

Types Of Joins

1-Cross Join
Cartesian Product

2-Inner Join Pk=FK
Equi Join

3-Outer Join
-Left outer join 3 rows
-Right Outer Join 3 rows
-Full Outer Join 4 rows

4-Self Join

select sname,dname
from student s right join
department d
on d.deptid = s.did

sname	dname
amr	SD
khaled	.Net
null	Java

right outer join

sname	dname
amr	SD
khaled	.Net
ahmed	null
null	Java

full outer join

Sid	StName	Did
1	amr	1
2	khaled	2
3	ahmed	Null

DeptID	Dname
1	SD
2	.Net
3	Java

select sname,dname
from student s full join department d
on d.deptid=s.did

Self Join

select Emp.ename as EmpName ,Super.ename
as SupName
from Employee Emp, Employee Super
where Super.eid=Emp.superID

eid	ename	super
1	amr	Null
2	reem	1
3	hana	1
4	ali	2

Employee

Parent.Pk=Child.FK

Ename	superName
reem	amr
hana	amr
ali	reem

eid	ename	super
1	amr	Null
2	reem	1
3	hana	1
4	ali	2

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DB Constraints

DB Integrity

- Domain Integrity
 - ranges of values
 - 1) Data type
 - 2) Default
 - 3) Not Null
 - 4) Check constraints
- Entity Integrity
 - Uniqueness
 - 1) Primary key
 - 2) Unique
 - allow one null value

Referential key
Ensuring Relationship
1) Foreign Key