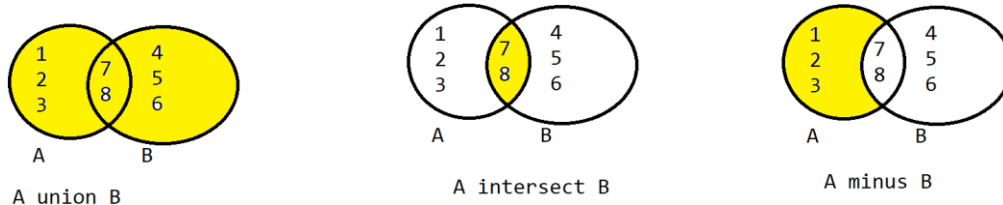


## Set operators

1. Union
  - a. All the queries should return same number of column
  - b. Corresponding columns data type should match
  - c. The column names will appear from the topmost query
2. Intersect--→ this doesnot mysql, but works well in oracle
3. minus--→ this doesnot mysql, but works well in oracle



1. to find the full join of the tables
2. combine multiple tables o/p in single table for display purpose

---to find list of all employees working in either Japan or india or US

```
select id,name,location,'India'
```

```
from emp_india
```

```
union
```

```
select id,name,location,'US' from emp_us
```

```
union
```

```
select id,name,location,'Japan' from emp_japan;
```

----top n analysis

The query marked in green will give you how many values are bigger that the number.

Hence if use corelated query then I will get 5 topmost value, replace 5 with n to get n topmost or bottom most values

```
select *
```

```
from emp m
```

```
where 5 > (select count(*) from (select distinct sal from emp) e
```

```
where e.sal > m.sal)
```

```
order by sal desc;
```

window function

Row_number()	It will number the row as 1,2,3,4.....	select empno,ename,sal,deptno,row_number() over() rn, -> row_number() over (partition by deptno order by sal desc) rn1 -> from emp;
Rank()	It will number the rows in each window as 1,2,3,4,... but if the value is same then the rank will be same, but if 2 values get same rank then in between values will be skipped	select empno,ename,sal,deptno,rank() over() rn, -> row_number() over (partition by deptno order by sal desc) rn1 -> from emp;
Dense_rank()	It will number the rows in each window as 1,2,3,4,... but if the value is same then the dense_rank will be same, but it will not skip in between values	select empno,ename,sal,deptno,row_number() over() rn, -> dense_rank() over (partition by deptno order by sal desc) rn1 -> from emp;
First_value(<column name>)	It will give you the first value in each window	Select empno,ename,sal,deptno,first_value(sal) over(partition by deptno) fv From emp;
First_value(<column name>)	It will give you the first value in each window	Select empno,ename,sal,deptno,last_value(sal) over(partition by deptno) fv From emp;
All aggregate functions are window functions	Over function will return value of sum function once for each row ,but if you use group by clause, then it will be returned once for each group	select empno,ename,sal,deptno,sum(sal) over(partition by deptno) from emp;
Lag(<column name>,n,<replace null>)	It will display nth previous value within window N and replace null are optional By default value of n is 1, To replace null value with 0 or some value add third parameter	select empno,ename,sal,deptno,lag(sal,2,0) over(partition by deptno) from emp;

Lag(<column name>,n,<replace null>)	It will display nth later value within window	select empno,ename,sal,deptno,lag(sal,2,0) over(partition by deptno) from emp;
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--- to find topmost 2 in every department

```
Select * from (select empno,ename,sal,deptno,
row_number() over (partition by deptno order by sal desc) rn1,
rank() over (partition by deptno order by sal desc) rnk1,
dense_rank() over (partition by deptno order by sal desc) drnk1
from emp) e
```

Where e.rn1<=2