

# 17CS2009 Database Systems Lab

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Ex. No:4

Date:22/8/2019

## Ex. No. 4 Set Operations

### Aim

To demonstrate the basic set operations.

### Description

There are four major set operations available union,union all,intersect,minus.

### Questions:

Create the following tables.

Employee table:

ename	city
Anil	Nagpur
Shankar	Bombay
Jaya	Chennai
Sunil	Bombay
Vijay	Delhi
Prakash	Calcutta
Ajay	Chennai

Emp\_company table

Ename	Cname	Salary	Jdate
Anil	Acc	1500	1-MAY-89
Shankar	Tata	2000	10-JUL-90
Jaya	CMC	1800	7-JUN-91
Sunil	CMC	1700	1-JAN-88
Vijay	TATA	5000	3-JAN-88
Prakash	TATA	3000	27-MAY-89
Ajay	Acc	8000	30-APR-95
Amol	Acc	1000	17-MAR-95
Kiran	Hyundai Mobis	30000	18-DEC-98

Company Table

cname	City
Acc	Chennai
TATA	Bombay
Acc	Nagpur

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CMC	Bombay
CMC	Chennai
TATA	Delhi

## Manager Table:

Ename	mname
Anil	Ajay
Shankar	Vijay
Jaya	-
Sunil	Jaya
Vijay	-
Prakash	Shankar
Ajay	-

## Emp\_shift table

ename	shift
Anil	A
Sunil	B
Vijay	B
Prakash	C
Kiran	E

### 1. Display the cities of the companies Acc and TATA.

```
SQL> select city from company_cs076 where cname like 'acc' union select city from company_cs076 where cname like 'tata';
CITY
-----
bombay
chennai
delhi
nagpur
```

### 2. Display the names of the city that is common to companies Acc and TATA.

```
SQL> select city from company_cs076 where cname like 'acc' intersect select city from company_cs076 where cname like 'tata';
no rows selected
```

### 3. Find the cities where Acc is located, but not TATA.

```
SQL> select city from company_cs076 where cname like 'acc' minus select city from company_cs076 where cname like 'tata';
CITY
-----
chennai
nagpur
```

### 4. Display the names of employees living in Nagpur, and working with company

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Acc.

```
SQL> select ename from employee_cs076 where city like 'nagpur' intersect  
select ename from emp_company_cs076 where cname like 'acc';
```

```
ENAME  
-----  
anil
```

5. Display the names of employees living in Nagpur, but not working in company Acc.

```
SQL> select ename from employee_cs076 where city like 'nagpur' minus  
select ename from emp_company_cs076 where cname like 'acc';|
```

no rows selected

6. List the names of the employees living in city Bombay and having salary >1500

```
SQL> select ename from employee_cs076 where city like 'bombay' intersect  
select ename from emp_company_cs076 where salary > 1500;|
```

```
ENAME  
-----  
shankar  
sunil
```

7. Display the names of the employees living in the city Chennai and working with the company CMC.

```
SQL> select ename from employee_cs076 where city like 'chennai' intersect select ename from emp_company_cs076 where cname like 'cmc';
```

```
ENAME  
-----  
sunil|
```

8. Display the names of the employees living in Nagpur, working in Acc, and having shift A.

```
SQL> select ename from employee_cs076 where city like 'nagpur' intersect  
select ename from emp_company_cs076 where cname like 'acc' intersect  
select ename from emp_shift_cs076 where shift like 'a';
```

```
ENAME  
-----  
anil
```

9. Display the names of employees who are living in Nagpur or Bombay.

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```
SQL> select ename from employee_cs076 where city like 'nagpur' union all
| select ename from employee_cs076 where city like 'bombay';

ENAME
-----
anil
shankar
sunil
```

**10. Display the employee name whose joining date is 18-DEC-98 and whose working shift is 'E'.**

```
SQL> select ename from emp_company_cs076 where jdate like '18-dec-98' intersect
select ename from emp_shift_cs076 where shift like 'e';|

no rows selected
```

**11. Use in operator to display the names of the employees living in the same city where Sunil is residing.**

```
SQL> select ename from employee_cs076 where city in (select city from employee_cs076 where ename like 'sunil');

ENAME
-----
sunil
shankar
```

**12. Use in operator to display the employees living in the city Bombay and having their company located in the city Delhi.**

```
SQL> select ename from emp_company_cs076 where cname in (select cname from company where city like 'delhi');

ENAME
-----
prakash
vijay
shankar
```

**13. Display the names of the employees having same city as Ajay [Hint: Use IN operator]**

```
SQL> select ename from employee_cs076 where city in (select city from employee_cs076 where ename like 'ajay');

ENAME
-----
ajay
jaya
```