 row(s) returned	0.000 sec / 0.000 sec
✓	88	01:48:34	SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS NAME FROM emp_record_table W...	0 row(s) returned	0.000 sec / 0.000 sec
✓	89	01:49:25	SELECT E1.EMP_ID AS Manager_ID, CONCAT(E1.FIRST_NAME, ' ', E1.LAST_NA...	6 row(s) returned	0.000 sec / 0.000 sec
✓	90	01:50:39	SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPARTMENT FROM emp_record_table ...	0 row(s) returned	0.000 sec / 0.000 sec
✓	91	01:52:43	SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPARTMENT, ...	19 row(s) returned	0.000 sec / 0.000 sec
✓	92	01:53:51	SELECT ROLE, MIN(SALARY) AS Min_Salary, MAX(SALARY) AS Max_Salary FR...	6 row(s) returned	0.015 sec / 0.000 sec
✓	93	01:55:25	SELECT EMP_ID, FIRST_NAME, LAST_NAME, EXP, RANK() OVER (ORD...	19 row(s) returned	0.000 sec / 0.000 sec
✗	94	01:57:47	CREATE VIEW high_salary_employees AS SELECT EMP_ID, FIRST_NAME, LA...	Error Code: 1050. Table 'high_salary_employees' already exists	0.000 sec
✓	95	01:57:56	SELECT * FROM high_salary_employees LIMIT 0, 1000	12 row(s) returned	0.000 sec / 0.000 sec
✓	96	02:00:21	SELECT EMP_ID, FIRST_NAME, LAST_NAME, EXP FROM emp_record_t...	8 row(s) returned	0.000 sec / 0.000 sec
✗	97	02:01:44	CREATE PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears() BEGIN S...	Error Code: 1304. PROCEDURE GetEmployeesWithExperienceMoreThanThreeYears alrea...	0.000 sec
✓	98	02:01:50	CALL GetEmployeesWithExperienceMoreThanThreeYears()	15 row(s) returned	0.000 sec / 0.000 sec
✗	99	02:03:32	SELECT EMP_ID, FIRST_NAME, LAST_NAME, EXP, GetJobProfile(EXP) A...	Error Code: 1305. FUNCTION employee.GetJobProfile does not exist	0.000 sec
✓	100	02:05:08	SELECT EMP_ID, FIRST_NAME, LAST_NAME, SALARY, EMP_RATING, ...	19 row(s) returned	0.000 sec / 0.000 sec
✓	101	02:06:16	SELECT CONTINENT, COUNTRY, AVG(SALARY) AS Average_Salary FROM e...	7 row(s) returned	0.016 sec / 0.000 sec



SQL Training

100% of Self-Learning Completed | Projects completed: 0/3

MySQL-workbench

This Lab will get reset on **22nd April 2024, 5:58 AM**

Key	Value	Action
VM DNS Name		
VM Admin Username		
VM Admin Password		

Looks like either the virtual machine or RDP gateway isn't running.

Looks like either the virtual machine or RDP gateway isn't running. We have initiated the power-on operation, this typically takes upto 5 minutes. Please try launching the VM access again in 5 minutes. You can also monitor the progress using "Resources" tab.