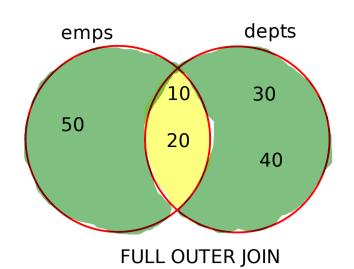
```
deptno, max(sal) GROUP BY deptno
 -- display deptwise total sal for dept 10 and 20
                                    deptwise,jobwise
     10 -> 4000
                                    10 -> Analyst -> 1000
     20 -> 5000
                                        salesman -> 2000
                                        manager -> 2500
                                        NULL -> 5500
     NULL -> 9000
                                    20 ->
                                    3->
                                    NULL -> ......
Joins
                                         INT -> 4 bytes
                                                          VARCHAR(10)
                       1
                           Anil
                                         10 Accounting
                                                         10 char
                                                                                 30 chars
                       2
                                         20 President
                                                         9 char
                           Mukesh
                                                                                 9 chars
                       3
                                         30 Manager
                           Anant
                                                         7 char
                                                                                 28 chars
                       4
                                         10
                       5
                                         30
                                                                                 67 chars
                       6
                                         10
                       7
                                         30
                       8
                                         30
                                                                                 32 bytes for INt deptno
                        dept
                        10 Accounting
                        20 President
                                                                 Noramalization
                        30 Manager
   List<Employee> empList; 5 emps
   List<Dept> deptList; 4 depts
   for(Employee e:empList)
   {
       for(Dept d:deptList){
            if(e.deptno==d.deptno) // inner join
            sysout(e.name+"|"+e.deptno+"|"+d.dname);
// sysout(e.name+"|"+d.deptno+"|"+d.dname);
        }
   }
                      depts
                                                                                     emps
                                                                                                        depts
   emps
                                                               depts
                                           emps
                                                                                                10
                                                                                                         30
              10
                       30
                                                       10
                                                                30
                                                                                     50
   50
                                           50
                                                                                                20
              20
                                                       20
                                                                                                          40
                        40
                                                                40
                                                                                           Right Join
         Inner Join
                                                  Left Join
```

Group Function -> max(),min(),avg(),count(),sum()



Not Supported in Mysql

FULLJOIN = LEFT DATA + INTERSECTION + RIGHT DATA

emps e(employees)

deptno empno ename mgr 10 4 1 **Amit** 2 3 Rahul 10 3 Nilesh 20 4 5 Nitin 50 4 5 Sarang 50 **NULL**

emps m(managers)

empno	ename	deptno	mgr
1	Amit	10	4
2	Rahul	10	3
3	Nilesh	20	4
4	Nitin	50	5
5	Sarang	50	NULL

e.ename,m.ename FROM emps e INNER JOIN emps m ON e.mgr=m.empno

clauses

SELECT col1,col2,..... FROM table1 JOIN table2 ON t1.x=t2.x WHERE condition GROUP BY col1,col2,.... HAVING condition ORDER BY col1,col2,... LIMIT n