



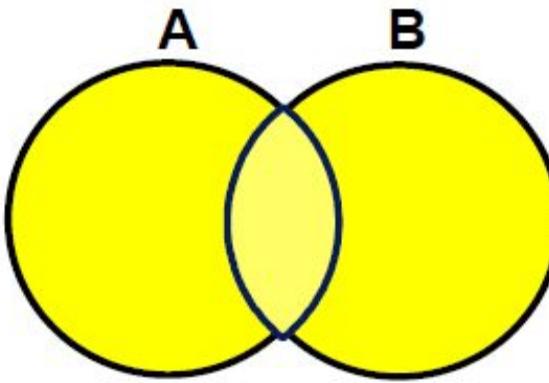
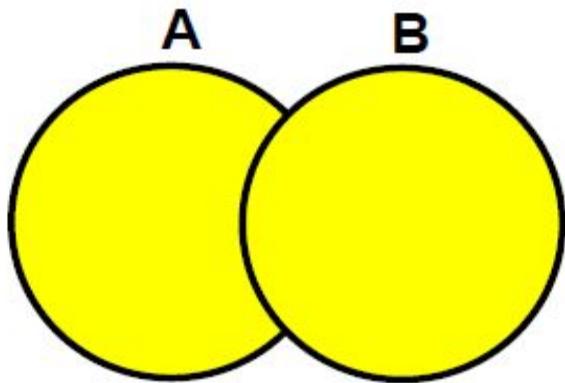
Chapter 4

Structure Query Language

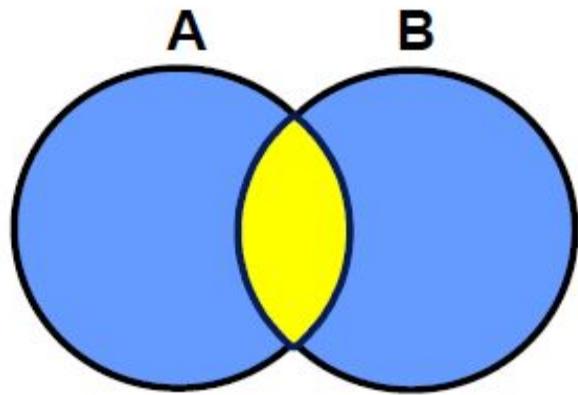
SQL - SET Operators

Department: Computer
Course: DBMS
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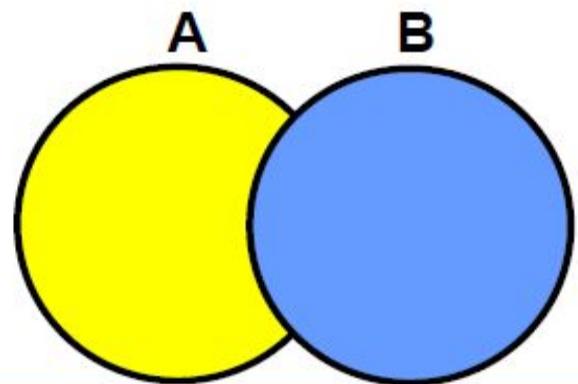
Set Operators



UNION/UNION ALL



INTERSECT



MINUS

salchan0204@gmail.com) have
use this Student Guide

```
SQL> create table Faculty  
2  (Empno number(2),  
3  Fname varchar2(10));
```

Table created.

```
SQL> desc Faculty  
Name Null? Type  
-----  
EMPNO NUMBER(2)  
FNAME VARCHAR2(10)
```

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> create table Student  
2  (Rollno number(2),  
3  Sname varchar2(10));
```

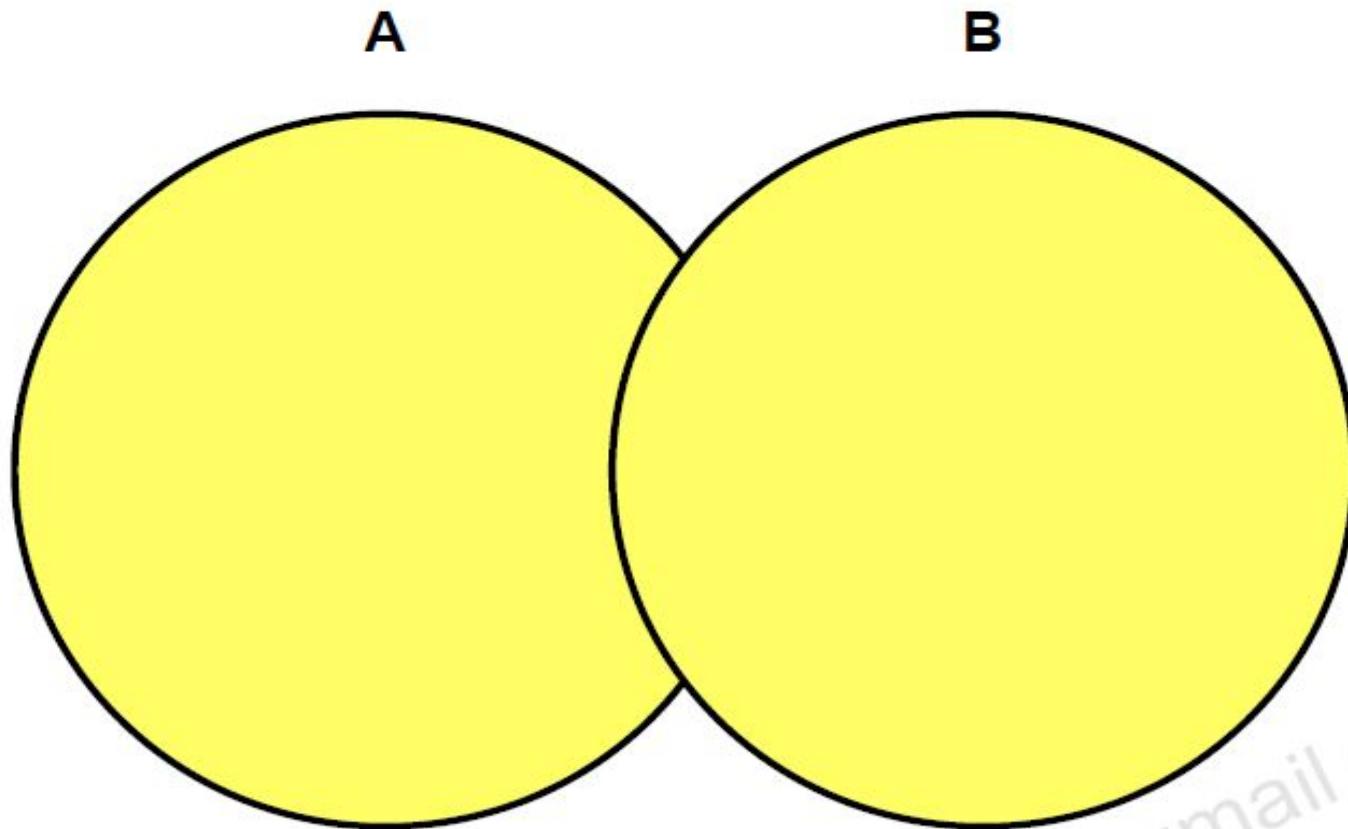
Table created.

```
SQL> desc Student  
Name Null? Type  
-----  
ROLLNO NUMBER(2)  
SNAME VARCHAR2(10)
```

```
SQL> select * from student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

UNION Operator



The UNION operator returns results from both queries after eliminating duplicates.

UNION Operator

- Display details of all the Faculties and Students
- Display each combination only once

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from faculty
  2 union
  3 select * from Student;
```

UNION Operator

- Display details of all the Faculties and Students
- Display each combination only once

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from student;
```

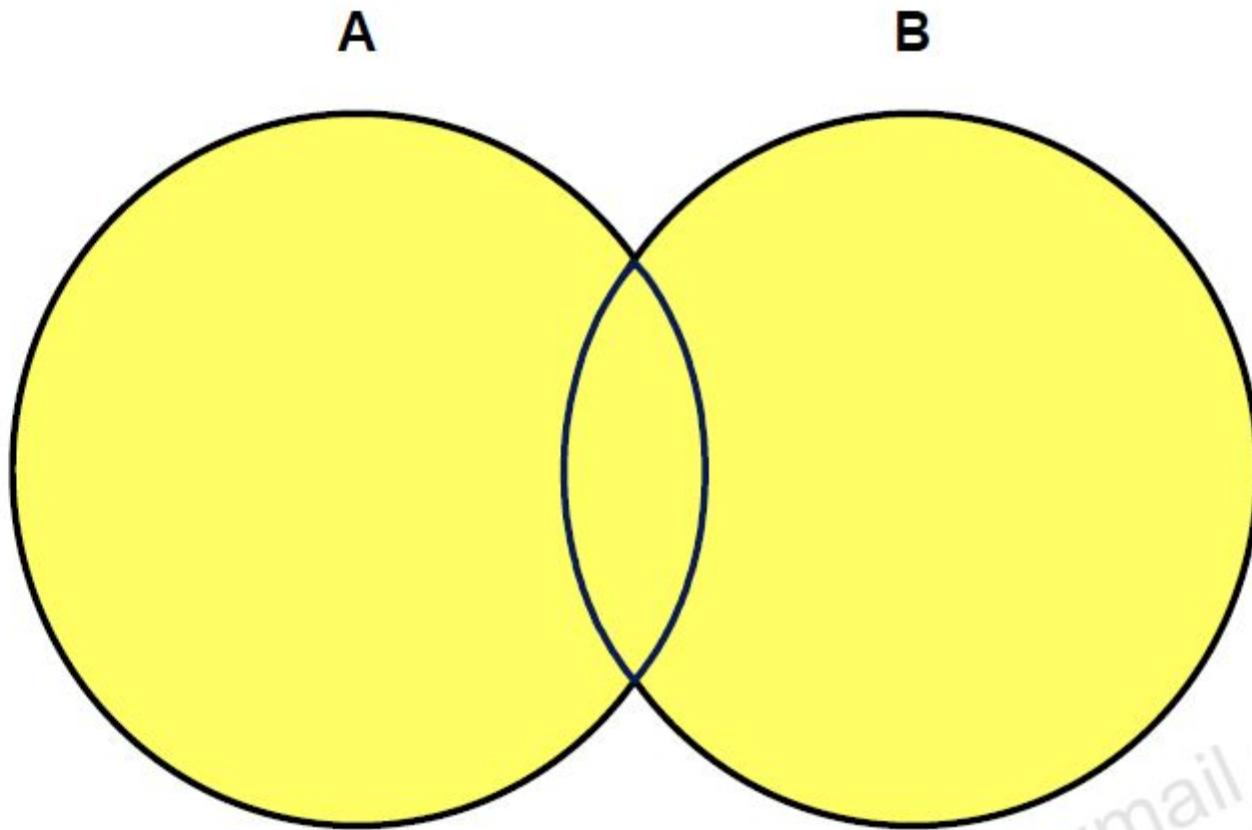
ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from faculty  
2 union  
3 select * from Student;
```

EMPNO	FNAME
1	Jhon
2	Sam
3	Sana
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
7 rows selected.
```

UNION ALL Operator



The UNION ALL operator returns results from both queries, including all duplications.

UNION ALL Operator

- Display details of all the Faculties and Students
- Display duplicate rows also

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from faculty
2 union all
3 select * from student;
```

UNION ALL Operator

- Display details of all the Faculties and Students
- Display duplicate rows also

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from student;
```

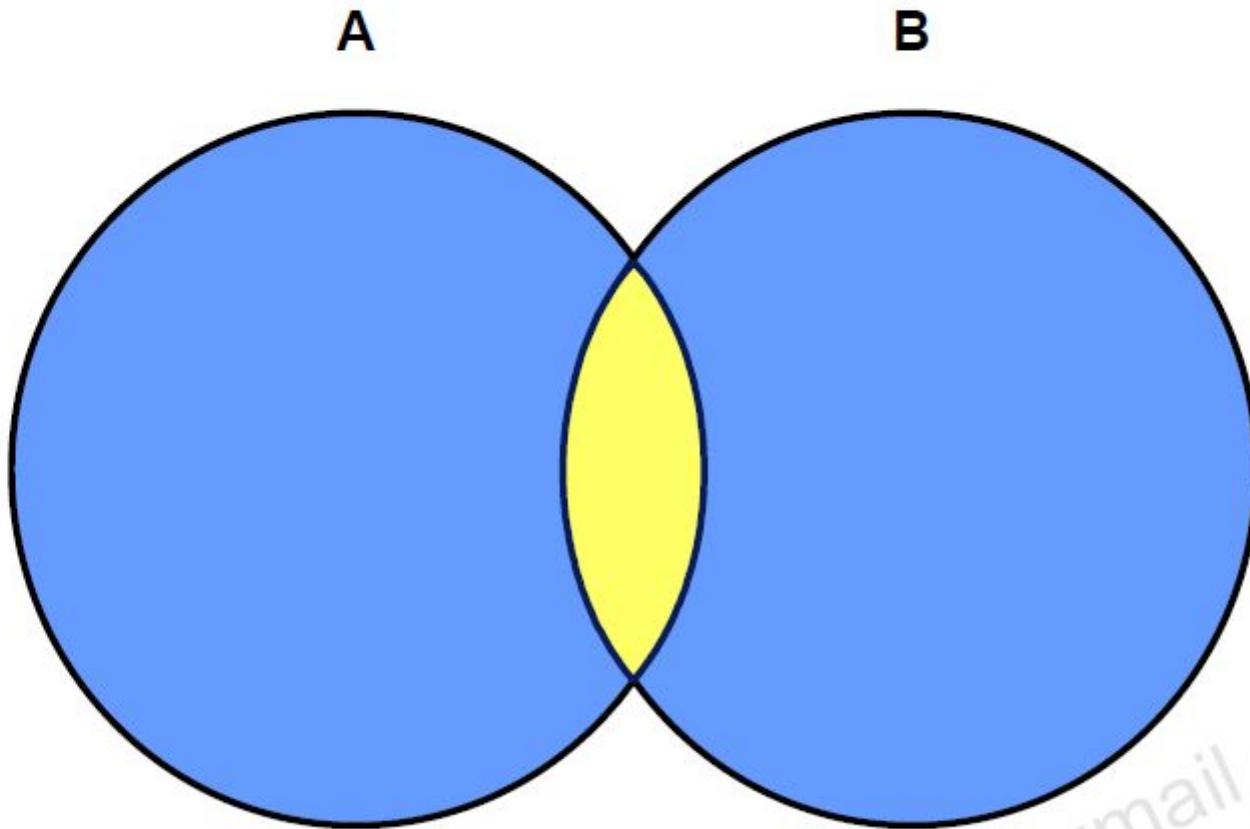
ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from faculty
2 union all
3 select * from student;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon
1	Jhon
2	Sam
3	Sana
83	Jhon

```
8 rows selected.
```

INTERSECT Operator



The **INTERSECT** operator returns rows that are common to both queries.

INTERSECT Operator

- Display details of all the person who is faculty as well as student.

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from Student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from Faculty  
2 intersect  
3 select * from Student;
```

INTERSECT Operator

- Display details of all the person who is faculty as well as student.

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

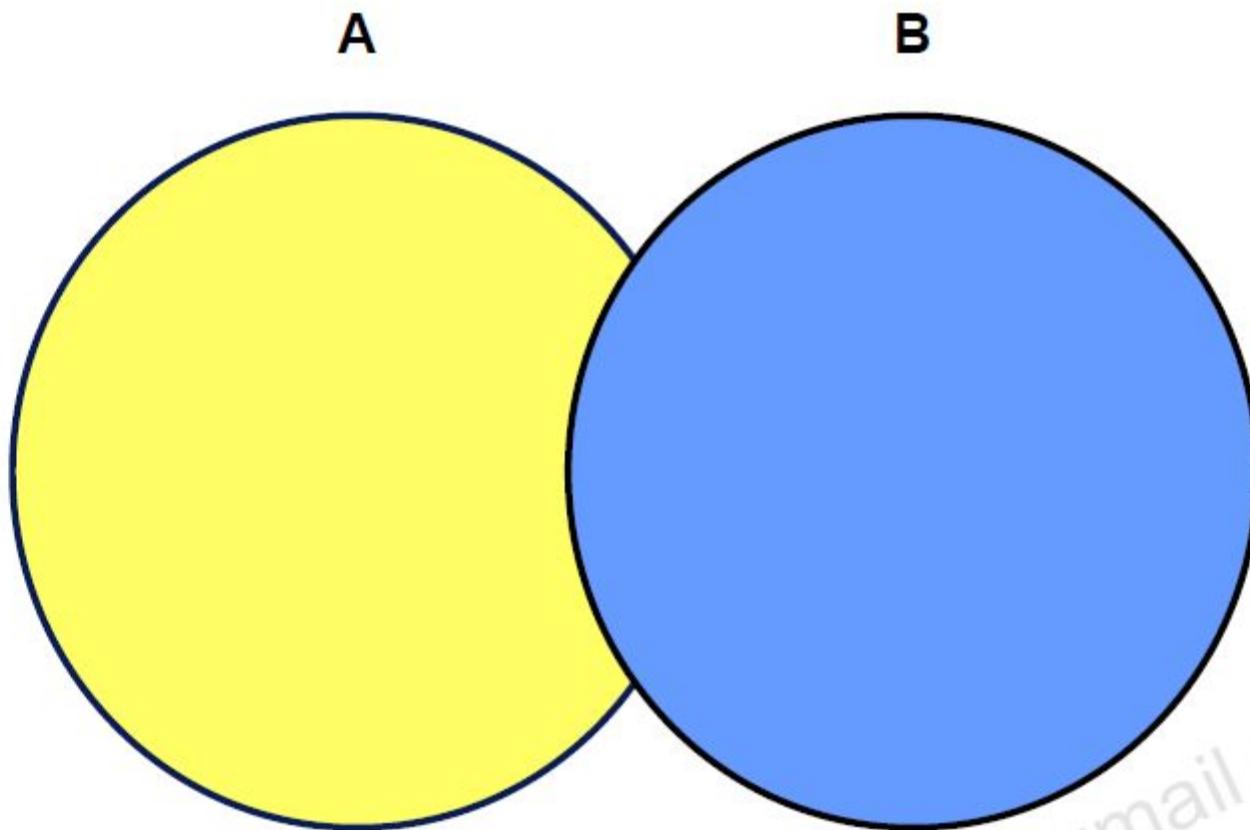
```
SQL> select * from Student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

```
SQL> select * from Faculty  
2 intersect  
3 select * from Student;
```

EMPNO	FNAME
83	Jhon

MINUS Operator



The **MINUS** operator returns rows in the first query that are not present in the second query.

MINUS Operator

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from Student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

- Display details of the person who is only faculty

- Display details of the person who is only student

MINUS Operator

```
SQL> select * from faculty;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari
83	Jhon

```
SQL> select * from Student;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana
83	Jhon

- Display details of the person who is only faculty

```
SQL> select * from Faculty  
2 minus  
3 select * from Student;
```

EMPNO	FNAME
80	Sana
81	Dipti
82	Kadambari

- Display details of the person who is only student

```
SQL> select * from Student  
2 minus  
3 select * from Faculty;
```

ROLLNO	SNAME
1	Jhon
2	Sam
3	Sana

Oracle Server and Set Operators

- Duplicate rows are automatically eliminated except in UNION ALL.
- Column names from the first query appear in the result.
- The output is sorted in ascending order by default except in UNION ALL.

What is wrong in this query?

```
SQL> select empno, fname from Faculty
  2 union
  3 select rollno from Student;
```

What is wrong in this query?

```
SQL> select empno, fname from Faculty
  2 union
  3 select rollno from Student;
select empno, fname from Faculty
*
ERROR at line 1:
ORA-01789: query block has incorrect number of result columns
```

What is wrong in this query?

```
SQL> select rollno from Student  
2 union  
3 select fname from Faculty;
```

What is wrong in this query?

```
SQL> select rollno from Student
  2 union
  3 select fname from Faculty;
select rollno from Student
  *
ERROR at line 1:
ORA-01790: expression must have same datatype as corresponding expression
```

Thank You