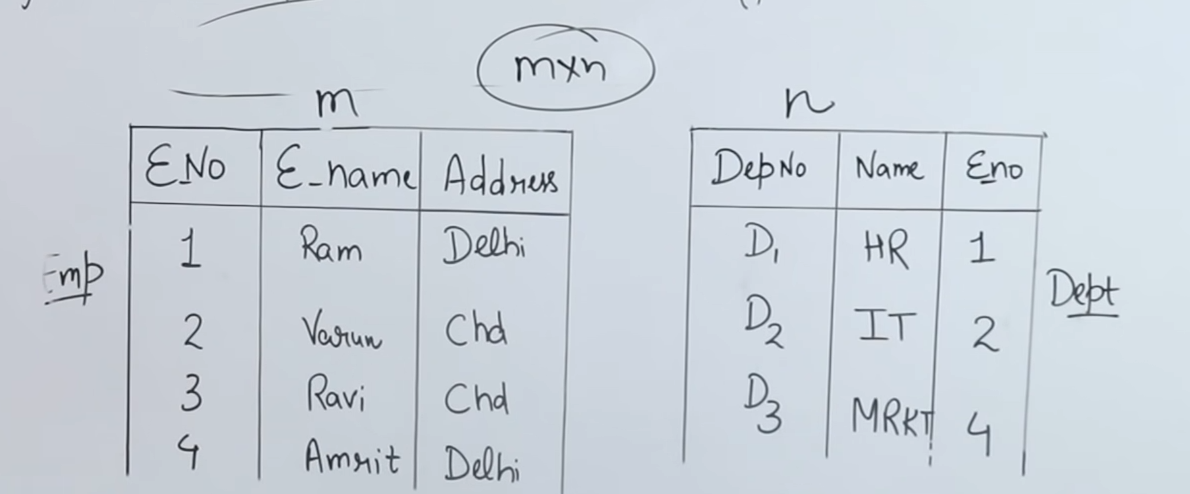
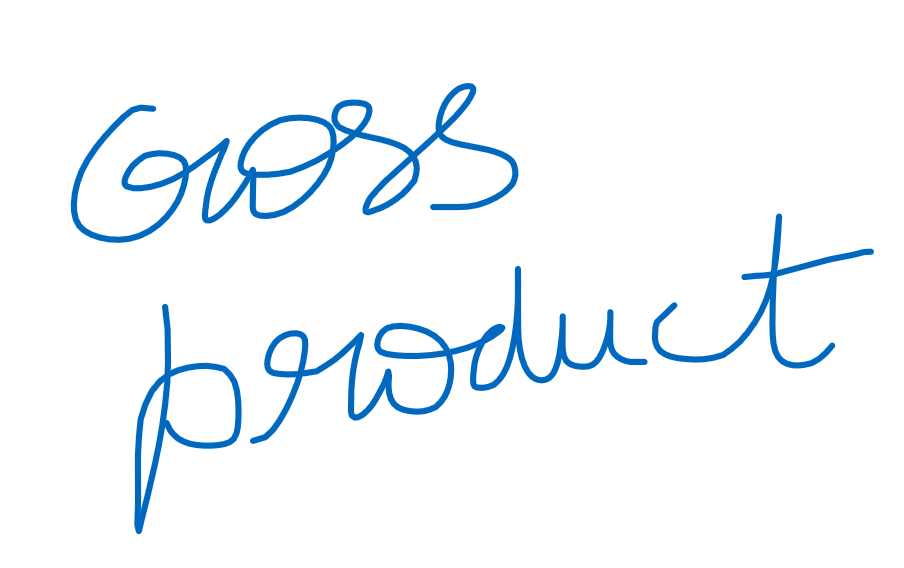
Joints 🡪 Cross Product + Condition

Find the employ name who is working in a department ???

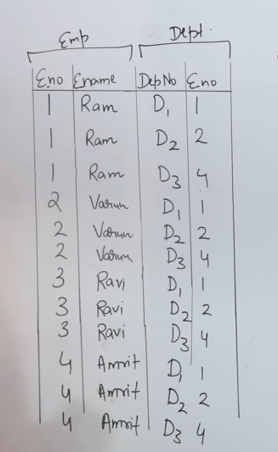
  
select e-name from **Emp, Dept** where **Emp.e-no = Dept.e-no**

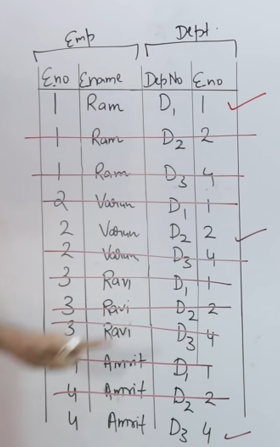




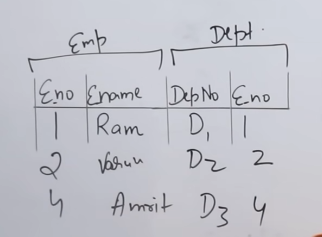


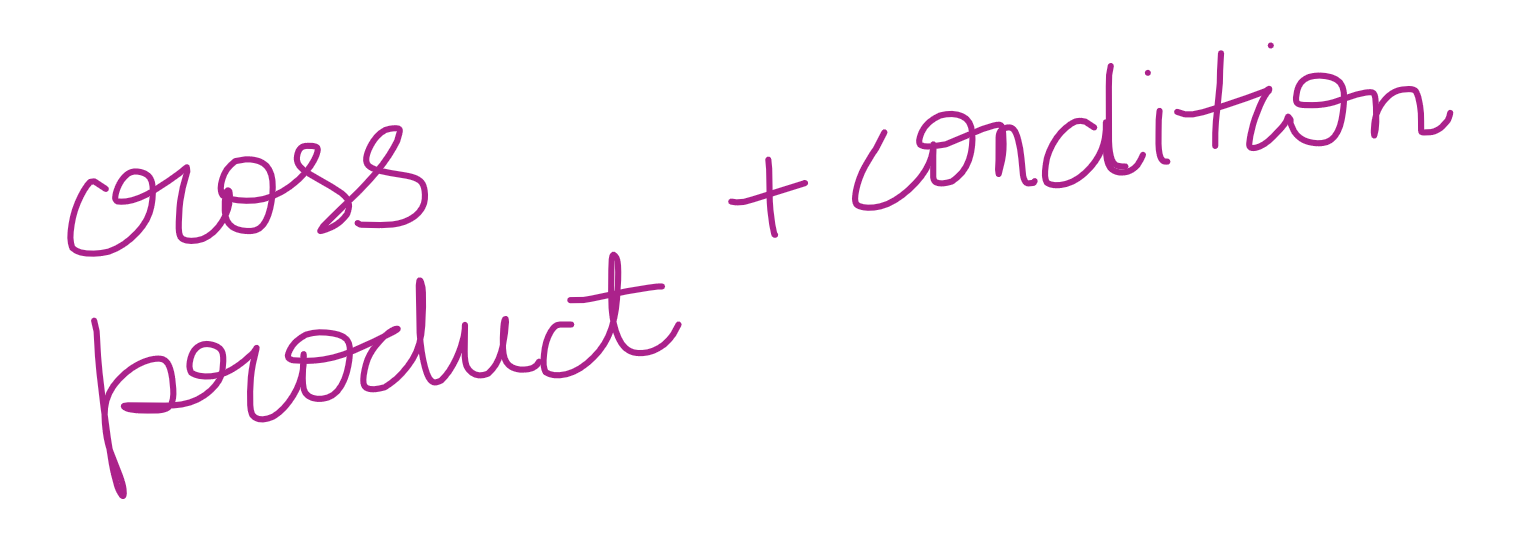
**Emp, Dept** (Cross product)





After merging from a cross product, only 3 rows will be available.

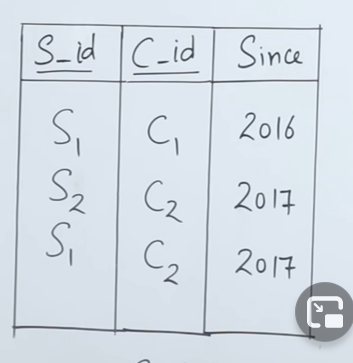
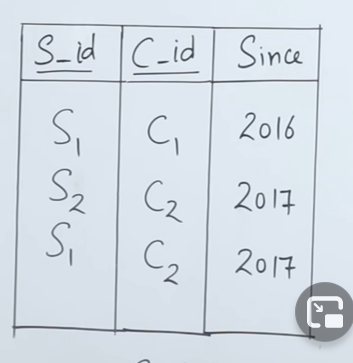


Exact query to retrieve the data using joints   
**select e-name from Emp Natural Join Dept** 



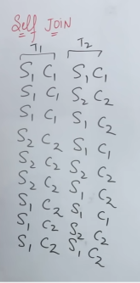
**Self Join**

A **self join** is a **join** in which a table is joined with itself (which is also called Unary relationships), especially when the table has a FOREIGN KEY which references its own PRIMARY KEY.

   
 T1 T2

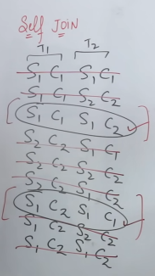
Creating the aliases of study table as T1 and T2.

Select \_\_\_\_ from Study as T1, Study as T2.





Condition 🡪 T1.sid = T2.sid and T1.cid <> T2.cid



After the solving the condition, only 2 rows are left behind.  
<> means Not equal to .

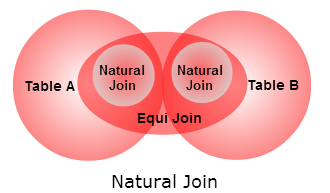
2 sid are available, among that choose any one tables sid (i.e T1’s sid or T2’s sid)

Final query,  
**Select T1.sid from Study as T1, Study as T2 where  
T1.sid = T2.sid and T1.cid <> T2.cid**

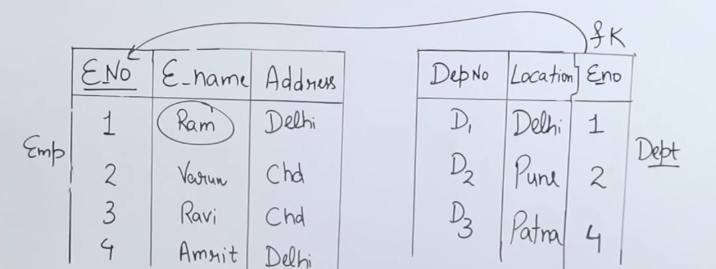
**Final output 🡪 S1**

**Equi Join**

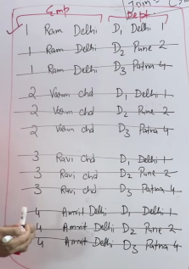
Every natural join is a equi join but every equi join is not a natural join



Natural join must have same attribute in both the table.  
Equi join can have same/different attribute in both the table.



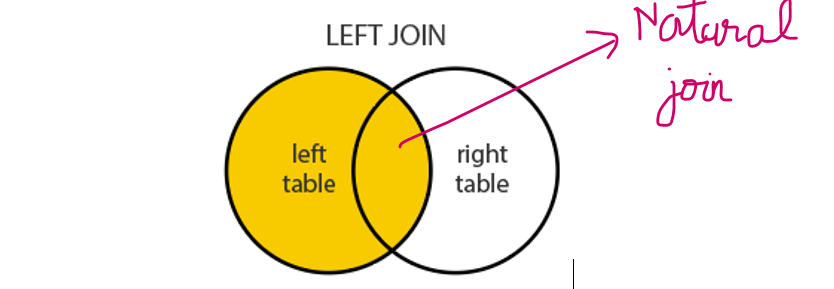
Emp, Dept 🡪 Cross product



**Select e\_name from Emp, Dept where   
 Emp.e\_no = Dept.e\_no** (natural join/equi join) **and Emp.address = Dept.location** (equi join and not natural join)

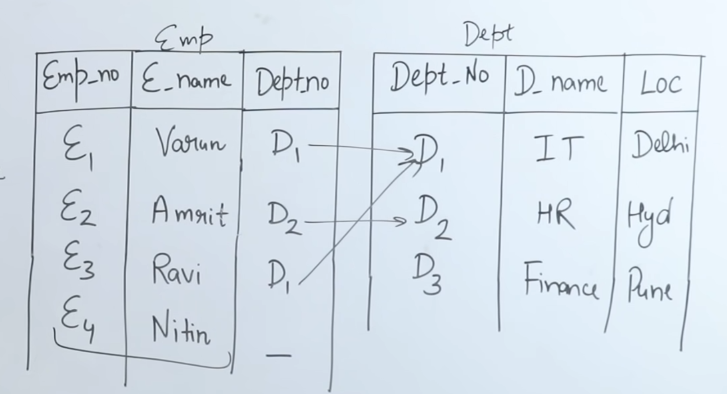
**Final output 🡪 Ram**

**Left Outer Join**

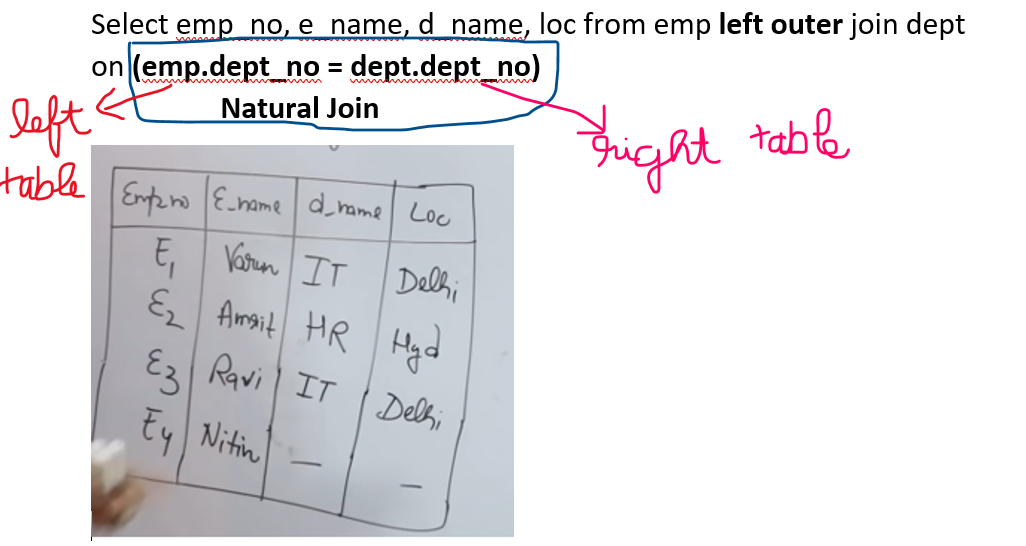




It gives the matching rows(natural join) and the rows which are in the left table but not in the right table.

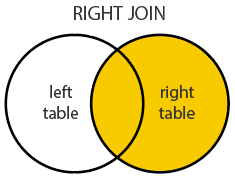


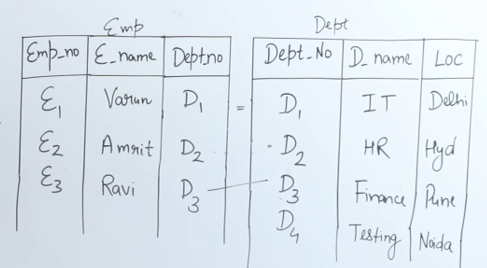


  
E4 is not having natural join but, it is in left table.

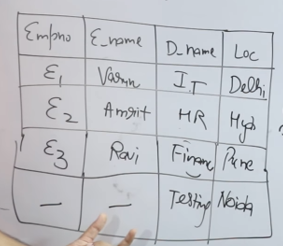


**Right Outer Join**



It gives the matching rows(natural join) and the rows which are in the right table but not in the left table.  


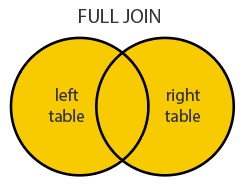


Select emp\_no, e\_name, d\_name, loc from emp **right outer join** dept on **(emp.dept\_no = dept.dept\_no)**   




D4 is not a common attribute (natural join), but the D4 is present in the right table

**Right Outer Join**



Union of both left outer join and right outer join.