

**Information System Management Lab
BCOM 307**

Assignment #25

Submitted by:

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Instructions for Students:

1. **All Questions are Compulsory.**
2. The student should attach proper cover page for each assignment clearly mentioning the Assignment No.
3. Each assignment should be prepared by the student individually with proper explanation and screenshots.
4. A4 size ruled sheets should be used for the assignment.
5. Assignment pages should be serially numbered at the bottom of page.

During online education mode, upload scanned copy of the complete assignment including cover page latest by due date.

Question No.	Question	CO No.
1	Display first 3 characters from the employee name column of the employees table.	CO2, CO3, CO4, CO5
2	Display all the distinct values of the column 'location'.	
3	Display the values of employee name column after removing spaces from the right.	
4	Display the values of employee name column after removing spaces from the left.	
5	Display the values of employee name column after replacing the letter 'A' with 'a'.	
6	Display all columns of the employee table in ascending order of employee names.	
7	Display all columns of the employee table in ascending order of employee names and descending order of department number.	

8	Show all employee names except Elon Musk and Ratan Tata.	CO2, CO3, CO4, CO5
9	Display the values where employee name ends with 'a'.	
10	Display the employee records of employees hired in April 2013.	

ASSIGNMENT 25 - STRING FUNCTIONS**Task 1 : Display first 3 characters from the employee name column of the employees table.**

This task can be completed using the SQL String Function **SUBSTRING()**. This function extracts some characters from a string, specified as one of its parameters, as follows :

```
Select SUBSTRING (string, start, length) from <tablename>;
```

The screenshot shows a SQL IDE window titled "ISM_Lab_Assignment_25-YashJain_BCom5A". The SQL editor contains the following code:

```
3
4 #displaying first 3 characters from name column
5 • select substring(Emp_Name,1,3) 'First 3 characters' from employees;
6
```

Below the editor is the "Result Grid" showing the output of the query. It has a search bar and buttons for "Filter Rows", "Export", and "Wrap Cell Content". The results are as follows:

#	First 3 character
1	Yas
2	Chi
3	San
4	Sud
5	Muk
6	Rat
7	Azi
8	Kun
9	Elo

Task 2: Display all the distinct values of the column 'location'.

This task can be completed using the **DISTINCT** Keyword.

The screenshot shows the same SQL IDE window. The SQL editor contains the following code:

```
6
7 #selecting distinct location values
8 • select distinct location from employees;
9
```

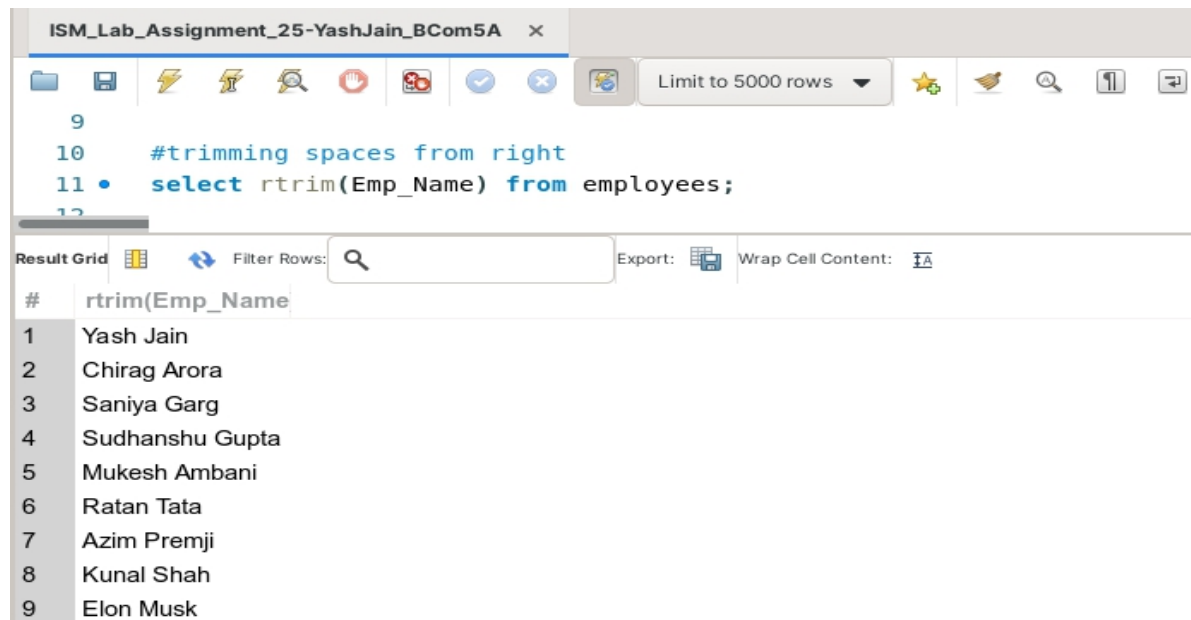
Below the editor is the "Result Grid" showing the output of the query. It has a search bar and buttons for "Filter Rows", "Export", and "Wrap Cell Content". The results are as follows:

#	location
1	Delhi
2	Bangalore
3	Kolkata
4	Gurugram
5	Chennai

Task 3: Display the values of employee name column after removing spaces from the right.

This task can be completed using the **RTRIM()** Aggregate function. This function returns a string after eliminating trailing spaces from the string. We have to specify the string as its arguments as follows :

```
Select RTRIM (string) from <tablename> ;
```



The screenshot shows a database query editor window titled "ISM_Lab_Assignment_25-YashJain_BCom5A". The query editor contains the following SQL code:

```
9
10 #trimming spaces from right
11 • select rtrim(Emp_Name) from employees;
12
```

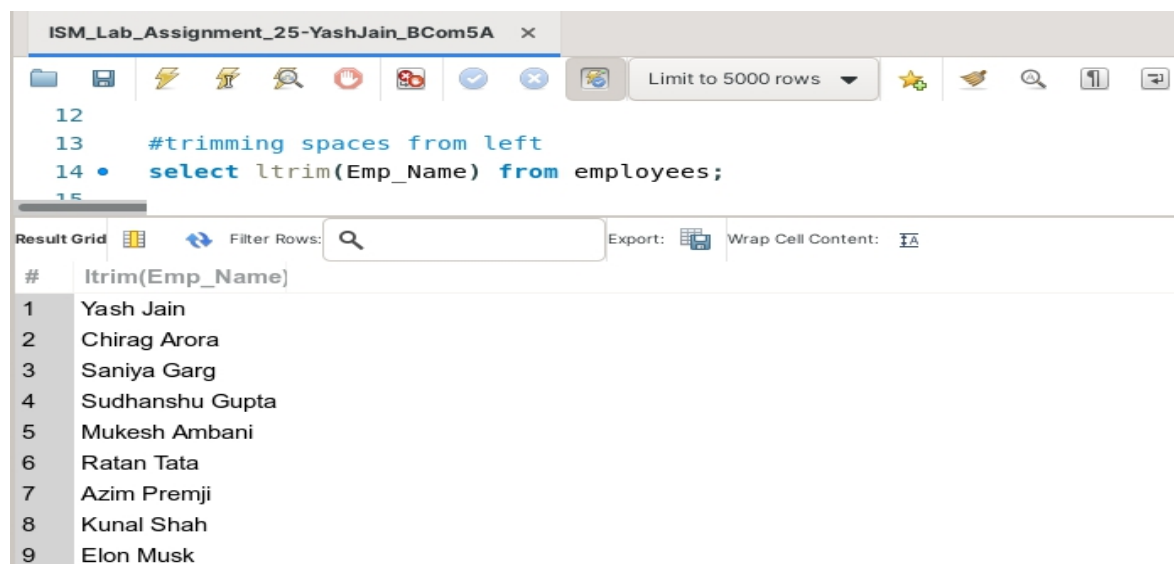
Below the query editor, the "Result Grid" is displayed, showing the results of the query. The table has two columns: a row number and the trimmed employee name.

#	rtrim(Emp_Name)
1	Yash Jain
2	Chirag Arora
3	Saniya Garg
4	Sudhanshu Gupta
5	Mukesh Ambani
6	Ratan Tata
7	Azim Premji
8	Kunal Shah
9	Elon Musk

Task 4: Display the values of employee name column after removing spaces from the left.

This task can be completed using the **LTRIM()** Aggregate function. This function returns a string after eliminating leading spaces from the string. We have to specify the string as its arguments as follows :

```
Select LTRIM (string) from <tablename> ;
```



The screenshot shows a database query editor window titled "ISM_Lab_Assignment_25-YashJain_BCom5A". The query editor contains the following SQL code:

```
12
13 #trimming spaces from left
14 • select ltrim(Emp_Name) from employees;
15
```

Below the query editor, the "Result Grid" is displayed, showing the results of the query. The table has two columns: a row number and the trimmed employee name.

#	ltrim(Emp_Name)
1	Yash Jain
2	Chirag Arora
3	Saniya Garg
4	Sudhanshu Gupta
5	Mukesh Ambani
6	Ratan Tata
7	Azim Premji
8	Kunal Shah
9	Elon Musk

Task 5: Display the values of employee name column after replacing the letter 'A' with 'a'.

This task can be completed using the **REPLACE()** Aggregate function. This function returns a string after replacing a character in the string with the one we specify in its arguments as follows ::

```
Select REPLACE (STRING,Old character,new character) from <table>;
```

The screenshot shows a database query editor window titled "ISM_Lab_Assignment_25-YashJain_BCom5A". The query is as follows:

```
15
16 #printing names after replacing words
17 • select replace(emp_name,'A','a') from employees;
18
```

Below the query, the "Result Grid" displays the output of the query. The first column is labeled "# replace(emp_name,'A','a')". The results are:

#	replace(emp_name,'A','a')
1	Yash Jain
2	Chirag arora
3	Saniya Garg
4	Sudhanshu Gupta
5	Mukesh ambani
6	Ratan Tata
7	azim Premji
8	Kunal Shah
9	Elon Musk

Task 6: Display all columns of the employee table in ascending order of employee names.

This task can be completed using the **ORDER BY** Clause.

The screenshot shows a database query editor window titled "ISM_Lab_Assignment_25-YashJain_BCom5A*". The query is as follows:

```
18
19 #sorting data by asc names
20 • select * from employees order by Emp_Name;
21
```

Below the query, the "Result Grid" displays the output of the query. The results are sorted by employee name in ascending order. The columns are: #, Emp_No, Emp_Name, Designation, Hire_Date, salary, commission, Dept_No, location. The results are:

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1600	Azim Premji	Analyst	1993-08-22	2448	240	10	Chennai
2	1100	Chirag Arora	Manager	2001-10-11	4000	400	10	Bangalore
3	2000	Elon Musk	President	1961-06-08	3060	300	20	Chennai
4	1700	Kunal Shah	Salesman	2013-04-15	4000	400	40	Gurugram
5	1400	Mukesh Ambani	Salesman	1989-11-01	4800	480	30	Kolkata
6	1500	Ratan Tata	Analyst	1937-11-27	1500	150	30	Gurugram
7	1200	Saniya Garg	Analyst	1994-03-05	3000	300	20	Kolkata
8	1300	Sudhanshu Gupta	Manager	1991-05-17	4500	450	20	Bangalore
9	1000	Yash Jain	Manager	2000-07-13	4590	450	10	Delhi
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 7: Display all columns of the employee table in ascending order of employee names and descending order of department number.

This task can be completed using the **ORDER BY** clause.

ISM_Lab_Assignment_25-YashJain_BCom5A x

Limit to 5000 rows

```

22
23 #sorting data using multiple sort
24 • select * from employees order by Emp_Name asc,Dept_No desc;
25

```

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1600	Azim Premji	Analyst	1993-08-22	2448	240	10	Chennai
2	1100	Chirag Arora	Manager	2001-10-11	4000	400	10	Bangalore
3	2000	Elon Musk	President	1961-06-08	3060	300	20	Chennai
4	1700	Kunal Shah	Salesman	2013-04-15	4000	400	40	Gurugram
5	1400	Mukesh Ambani	Salesman	1989-11-01	4800	480	30	Kolkata
6	1500	Ratan Tata	Analyst	1937-11-27	1500	150	30	Gurugram
7	1200	Saniya Garg	Analyst	1994-03-05	3000	300	20	Kolkata
8	1300	Sudhanshu Gupta	Manager	1991-05-17	4500	450	20	Bangalore
9	1000	Yash Jain	Manager	2000-07-13	4590	450	10	Delhi
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 8: Show all employee names except Elon Musk and Ratan Tata.

This task can be completed using the **NOT IN** clause.

ISM_Lab_Assignment_25-YashJain_BCom5A x

Limit to 5000 rows

```

25
26 #selecting values excluding given values
27 • select * from employees where emp_name not in ('Ratan Tata','Elon Musk');
28

```

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1000	Yash Jain	Manager	2000-07-13	4590	450	10	Delhi
2	1100	Chirag Arora	Manager	2001-10-11	4000	400	10	Bangalore
3	1200	Saniya Garg	Analyst	1994-03-05	3000	300	20	Kolkata
4	1300	Sudhanshu Gupta	Manager	1991-05-17	4500	450	20	Bangalore
5	1400	Mukesh Ambani	Salesman	1989-11-01	4800	480	30	Kolkata
6	1600	Azim Premji	Analyst	1993-08-22	2448	240	10	Chennai
7	1700	Kunal Shah	Salesman	2013-04-15	4000	400	40	Gurugram
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 9: Display the values where employee name ends with 'a'.

This task can be completed using the **LIKE** predicate, along with the % (percentage) symbol.

ISM_Lab_Assignment_25-YashJain_BCom5A x

Limit to 5000 rows

```

28
29 #selecting records with last character a in names
30 • select * from employees where emp_name like '%a';
31

```

Result Grid

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1100	Chirag Arora	Manager	2001-10-11	4000	400	10	Bangalore
2	1300	Sudhanshu Gupta	Manager	1991-05-17	4500	450	20	Bangalore
3	1500	Ratan Tata	Analyst	1937-11-27	1500	150	30	Gurugram
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 10: Display the employee records of employees hired in April 2013.

This task can be completed using the **BETWEEN** and **WHERE** Clauses.

ISM_Lab_Assignment_25-YashJain_BCom5A x

Limit to 5000 rows

```

31
32 #selecting records hired in Apr 2013.
33 • select * from employees where hire_date between '2013-04-01' and '2013-04-30';
34

```

Result Grid

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1700	Kunal Shah	Salesman	2013-04-15	4000	400	40	Gurugram
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL