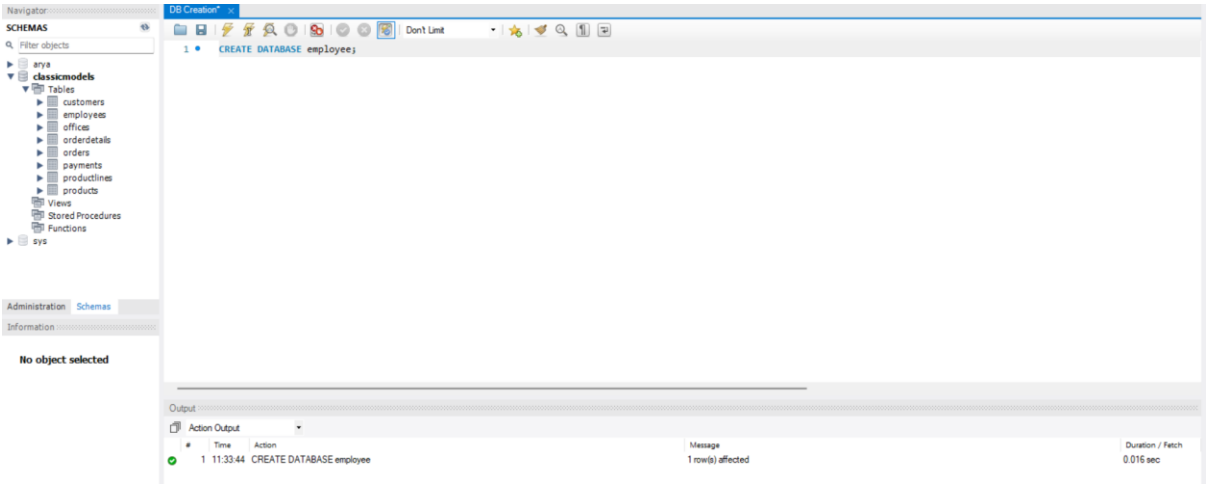
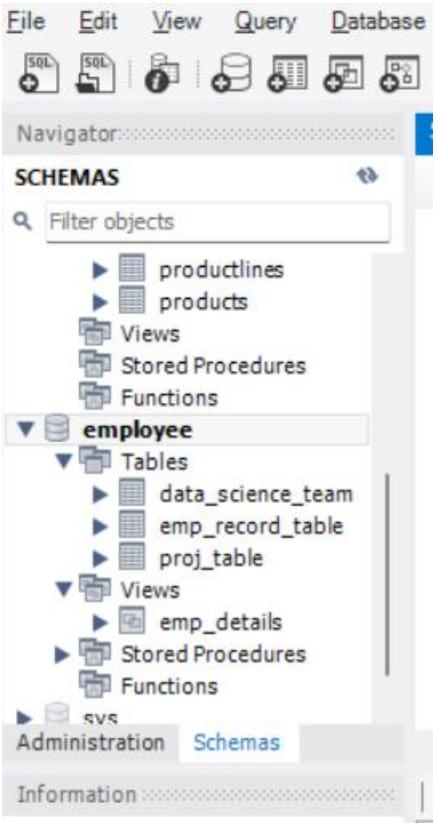
1.Create a database named employee, then import data_science_team.csv proj_table.csv and emp_record_table.csv into the employee database from the given resources.

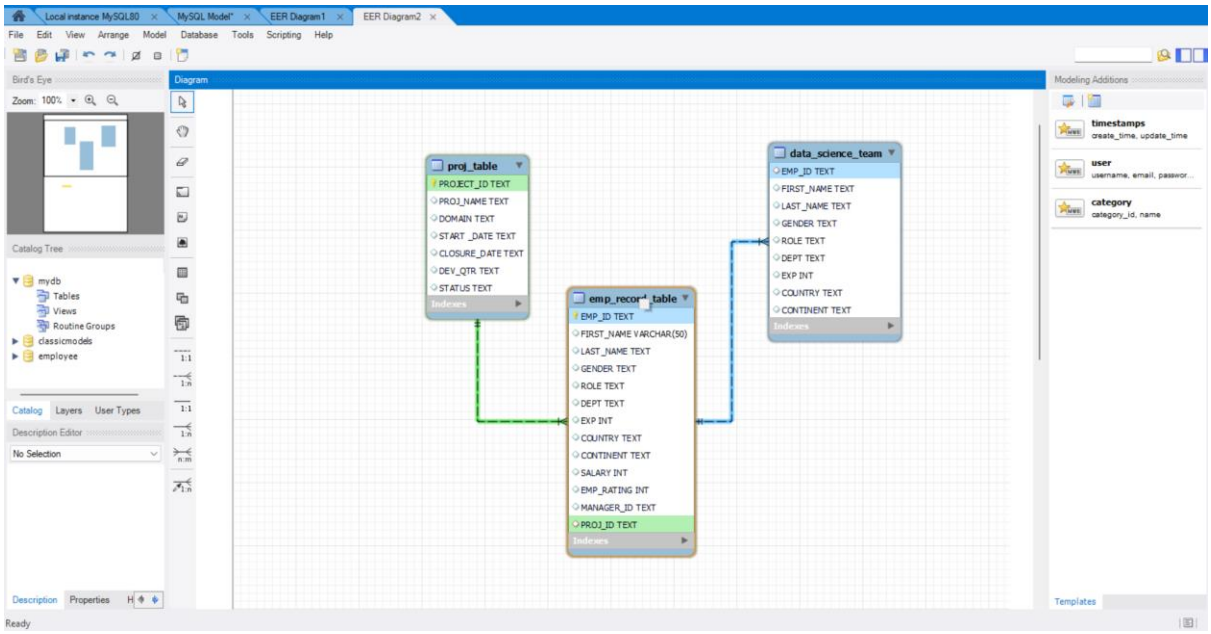
SQL Code:

CREATE DATABASE employee;





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.

SQL Code:

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT

FROM emp_record_table;

```
1 •  SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT
2    FROM emp_record_table;
```

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
E103	Emily	Grove	F	FINANCE
E204	Karene	Nowak	F	AUTOMOTIVE
E245	Nian	Zhen	M	RETAIL
E260	Roy	Collins	M	RETAIL
E403	Steve	Hoffman	M	FINANCE
E428	Pete	Allen	M	AUTOMOTIVE
E478	David	Smith	M	RETAIL
E505	Chad	Wilson	M	HEALTHCARE
E532	Claire	Brennan	F	AUTOMOTIVE
E583	Janet	Hale	F	RETAIL
E612	Tracy	Norris	F	RETAIL
E620	Katrina	Allen	F	RETAIL
E640	Jenifer	Jhones	F	RETAIL

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

greater than four

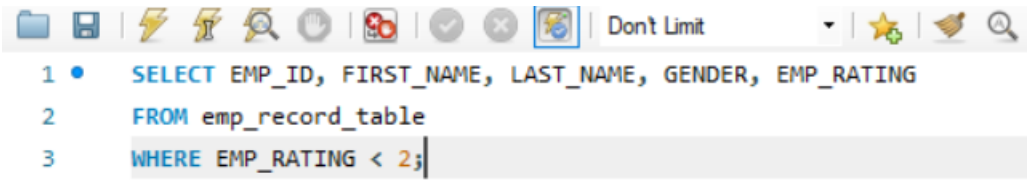
between two and four

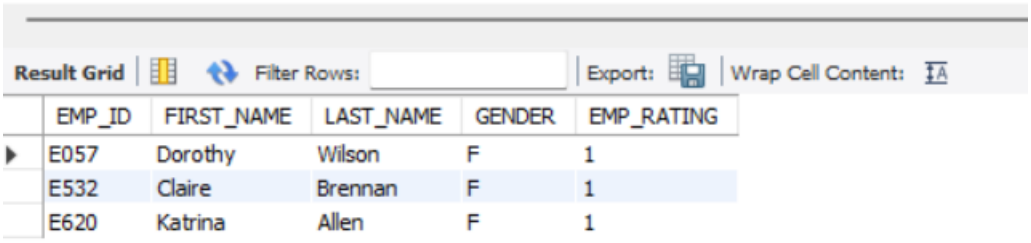
Code:

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING < 2;



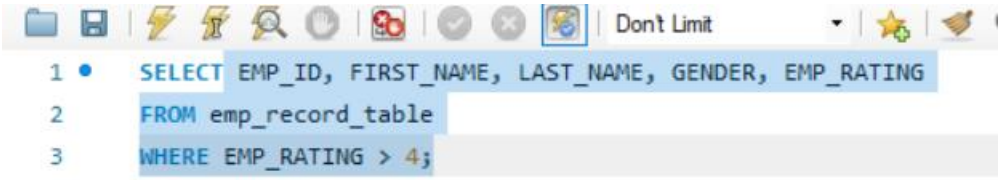


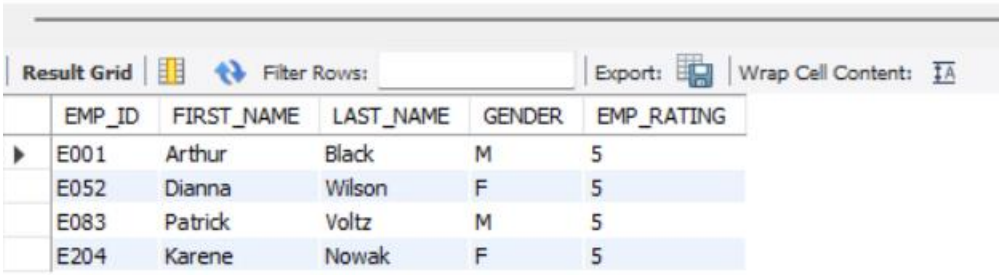
EMP_ID	FIRST_NAME	LAST_NAME	GENDER	EMP_RATING
E057	Dorothy	Wilson	F	1
E532	Claire	Brennan	F	1
E620	Katrina	Allen	F	1

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING > 4;



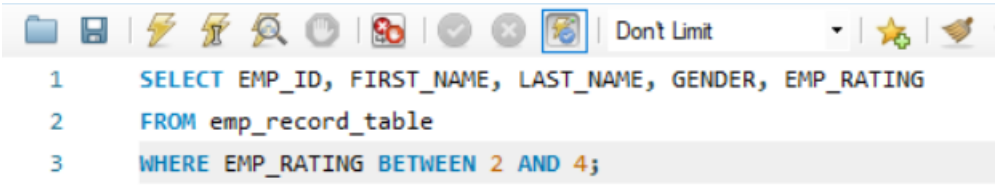


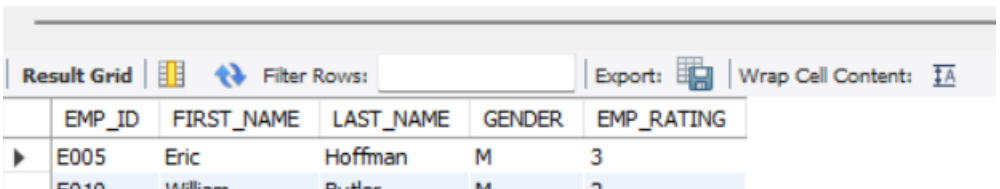
EMP_ID	FIRST_NAME	LAST_NAME	GENDER	EMP_RATING
E001	Arthur	Black	M	5
E052	Dianna	Wilson	F	5
E083	Patrick	Voltz	M	5
E204	Karene	Nowak	F	5

SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, EMP_RATING

FROM emp_record_table

WHERE EMP_RATING BETWEEN 2 AND 4;





EMP_ID	FIRST_NAME	LAST_NAME	GENDER	EMP_RATING
E005	Eric	Hoffman	M	3
E010	William	Butler	M	2
E103	Emily	Grove	F	4
E245	Nian	Zhen	M	2
E260	Roy	Collins	M	3
E403	Steve	Hoffman	M	3
E428	Pete	Allen	M	4
E478	David	Smith	M	4
E505	Chad	Wilson	M	2
E583	Janet	Hale	F	2
E612	Tracy	Norris	F	4
E640	Jenifer	Jhones	F	4

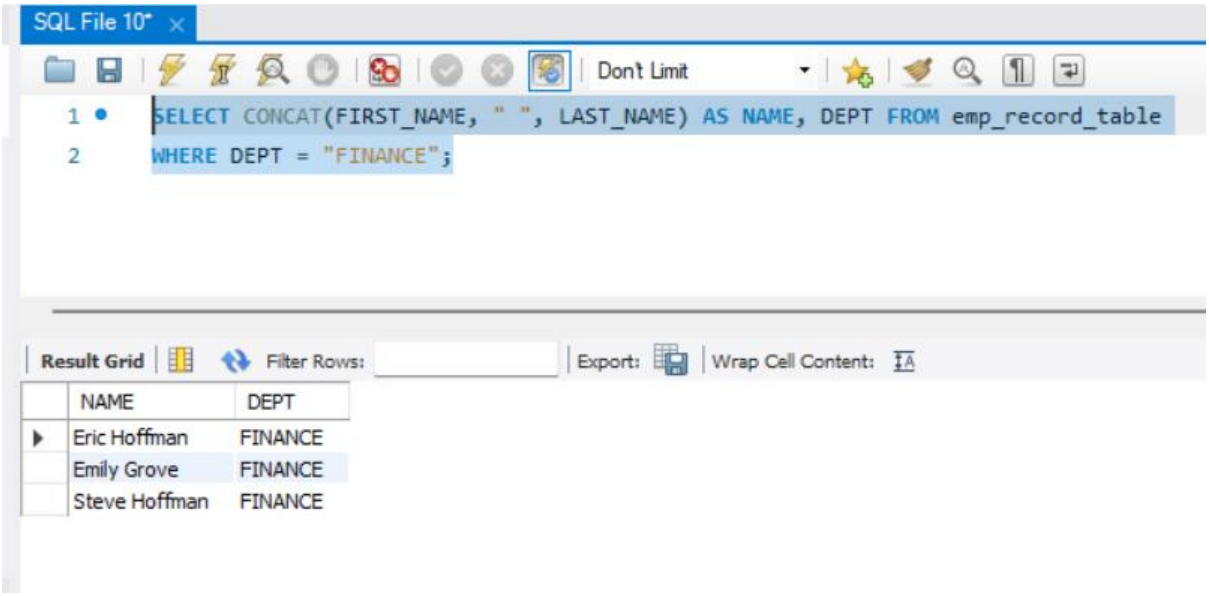
5.Write a query to concatenate the FIRST_NAME and the LAST_NAME of employees in the Finance department from the employee table and then give the resultant column alias as NAME.

Code:

SELECT CONCAT(FIRST_NAME, " ", LAST_NAME) AS NAME, DEPT

FROM emp_record_table

WHERE DEPT = "FINANCE";



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

Code:

SELECT e.EMP_ID,e.FIRST_NAME,e.LAST_NAME, COUNT(r.MANAGER_ID) AS Emp_Count

FROM emp_record_table e

JOIN emp_record_table r ON e.EMP_ID= r.MANAGER_ID

group by e.EMP_ID,e.FIRST_NAME,e.LAST_NAME

ORDER BY e.EMP_ID;

```
1 •  SELECT e.EMP_ID,e.FIRST_NAME,e.LAST_NAME, COUNT(r.MANAGER_ID) AS Emp_Count
2    FROM emp_record_table e JOIN emp_record_table r ON e.EMP_ID= r.MANAGER_ID
3    group by e.EMP_ID,e.FIRST_NAME,e.LAST_NAME
4    ORDER BY e.EMP_ID;
```

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

EMP_ID	FIRST_NAME	LAST_NAME	Emp_Count
E001	Arthur	Black	5
E083	Patrick	Voltz	3
E103	Emily	Grove	2
E428	Pete	Allen	3
E583	Janet	Hale	3
E612	Tracy	Norris	2

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.

Code:

SELECT EMP_ID, CONCAT (FIRST_NAME," ", LAST_NAME) AS NAME,GENDER, ROLE, DEPT, EXP

FROM emp_record_table

WHERE DEPT = 'FINANCE'

UNION

SELECT EMP_ID, CONCAT (FIRST_NAME," ", LAST_NAME) AS NAME,GENDER, ROLE, DEPT, EXP

FROM emp_record_table

WHERE DEPT = 'HEALTHCARE'

ORDER BY DEPT;

```sql
SELECT EMP_ID, CONCAT (FIRST_NAME," ", LAST_NAME) AS NAME,GENDER, ROLE, DEPT, EXP
FROM emp_record_table
WHERE DEPT = 'FINANCE'

UNION

SELECT EMP_ID, CONCAT (FIRST_NAME," ", LAST_NAME) AS NAME,GENDER, ROLE, DEPT, EXP
FROM emp_record_table
WHERE DEPT = 'HEALTHCARE'
ORDER BY DEPT;
```

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

EMP_ID	NAME	GENDER	ROLE	DEPT	EXP
E005	Eric Hoffman	M	LEAD DATA SCIENTIST	FINANCE	11
E103	Emily Grove	F	MANAGER	FINANCE	14
E403	Steve Hoffman	M	ASSOCIATE DATA SCIENTIST	FINANCE	4
E052	Dianna Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	6
E057	Dorothy Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	9
E083	Patrick Voltz	M	MANAGER	HEALTHCARE	15
E505	Chad Wilson	M	ASSOCIATE DATA SCIENTIST	HEALTHCARE	5

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.

Code:

SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EMP_RATING, MAX(EMP_RATING) OVER (PARTITION BY DEPT) AS Max_Dept_Rating

FROM emp_record_table;

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

EMP_ID	FIRST_NAME	LAST_NAME	ROLE	DEPT	EMP_RATING	Max_Dept_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
E103	Emily	Grove	MANAGER	FINANCE	4	4
E403	Steve	Hoffman	ASSOCIATE DATA SCIENTIST	FINANCE	3	4
E052	Dianna	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	5	5
E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	1	5
E083	Patrick	Voltz	MANAGER	HEALTHCARE	5	5
E505	Chad	Wilson	ASSOCIATE DATA SCIENTIST	HEALTHCARE	2	5
E245	Nian	Zhen	SENIOR DATA SCIENTIST	RETAIL	2	4
E260	Roy	Collins	SENIOR DATA SCIENTIST	RETAIL	3	4
E478	David	Smith	ASSOCIATE DATA SCIENTIST	RETAIL	4	4
E583	Janet	Hale	MANAGER	RETAIL	2	4
E612	Tracy	Norris	MANAGER	RETAIL	4	4
E620	Katrina	Allen	JUNIOR DATA SCIENTIST	RETAIL	1	4
E640	Jenifer	Jhones	JUNIOR DATA SCIENTIST	RETAIL	4	4

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.

Code:

SELECT DISTINCT ROLE, MAX(SALARY) OVER(PARTITION BY ROLE) AS MAX_Salary, MIN(SALARY) OVER(PARTITION BY ROLE) AS MIN_Salary

FROM emp_record_table;

```
SELECT DISTINCT ROLE, MAX(SALARY) OVER(PARTITION BY ROLE) AS MAX_Salary, MIN(SALARY) OVER(PARTITION BY ROLE) AS MIN_Salary
FROM emp_record_table;
```

ROLE	MAX_Salary	MIN_Salary
ASSOCIATE DATA SCIENTIST	5000	4000
JUNIOR DATA SCIENTIST	3000	2800
LEAD DATA SCIENTIST	9000	8500
MANAGER	11000	8500
PRESIDENT	16500	16500
SENIOR DATA SCIENTIST	7700	5500

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

Code:

SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPT, ROLE, EXP, RANK() OVER (ORDER BY EXP) AS "RANK",DENSE_RANK() OVER (ORDER BY EXP) AS "DENSE RANK"

FROM emp_record_table;

```
1 •  SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPT, ROLE, EXP, RANK() OVER (ORDER BY EXP) AS "RANK",DENSE_RANK() OVER (ORDER BY EXP) AS "DENSE RANK"
2    FROM emp_record_table;
3
```

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

EMP_ID	FIRST_NAME	LAST_NAME	DEPT	ROLE	EXP	RANK	DENSE RANK
E640	Jenifer	Jhones	RETAIL	JUNIOR DATA SCIENTIST	1	1	1
E620	Katrina	Allen	RETAIL	JUNIOR DATA SCIENTIST	2	2	2
E478	David	Smith	RETAIL	ASSOCIATE DATA SCIENTIST	3	3	3
E532	Claire	Brennan	AUTOMOTIVE	ASSOCIATE DATA SCIENTIST	3	3	3
E403	Steve	Hoffman	FINANCE	ASSOCIATE DATA SCIENTIST	4	5	4
E505	Chad	Wilson	HEALTHCARE	ASSOCIATE DATA SCIENTIST	5	6	5
E052	Dianna	Wilson	HEALTHCARE	SENIOR DATA SCIENTIST	6	7	6
E245	Nian	Zhen	RETAIL	SENIOR DATA SCIENTIST	6	7	6
E260	Roy	Collins	RETAIL	SENIOR DATA SCIENTIST	7	9	7
E204	Karene	Nowak	AUTOMOTIVE	SENIOR DATA SCIENTIST	8	10	8
E057	Dorothy	Wilson	HEALTHCARE	SENIOR DATA SCIENTIST	9	11	9
E005	Eric	Hoffman	FINANCE	LEAD DATA SCIENTIST	11	12	10
E010	William	Butler	AUTOMOTIVE	LEAD DATA SCIENTIST	12	13	11
E612	Tracy	Norris	RETAIL	MANAGER	13	14	12
E103	Emily	Grove	FINANCE	MANAGER	14	15	13
E428	Pete	Allen	AUTOMOTIVE	MANAGER	14	15	13
E583	Janet	Hale	RETAIL	MANAGER	14	15	13
E083	Patrick	Voltz	HEALTHCARE	MANAGER	15	18	14
E001	Arthur	Black	ALL	PRESIDENT	20	19	15

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.

Code:

CREATE VIEW Emp_details AS

SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPT, ROLE, COUNTRY, SALARY

FROM emp_record_table

WHERE SALARY > 6000;

SELECT * FROM Emp_details;

```
1 •  CREATE VIEW Emp_details AS
2    SELECT EMP_ID, FIRST_NAME, LAST_NAME, DEPT, ROLE, COUNTRY, SALARY
3    FROM emp_record_table
4    WHERE SALARY > 6000;
5 •  SELECT * FROM Emp_details;
```

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

EMP_ID	FIRST_NAME	LAST_NAME	DEPT	ROLE	COUNTRY	SALARY
E001	Arthur	Black	ALL	PRESIDENT	USA	16500
E005	Eric	Hoffman	FINANCE	LEAD DATA SCIENTIST	USA	8500
E010	William	Butler	AUTOMOTIVE	LEAD DATA SCIENTIST	FRANCE	9000
E057	Dorothy	Wilson	HEALTHCARE	SENIOR DATA SCIENTIST	USA	7700
E083	Patrick	Voltz	HEALTHCARE	MANAGER	USA	9500
E103	Emily	Grove	FINANCE	MANAGER	CANADA	10500
E204	Karene	Nowak	AUTOMOTIVE	SENIOR DATA SCIENTIST	GERMANY	7500
E245	Nian	Zhen	RETAIL	SENIOR DATA SCIENTIST	CHINA	6500
E260	Roy	Collins	RETAIL	SENIOR DATA SCIENTIST	INDIA	7000
E428	Pete	Allen	AUTOMOTIVE	MANAGER	GERMANY	11000
E583	Janet	Hale	RETAIL	MANAGER	COLOMBIA	10000
E612	Tracy	Norris	RETAIL	MANAGER	INDIA	8500

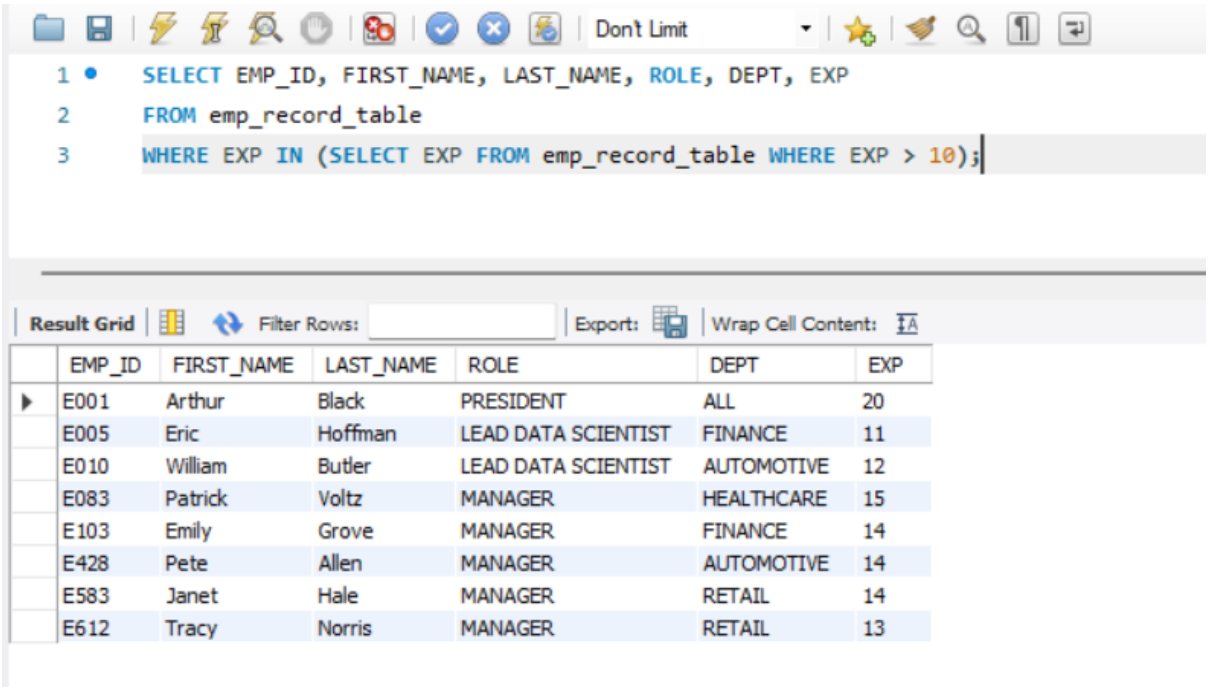
12.Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.

Code:

SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EXP

FROM emp_record_table

WHERE EXP IN (SELECT EXP FROM emp_record_table WHERE EXP > 10);



```
SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EXP
FROM emp_record_table
WHERE EXP IN (SELECT EXP FROM emp_record_table WHERE EXP > 10);
```

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

EMP_ID	FIRST_NAME	LAST_NAME	ROLE	DEPT	EXP
E001	Arthur	Black	PRESIDENT	ALL	20
E005	Eric	Hoffman	LEAD DATA SCIENTIST	FINANCE	11
E010	William	Butler	LEAD DATA SCIENTIST	AUTOMOTIVE	12
E083	Patrick	Voltz	MANAGER	HEALTHCARE	15
E103	Emily	Grove	MANAGER	FINANCE	14
E428	Pete	Allen	MANAGER	AUTOMOTIVE	14
E583	Janet	Hale	MANAGER	RETAIL	14
E612	Tracy	Norris	MANAGER	RETAIL	13

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.

Code:

```
DELIMITER $$
CREATE PROCEDURE Emp_Experience()
BEGIN
SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EXP
FROM emp_record_table
WHERE EXP > 3;
END $$
CALL Emp_Experience();
```

```
1   DELIMITER $$
2   CREATE PROCEDURE Emp_Experience()
3   BEGIN
4   SELECT EMP_ID, FIRST_NAME, LAST_NAME, ROLE, DEPT, EXP
5   FROM emp_record_table
6   WHERE EXP > 3;
7   END $$
8   CALL Emp_Experience();
```

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

EMP_ID	FIRST_NAME	LAST_NAME	ROLE	DEPT	EXP
E001	Arthur	Black	PRESIDENT	ALL	20
E005	Eric	Hoffman	LEAD DATA SCIENTIST	FINANCE	11
E010	William	Butler	LEAD DATA SCIENTIST	AUTOMOTIVE	12
E052	Dianna	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	6
E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	9
E083	Patrick	Voltz	MANAGER	HEALTHCARE	15
E103	Emily	Grove	MANAGER	FINANCE	14
E204	Karene	Nowak	SENIOR DATA SCIENTIST	AUTOMOTIVE	8
E245	Nian	Zhen	SENIOR DATA SCIENTIST	RETAIL	6
E260	Roy	Collins	SENIOR DATA SCIENTIST	RETAIL	7
E403	Steve	Hoffman	ASSOCIATE DATA SCIEN...	FINANCE	4
E428	Pete	Allen	MANAGER	AUTOMOTIVE	14
E505	Chad	Wilson	ASSOCIATE DATA SCIEN...	HEALTHCARE	5
E583	Janet	Hale	MANAGER	RETAIL	14
E612	Tracy	Norris	MANAGER	RETAIL	13

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.

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'.

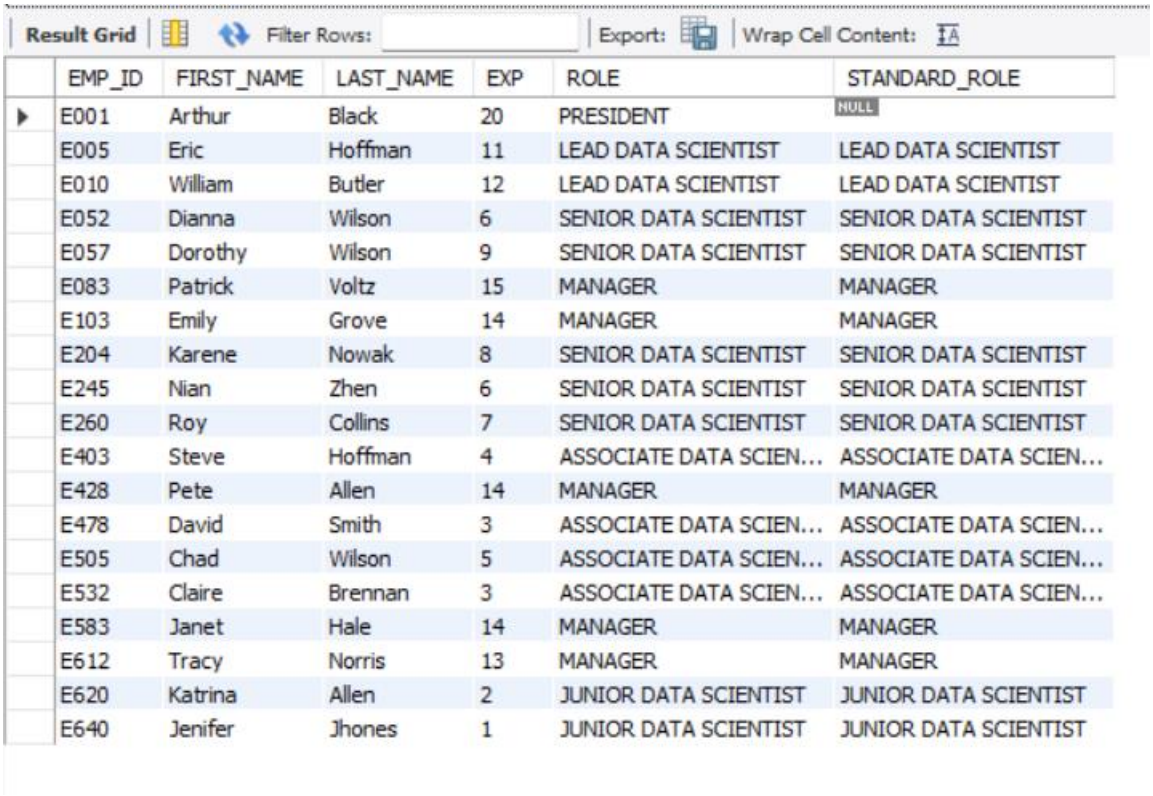
Code:

```
DELIMITER $$
CREATE FUNCTION Emp_Role(Exp Int)
RETURNS VARCHAR(100) DETERMINISTIC
BEGIN
DECLARE Role_Type VARCHAR(100);
IF Exp <= 2 THEN SET Role_Type = "JUNIOR DATA SCIENTIST";
ELSEIF Exp <= 5 THEN SET Role_Type = "ASSOCIATE DATA SCIENTIST";
ELSEIF Exp <= 10 THEN SET Role_Type = "SENIOR DATA SCIENTIST";
ELSEIF Exp <= 12 THEN SET Role_Type = "LEAD DATA SCIENTIST";
ELSEIF Exp<= 16 THEN SET Role_Type = "MANAGER";
END IF;
RETURN Role_Type;
END
$$
DELIMITER ;
SELECT EMP_ID,FIRST_NAME, LAST_NAME,EXP,ROLE, Emp_Role(EXP) AS
STANDARD_ROLE
FROM emp_record_table;
```

```
DELIMITER $$
CREATE FUNCTION Emp_Role(Exp Int)
RETURNS VARCHAR(100) DETERMINISTIC
BEGIN
DECLARE Role_Type VARCHAR(100);
IF Exp <= 2 THEN SET Role_Type = "JUNIOR DATA SCIENTIST";
ELSEIF Exp <= 5 THEN SET Role_Type = "ASSOCIATE DATA SCIENTIST";
ELSEIF Exp <= 10 THEN SET Role_Type = "SENIOR DATA SCIENTIST";
ELSEIF Exp <= 12 THEN SET Role_Type = "LEAD DATA SCIENTIST";
ELSEIF Exp<= 16 THEN SET Role_Type = "MANAGER";
END IF;
RETURN Role_Type;
END
$$
DELIMITER ;
SELECT EMP_ID,FIRST_NAME, LAST_NAME,EXP,ROLE, Emp_Role(EXP) AS STANDARD_ROLE
FROM emp_record_table;
```

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

EMP_ID	FIRST_NAME	LAST_NAME	EXP	ROLE	STANDARD_ROLE
E001	Arthur	Black	20	PRESIDENT	NULL
E005	Eric	Hoffman	11	LEAD DATA SCIENTIST	LEAD DATA SCIENTIST
E010	William	Butler	12	LEAD DATA SCIENTIST	LEAD DATA SCIENTIST
E052	Dianna	Wilson	6	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E057	Dorothy	Wilson	9	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E083	Patrick	Voltz	15	MANAGER	MANAGER
E103	Emily	Grove	14	MANAGER	MANAGER
E204	Karene	Nowak	8	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E245	Nian	Zhen	6	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E260	Roy	Collins	7	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST



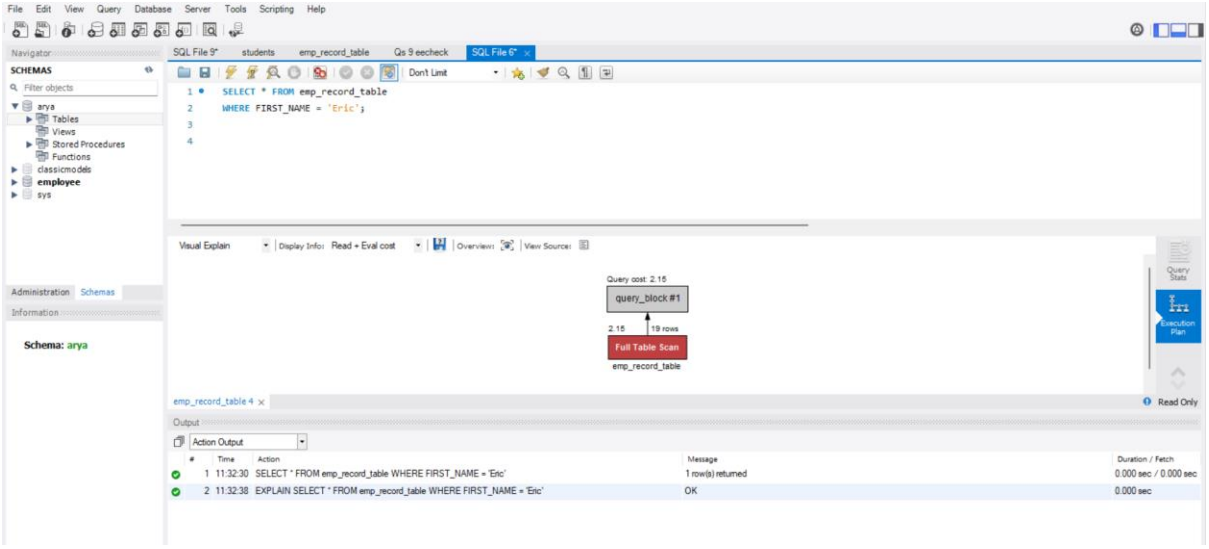
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

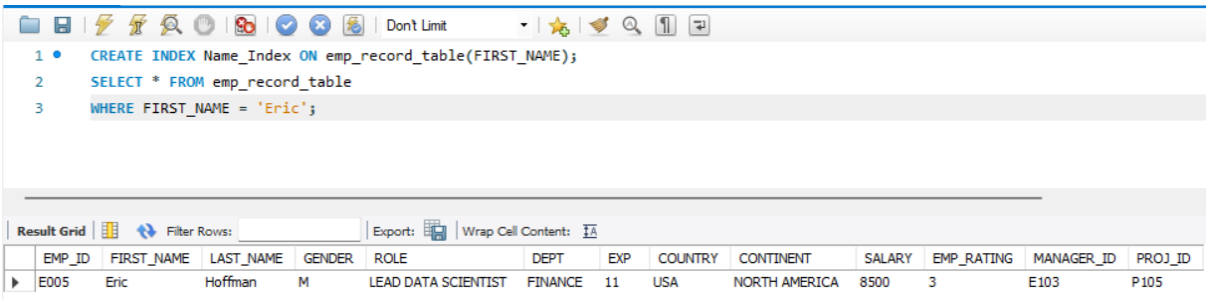
EMP_ID	FIRST_NAME	LAST_NAME	EXP	ROLE	STANDARD_ROLE
E001	Arthur	Black	20	PRESIDENT	NULL
E005	Eric	Hoffman	11	LEAD DATA SCIENTIST	LEAD DATA SCIENTIST
E010	William	Butler	12	LEAD DATA SCIENTIST	LEAD DATA SCIENTIST
E052	Dianna	Wilson	6	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E057	Dorothy	Wilson	9	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E083	Patrick	Voltz	15	MANAGER	MANAGER
E103	Emily	Grove	14	MANAGER	MANAGER
E204	Karene	Nowak	8	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E245	Nian	Zhen	6	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E260	Roy	Collins	7	SENIOR DATA SCIENTIST	SENIOR DATA SCIENTIST
E403	Steve	Hoffman	4	ASSOCIATE DATA SCIEN...	ASSOCIATE DATA SCIEN...
E428	Pete	Allen	14	MANAGER	MANAGER
E478	David	Smith	3	ASSOCIATE DATA SCIEN...	ASSOCIATE DATA SCIEN...
E505	Chad	Wilson	5	ASSOCIATE DATA SCIEN...	ASSOCIATE DATA SCIEN...
E532	Claire	Brennan	3	ASSOCIATE DATA SCIEN...	ASSOCIATE DATA SCIEN...
E583	Janet	Hale	14	MANAGER	MANAGER
E612	Tracy	Norris	13	MANAGER	MANAGER
E620	Katrina	Allen	2	JUNIOR DATA SCIENTIST	JUNIOR DATA SCIENTIST
E640	Jenifer	Jhones	1	JUNIOR DATA SCIENTIST	JUNIOR DATA SCIENTIST

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.

Code:

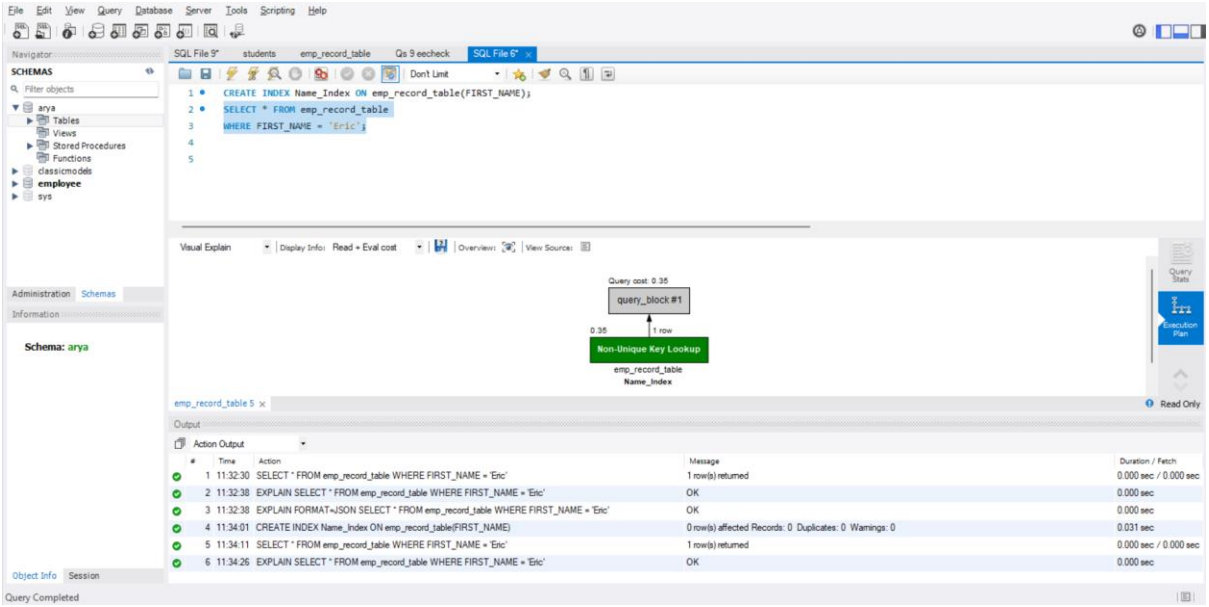
```
CREATE INDEX Name_Index ON emp_record_table(FIRST_NAME);

SELECT * FROM emp_record_table

WHERE FIRST_NAME = 'Eric';
```





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
E005	Eric	Hoffman	M	LEAD DATA SCIENTIST	FINANCE	11	USA	NORTH AMERICA	8500	3	E103	P105



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).

Code:

SELECT EMP_ID, CONCAT(FIRST_NAME,' ', LAST_NAME) AS "NAME", ROLE, SALARY,EMP_RATING, (EMP_RATING * 0.05 * SALARY) AS BONUS

FROM emp_record_table;

```
SELECT EMP_ID, CONCAT(FIRST_NAME,' ', LAST_NAME) AS "NAME", ROLE, SALARY,EMP_RATING, (EMP_RATING * 0.05 * SALARY) AS BONUS
FROM emp_record_table;
```

EMP_ID	NAME	ROLE	SALARY	EMP_RATING	BONUS
E001	Arthur Black	PRESIDENT	16500	5	4125.00
E005	Eric Hoffman	LEAD DATA SCIENTIST	8500	3	1275.00
E010	William Butler	LEAD DATA SCIENTIST	9000	2	900.00
E052	Dianna Wilson	SENIOR DATA SCIENTIST	5500	5	1375.00
E057	Dorothy Wilson	SENIOR DATA SCIENTIST	7700	1	385.00
E083	Patrick Voltz	MANAGER	9500	5	2375.00
E103	Emily Grove	MANAGER	10500	4	2100.00
E204	Karene Nowak	SENIOR DATA SCIENTIST	7500	5	1875.00
E245	Nian Zhen	SENIOR DATA SCIENTIST	6500	2	650.00
E260	Roy Collins	SENIOR DATA SCIE			1050.00
E403	Steve Hoffman	ASSOCIATE DATA SCIEN...	5000	3	750.00
E428	Pete Allen	MANAGER	11000	4	2200.00
E478	David Smith	ASSOCIATE DATA SCIEN...	4000	4	800.00
E505	Chad Wilson	ASSOCIATE DATA SCIEN...	5000	2	500.00
E532	Claire Brennan	ASSOCIATE DATA SCIEN...	4300	1	215.00
E583	Janet Hale	MANAGER	10000	2	1000.00
E612	Tracy Norris	MANAGER	8500	4	1700.00
E620	Katrina Allen	JUNIOR DATA SCIENTIST	3000	1	150.00
E640	Jenifer Jhones	JUNIOR DATA SCIENTIST	2800	4	560.00

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

Code:

SELECT DISTINCT COUNTRY, CONTINENT, round(AVG(SALARY) OVER(PARTITION BY CONTINENT,COUNTRY),2) AS AVG_SALARY

FROM emp_record_table;

```
SELECT DISTINCT COUNTRY, CONTINENT, round(AVG(SALARY) OVER(PARTITION BY CONTINENT,COUNTRY),2) AS AVG_SALARY
FROM emp_record_table;
```

COUNTRY	CONTINENT	AVG_SALARY
CHINA	ASIA	6500.00
INDIA	ASIA	6166.67
FRANCE	EUROPE	9000.00
GERMANY	EUROPE	7600.00
CANADA	NORTH AMERICA	7000.00
USA	NORTH AMERICA	9440.00
COLOMBIA	SOUTH AMERICA	5600.00