

# SQL STRUCTURED QUERY LANGUAGE



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**PROJECT TITLE :**

***Data\_Science\_Team,  
EMP\_RECORD\_TABLE***





# What is SQL? Why it is used?

SQL stands for Structured Query Language. SQL is used to communicate with a database. SQL lets us access and manipulate databases.



A Query in SQL is a request for Data or Information from a Database table or Combination of tables.

# DESCRIPTION

•SQLTECH is a startup that works in the Data Science field. SQLTECH has worked on fraud detection, market basket, self-driving cars, supply chain, algorithmic early detection of lung cancer, customer sentiment, and the drug discovery field. With the annual appraisal cycle around the corner, the HR department has asked you (Junior Database Administrator) to generate reports on employee details, their performance, and on the project that the employees have undertaken, to analyze the employee database and extract specific data based on different requirements.

## **OBJECTIVE :**

- To facilitate a better understanding, managers have provided ratings for each employee which will help the HR department to finalize the employee performance mapping. As a DBA, you should find the maximum salary of the employees and ensure that all jobs are meeting the organization's profile standard. You also need to calculate bonuses to find extra cost for expenses. This will raise the overall performance of the organization by ensuring that all required employees receive training

## **Dataset description:**

**emp\_record\_table:** It contains the information of all the employees.

- EMP\_ID – ID of the employee
- FIRST\_NAME – First name of the employee
- LAST\_NAME – Last name of the employee
- GENDER – Gender of the employee
- ROLE – Post of the employee
- DEPT – Field of the employee
- EXP – Years of experience the employee has
- COUNTRY – Country in which the employee is presently living
- CONTINENT – Continent in which the country is
- SALARY – Salary of the employee
- EMP\_RATING – Performance rating of the employee
- MANAGER\_ID – The manager under which the employee is assigned
- PROJ\_ID – The project on which the employee is working or has worked on

**Proj\_table:** It contains information about the projects.

- PROJECT\_ID – ID for the project
- PROJ\_Name – Name of the project
- DOMAIN – Field of the project
- START\_DATE – Day the project began
- CLOSURE\_DATE – Day the project was or will be completed
- DEV\_QTR – Quarter in which the project was scheduled
- STATUS – Status of the project currently



**Data\_science\_team:** It contains information about all the employees in the Data Science team.

- EMP\_ID – ID of the employee
- FIRST\_NAME – First name of the employee
- LAST\_NAME – Last name of the employee
- GENDER – Gender of the employee
- ROLE – Post of the employee
- DEPT – Field of the employee
- EXP – Years of experience the employee has
- COUNTRY – Country in which the employee is presently living
- CONTINENT – Continent in which the country is





## The task to be performed:

- 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.

## CODE

```
1 • use root;  
2 • create database employee;  
3 • use employee;  
4 • use root;  
5 • select * from data_science_team;
```

## OUT PUT

Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Content: 									
	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	ROLE	DEPT	EXP	COUNTRY	CONTINENT
▶	E260	Roy	Collins	M	SENIOR DATA SCIENTIST	RETAIL	7	INDIA	ASIA
	E245	Nian	Zhen	M	SENIOR DATA SCIENTIST	RETAIL	6	CHINA	ASIA
	E620	Katrina	Allen	F	JUNIOR DATA SCIENTIST	RETAIL	2	INDIA	ASIA
	E640	Jenifer	Jhones	F	JUNIOR DATA SCIENTIST	RETAIL	1	COLOMBIA	SOUTH AMERICA
	E403	Steve	Hoffman	M	ASSOCIATE DATA SCIENTIST	FINANCE	4	USA	NORTH AMERICA
	E204	Karene	Nowak	F	SENIOR DATA SCIENTIST	AUTOMOTIVE	8	GERMANY	EUROPE
	E057	Dorothy	Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	9	USA	NORTH AMERICA
	E010	William	Butler	M	LEAD DATA SCIENTIST	AUTOMOTIVE	12	FRANCE	EUROPE
	E478	David	Smith	M	ASSOCIATE DATA SCIENTIST	RETAIL	3	COLOMBIA	SOUTH AMERICA
	E005	Eric	Hoffman	M	LEAD DATA SCIENTIST	FINANCE	11	USA	NORTH AMERICA
	E052	Dianna	Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	6	CANADA	NORTH AMERICA
	E505	Chad	Wilson	M	ASSOCIATE DATA SCIENTIST	HEALTHCARE	5	CANADA	NORTH AMERICA
	E532	Claire	Brennan	F	ASSOCIATE DATA SCIENTIST	AUTOMOTIVE	3	GERMANY	EUROPE

## CODE

```
7 • Select * from proj_table;
```

## OUT PUT




Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Content: 											
	PROJ_ID	PROJ_NAME	DEPT	START_DATE	CLOSURE_DATE	DEV_QTR	STATUS	EMP_ID	FIRST_NAME	LAST_NAME	GENDER
▶	P103	Drug Discovery	HEALTHCARE	4/6/2021	6/20/2021	Q1	DONE	E260	Roy	Collins	M
	P105	Fraud Detection	FINANCE	4/11/2021	6/25/2021	Q1	DONE	E245	Nian	Zhen	M
	P208	Algorithmic Trading	FINANCE	1/16/2022	3/27/2022	Q4	YTS	E620	Katrina	Allen	F
	P109	Market Basket Analysis	RETAIL	4/12/2021	6/30/2021	Q1	DELAYED	E640	Jenifer	Jhones	F
	P204	Supply Chain Management	AUTOMOTIVE	7/15/2021	9/28/2021	Q2	WIP	E403	Steve	Hoffman	M
	P406	Customer Sentiment Analysis	RETAIL	7/9/2021	9/24/2021	Q2	WIP	E204	Karene	Nowak	F
	P302	Early Detection of Lung Cancer	HEALTHCARE	10/8/2021	12/18/2021	Q3	YTS	E057	Dorothy	Wilson	F
	P201	Self Driving Cars	AUTOMOTIVE	1/12/2022	3/30/2022	Q4	YTS	E010	William	Butler	M



# CODE

```
create database emp_record_table;  
use emp_record_table;  
select * from emp_record_table;
```

## OUT PUT

Result Grid    Filter Rows: <input type="text"/>   Export:  Wrap Cell Content: 												
	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	ROLE	DEPT	EXP	COUNTRY	CONTINENT	SALARY	EMP_RATING	MANAGER_ID
▶	E260	Roy	Collins	M	SENIOR DATA SCIENTIST	RETAIL	7	INDIA	ASIA	7000	3	E583
	E245	Nian	Zhen	M	SENIOR DATA SCIENTIST	RETAIL	6	CHINA	ASIA	6500	2	E583
	E620	Katrina	Allen	F	JUNIOR DATA SCIENTIST	RETAIL	2	INDIA	ASIA	3000	1	E612
	E640	Jenifer	Jhones	F	JUNIOR DATA SCIENTIST	RETAIL	1	COLOMBIA	SOUTH AMERICA	2800	4	E612
	E403	Steve	Hoffman	M	ASSOCIATE DATA SCIENTIST	FINANCE	4	USA	NORTH AMERICA	5000	3	E103
	E204	Karene	Nowak	F	SENIOR DATA SCIENTIST	AUTOMOTIVE	8	GERMANY	EUROPE	7500	5	E428
	E057	Dorothy	Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	9	USA	NORTH AMERICA	7700	1	E083
	E010	William	Butler	M	LEAD DATA SCIENTIST	AUTOMOTIVE	12	FRANCE	EUROPE	9000	2	E428
	E478	David	Smith	M	ASSOCIATE DATA SCIENTIST	RETAIL	3	COLOMBIA	SOUTH AMERICA	4000	4	E583
	E005	Eric	Hoffman	M	LEAD DATA SCIENTIST	FINANCE	11	USA	NORTH AMERICA	8500	3	E103
	E052	Dianna	Wilson	F	SENIOR DATA SCIENTIST	HEALTHCARE	6	CANADA	NORTH AMERICA	5500	5	E083
	E505	Chad	Wilson	M	ASSOCIATE DATA SCIENTIST	HEALTHCARE	5	CANADA	NORTH AMERICA	5000	2	E083
	E532	Claire	Brennan	F	ASSOCIATE DATA SCIENTIST	AUTOMOTIVE	3	GERMANY	EUROPE	4300	1	E428
	E083	Patrick	Voltz	M	MANAGER	HEALTHCARE	15	USA	NORTH AMERICA	9500	5	E001
	E583	Janet	Hale	F	MANAGER	RETAIL	14	COLOMBIA	SOUTH AMERICA	10000	2	E001
	E103	Emily	Grove	F	MANAGER	FINANCE	14	CANADA	NORTH AMERICA	10500	4	E001
	E612	Tracy	Norris	F	MANAGER	RETAIL	13	INDIA	ASIA	8500	4	E001

2 from the employee record table, and make a list of employees and details of their department. Write a query to fetch EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, and DEPARTMENT

## CODE

```
USE EMP_RECORD_TABLE;  
  
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT FROM EMP_RECORD_TABLE;
```

## OUT PUT

Result Grid					
				Filter Rows: <input type="text"/>	Export:    Wrap C
	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPT
▶	E260	Roy	Collins	M	RETAIL
	E245	Nian	Zhen	M	RETAIL
	E620	Katrina	Allen	F	RETAIL
	E640	Jenifer	Jhones	F	RETAIL
	E403	Steve	Hoffman	M	FINANCE
	E204	Karene	Nowak	F	AUTOMOTIVE
	E057	Dorothy	Wilson	F	HEALTHCARE
	E010	William	Butler	M	AUTOMOTIVE
	E478	David	Smith	M	RETAIL
	E005	Eric	Hoffman	M	FINANCE
	E052	Dianna	Wilson	F	HEALTHCARE
	E505	Chad	Wilson	M	HEALTHCARE
	E532	Claire	Brennan	F	AUTOMOTIVE
	E083	Patrick	Voltz	M	HEALTHCARE
	E583	Janet	Hale	F	RETAIL
	E103	Emily	Grove	F	FINANCE
	E612	Tracy	Norris	F	RETAIL
	E428	Pete	Allen	M	AUTOMOTIVE





**3** Write a query to fetch EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, DEPARTMENT, and EMP\_RATING if the EMP\_RATING is:

- less than two

### CODE

```
USE EMP_RECORD_TABLE;  
  
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING  
FROM EMP_RECORD_TABLE  
WHERE EMP_RATING < 2;
```

### OUT PUT

Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Contents: 						
	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPT	EMP_RATING
▶	E620	Katrina	Allen	F	RETAIL	1
	E057	Dorothy	Wilson	F	HEALTHCARE	1
	E532	Claire	Brennan	F	AUTOMOTIVE	1



- greater than four

## CODE

```
USE EMP_RECORD_TABLE;  
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING  
FROM EMP_RECORD_TABLE  
WHERE EMP_RATING > 4;
```

- OUT PUT

Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Content:						
	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	DEPT	EMP_RATING
▶	E204	Karene	Nowak	F	AUTOMOTIVE	5
	E052	Dianna	Wilson	F	HEALTHCARE	5
	E083	Patrick	Voltz	M	HEALTHCARE	5
	E001	Arthur	Black	M	ALL	5

- *between two and four*

## CODE

```
USE EMP_RECORD_TABLE;  
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, DEPT, EMP_RATING  
FROM EMP_RECORD_TABLE  
WHERE EMP_RATING BETWEEN 2 AND 4;
```

## OUT PUT

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



4 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  
FROM emp_record_table WHERE DEPT = 'Finance';
```

## OUT PUT

Result Grid			 Filter Rows: <input type="text"/>
	name		
▶	Steve Hoffman		
	Eric Hoffman		
	Emily Grove		

5 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, FIRST_NAME, LAST_NAME, GENDER, dept, role, exp, country, continent, salary, manager_id, EMP_RATING
FROM emp_record_table WHERE dept = 'Healthcare' union
SELECT EMP_ID, FIRST_NAME, LAST_NAME, GENDER, dept,role, exp, country, continent, salary, manager_id, EMP_RATING
FROM emp_record_table
WHERE dept = 'Finance';
```

## OUT PUT

	EMP_ID	FIRST_NAME	LAST_NAME	GENDER	dept	role	exp	country	continent	salary	manager_id	EMP_RATING
▶	E057	Dorothy	Wilson	F	HEALTHCARE	SENIOR DATA SCIENTIST	9	USA	NORTH AMERICA	7700	E083	1
	E052	Dianna	Wilson	F	HEALTHCARE	SENIOR DATA SCIENTIST	6	CANADA	NORTH AMERICA	5500	E083	5
	E505	Chad	Wilson	M	HEALTHCARE	ASSOCIATE DATA SCIENTIST	5	CANADA	NORTH AMERICA	5000	E083	2
	E083	Patrick	Voltz	M	HEALTHCARE	MANAGER	15	USA	NORTH AMERICA	9500	E001	5
	E403	Steve	Hoffman	M	FINANCE	ASSOCIATE DATA SCIENTIST	4	USA	NORTH AMERICA	5000	E103	3
	E005	Eric	Hoffman	M	FINANCE	LEAD DATA SCIENTIST	11	USA	NORTH AMERICA	8500	E103	3
	E103	Emily	Grove	F	FINANCE	MANAGER	14	CANADA	NORTH AMERICA	10500	E001	4

**6** 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_EMP_RATING
FROM emp_record_table order by dept;
```

**OUT PUT**

	EMP_ID	FIRST_NAME	LAST_NAME	ROLE	dept	EMP_RATING	MAX_EMP_RATING
	E010	William	Butler	LEAD DATA SCIENTIST	AUTOMOTIVE	2	5
	E532	Claire	Brennan	ASSOCIATE DATA SCIENTIST	AUTOMOTIVE	1	5
	E428	Pete	Allen	MANAGER	AUTOMOTIVE	4	5
	E403	Steve	Hoffman	ASSOCIATE DATA SCIENTIST	FINANCE	3	4
	E005	Eric	Hoffman	LEAD DATA SCIENTIST	FINANCE	3	4
	E103	Emily	Grove	MANAGER	FINANCE	4	4
	E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	1	5
	E052	Dianna	Wilson	SENIOR DATA SCIENTIST	HEALTHCARE	5	5
	E505	Chad	Wilson	ASSOCIATE DATA SCIENTIST	HEALTHCARE	2	5
	E083	Patrick	Voltz	MANAGER	HEALTHCARE	5	5
	E260	Roy	Collins	SENIOR DATA SCIENTIST	RETAIL	3	4
	E245	Nian	Zhen	SENIOR DATA SCIENTIST	RETAIL	2	4
	E620	Katrina	Allen	JUNIOR DATA SCIENTIST	RETAIL	1	4
	E640	Jenifer	Jhones	JUNIOR DATA SCIENTIST	RETAIL	4	4
	E478	David	Smith	ASSOCIATE DATA SCIENTIST	RETAIL	4	4
	E583	Janet	Hale	MANAGER	RETAIL	2	4
	E612	Tracy	Norris	MANAGER	RETAIL	4	4



7 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 role, MIN(salary) AS min_salary,  
MAX(salary) AS max_salary FROM emp_record_table GROUP BY role;
```

## OUT PUT

Result Grid	Filter Rows:	Export:
role	min_salary	max_salary
SENIOR DATA SCIENTIST	5500	7700
JUNIOR DATA SCIENTIST	2800	3000
ASSOCIATE DATA SCIENTIST	4000	5000
LEAD DATA SCIENTIST	8500	9000
MANAGER	8500	11000
PRESIDENT	16500	16500

8 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, role, exp,  
RANK() OVER (ORDER BY exp DESC) AS exp_rank  
FROM emp_record_table;
```

## OUT PUT

	emp_id	first_name	role	exp	exp_rank
▶	E001	Arthur	PRESIDENT	20	1
	E083	Patrick	MANAGER	15	2
	E583	Janet	MANAGER	14	3
	E103	Emily	MANAGER	14	3
	E428	Pete	MANAGER	14	3
	E612	Tracy	MANAGER	13	6
	E010	William	LEAD DATA SCIENTIST	12	7
	E005	Eric	LEAD DATA SCIENTIST	11	8
	E057	Dorothy	SENIOR DATA SCIENTIST	9	9
	E204	Karene	SENIOR DATA SCIENTIST	8	10
	E260	Roy	SENIOR DATA SCIENTIST	7	11
	E245	Nian	SENIOR DATA SCIENTIST	6	12
	E052	Dianna	SENIOR DATA SCIENTIST	6	12
	E505	Chad	ASSOCIATE DATA SCIEN...	5	14
	E403	Steve	ASSOCIATE DATA SCIEN...	4	15
	E478	David	ASSOCIATE DATA SCIEN...	3	16
	E532	Claire	ASSOCIATE DATA SCIEN...	3	16

9 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_salary AS
SELECT emp_id, first_name, last_name, role, country, salary
FROM emp_record_table WHERE salary > 6000;

Select * from emp_salary;
```

OUT PUT

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Content:	
	emp_id	first_name	last_name	role	country	salary		
▶	E260	Roy	Collins	SENIOR DATA SCIENTIST	INDIA	7000		
	E245	Nian	Zhen	SENIOR DATA SCIENTIST	CHINA	6500		
	E204	Karene	Nowak	SENIOR DATA SCIENTIST	GERMANY	7500		
	E057	Dorothy	Wilson	SENIOR DATA SCIENTIST	USA	7700		
	E010	William	Butler	LEAD DATA SCIENTIST	FRANCE	9000		
	E005	Eric	Hoffman	LEAD DATA SCIENTIST	USA	8500		
	E083	Patrick	Voltz	MANAGER	USA	9500		
	E583	Janet	Hale	MANAGER	COLOMBIA	10000		
	E103	Emily	Grove	MANAGER	CANADA	10500		
	E612	Tracy	Norris	MANAGER	INDIA	8500		

10 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
FROM (SELECT * FROM emp_record_table WHERE exp > 10) AS Exp10;
```

## OUT PUT

	EMP_ID	FIRST_NAME	LAST_NAME	ROLE
▶	E010	William	Butler	LEAD DATA SCIENTIST
	E005	Eric	Hoffman	LEAD DATA SCIENTIST
	E083	Patrick	Voltz	MANAGER
	E583	Janet	Hale	MANAGER
	E103	Emily	Grove	MANAGER
	E612	Tracy	Norris	MANAGER
	E428	Pete	Allen	MANAGER
	E001	Arthur	Black	PRESIDENT



11 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

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `employee`()  
  
BEGIN  
  
select * from emp_record_table where exp > 3;  
  
END  
  
call employee;
```

OUTPUT

	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
	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
	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
	E204	Karene	Nowak	F	SENIOR DATA SCIENTIST	AUTOMOTIVE	8	GERMANY	EUROPE	7500	5	E428	P204
	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
	E403	Steve	Hoffman	M	ASSOCIATE DATA SCIEN...	FINANCE	4	USA	NORTH AMERICA	5000	3	E103	P105
	E428	Pete	Allen	M	MANAGER	AUTOMOTIVE	14	GERMANY	EUROPE	11000	4	E001	NULL
	E505	Chad	Wilson	M	ASSOCIATE DATA SCIEN...	HEALTHCARE	5	CANADA	NORTH AMERICA	5000	2	E083	P103
	E583	Janet	Hale	F	MANAGER	RETAIL	14	COLOMBIA	SOUTH AMERICA	10000	2	E001	NULL
	E612	Tracy	Norris	F	MANAGER	RETAIL	13	INDIA	ASIA	8500	4	E001	NULL



**12** 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, FIRST_NAME, LAST_NAME, SALARY, EMP_RATING,  
(0.05 * SALARY * EMP_RATING) AS BONUS  
FROM emp_record_table;
```

## **OUT PUT**

EMP_ID	FIRST_NAME	LAST_NAME	SALARY	EMP_RATING	BONUS
E010	William	Butler	9000	2	900.00
E478	David	Smith	4000	4	800.00
E005	Eric	Hoffman	8500	3	1275.00
E052	Dianna	Wilson	5500	5	1375.00
E505	Chad	Wilson	5000	2	500.00
E532	Claire	Brennan	4300	1	215.00
E083	Patrick	Voltz	9500	5	2375.00
E583	Janet	Hale	10000	2	1000.00
E103	Emily	Grove	10500	4	2100.00
E612	Tracy	Norris	8500	4	1700.00
E428	Pete	Allen	11000	4	2200.00
E001	Arthur	Black	16500	5	4125.00

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

## CODE

```
SELECT continent, country,  
AVG(salary) AS average_salary FROM emp_record_table  
GROUP BY continent, country;
```

## OUT PUT

	continent	country	average_salary
▶	ASIA	INDIA	6166.6667
	ASIA	CHINA	6500.0000
	SOUTH AMERICA	COLOMBIA	5600.0000
	NORTH AMERICA	USA	9440.0000
	EUROPE	GERMANY	7600.0000
	EUROPE	FRANCE	9000.0000
	NORTH AMERICA	CANADA	7000.0000