

Ex.No.: 7	USING SET OPERATORS
Date:	

### Objectives

After the completion this exercise, the students should be able to do the following:

- Describe set operators
- Use a set operator to combine multiple queries into a single query
- Control the order of rows returned

The set operators combine the results of two or more component queries into one result.

Queries containing set operators are called *compound queries*.

Operator	Returns
UNION	All distinct rows selected by either query
UNION ALL	All rows selected by either query, including all duplicates
INTERSECT	All distinct rows selected by both queries
MINUS	All distinct rows that are selected by the first SELECT statement and not selected in the second SELECT statement

### The tables used in this lesson are:

- EMPLOYEES: Provides details regarding all current employees
- JOB\_HISTORY: Records the details of the start date and end date of the former job, and the job identification number and department when an employee switches jobs

### UNION Operator

#### Guidelines

- The number of columns and the data types of the columns being selected must be identical in all the SELECT statements used in the query. The names of the columns need not be identical.
- UNION operates over all of the columns being selected.
- NULL values are not ignored during duplicate checking.
- The IN operator has a higher precedence than the UNION operator.

1) Select dept-id  
from employees  
minus  
Select dept-id  
from employees  
where upper(job-id) = upper('ST. CLERK')  
order by 1;

2) Select country-id, country-name  
from countries

minus

Select country-id, country-name  
from countries c  
join locations l  
using (country-id)  
join dept-id  
using (location-id)  
where dept-id is not null;

3) select distinct job-id, dept-id  
from employees  
where dept-id = 10

union all

select distinct job-id, dept-id  
from employees  
where dept-id = 50

union all

select distinct job-id, dept-id  
from employees  
where dept-id = 20;

4) select employee-id, job-id  
from employees

Intersect

select employee-id, job-id  
from job-history  
order by 1;

5) select l\_name, dept-id, TO-char('NULL')  
from employees  
union

select TO-char('NULL'), dept-id, dept,  
from departments

Order by 1;