

Datatype

Like

Joins

Built in function

Numeric Datatype

int
decimal
money

date

char(100)
varchar(100)
ncahr
nvarchar(50)

Like

`select * from employee
where fname like '___'`

`select * from employee
where fname like '___a'`

`select * from employee
where fname like 'A___'`

`SELECT * FROM EMPLOYEE
where fname like 'A%'`

`SELECT * FROM EMPLOYEE
where fname like 'a%a'`

`SELECT * FROM EMPLOYEE
where fname like '%al%`

`SELECT * FROM EMPLOYEE
where fname like '%al'`

`SELECT * FROM EMPLOYEE
where fname like '[a-z]%al'`

`SELECT * FROM EMPLOYEE
where fname like '[0-9]%al'`

`SELECT * FROM EMPLOYEE
where fname like '[a-z] %[0-3]'`

`select * from employee
where fname not like '[a-b][a-z]%'`

`select * from employee
where fname not like '%al%`

_ one character
% ay haga
[a-e]
[0-9]

`select * from employee
where fname like 'al_u_z%' and city like 'al%'`

id	Name	City
1	Ahmed	Arish
2	Mohamed	Alex
3	Ali	Cairo
4	Ibrahim	Alex
5	Maayada	mansora
6	Mostafa	Arish
7	Saaed	Cairo

Join

Cross Join

Emp

Id	fName	Dno
1	Ali	10
2	Ahmed	10
3	Asmaa	20
4	ALAA	20
5	May	NULL

Dept

Dnam	Dno
ui	10
sd	20
art	30
Cyber	40

Inner Join

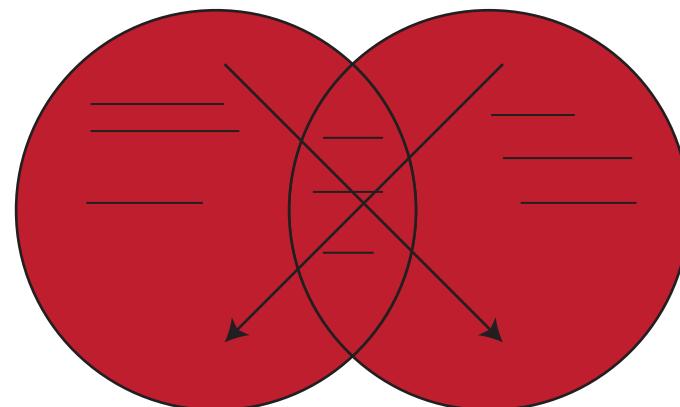
Outer Join

- left outer
- right outer
- full outer

Self Join

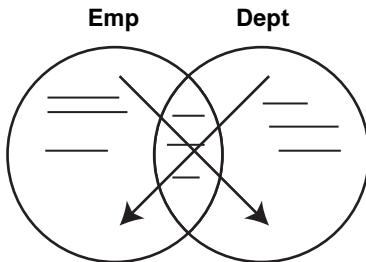
Cross Jois

Select fName, Dnam from Emp Cross join Dept



Fname	Name
Ali	ui
Ahmed	ui
Asmaa	ui
ALAA	ui
May	ui
Ali	sd
Ahmed	sd
Asmaa	sd
ALAA	sd
May	sd
Ali	art
Ahmed	art
Asmaa	art
ALAA	art
May	

Cross Join

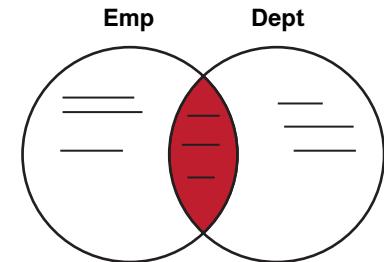


Fname	Name
Ali	ui
Ahmed	ui
Asmaa	ui
ALAA	ui
May	ui
Ali	sd
Ahmed	sd
Asmaa	sd
ALAA	sd
May	sd
Ali	art
Ahmed	art
Asmaa	art
ALAA	art
May	

Emp				
Id	fName	Dno	Dnam	Dno
1	Ali	10	ui	10
2	Ahmed	10	sd	20
3	Asmaa	20	art	30
4	ALAA	20	Cyber	40
5	May	NULL		

Inner Join

وصل عن طريقها للبيانات الى داخلة فنا لريليشن من الجدولين



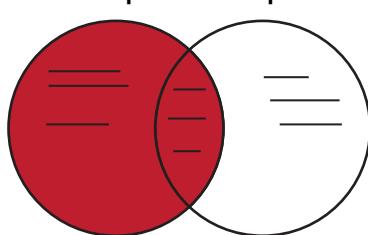
Select fname, Dnam from Emp

inner join Dept
on Emp.Dno = Dept.Dno

Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

Outer Join

Left Outer Join



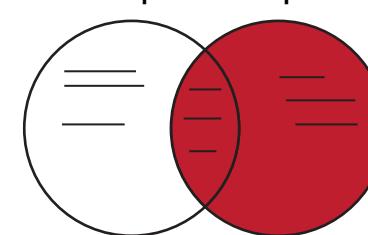
Emp				
Id	fName	Dno	Dnam	Dno
1	Ali	10	ui	10
2	Ahmed	10	sd	20
3	Asmaa	20	art	30
4	ALAA	20	Cyber	40
5	May	NULL		

وصل عن طريقها للبيانات الـ Maches مع ما تبقى من جدول الـ Left

Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd
May	Null

Select fname, dnam from Emp
left outer join Dept
on Emp.Dno = Dept.Dno

Right Outer Join



وصل عن طريقها للبيانات الـ Maches مع ما تبقى من جدول الـ Right

Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd
Null	Art
Null	Cyber

Select fname, dname from Emp
right outer Join Dept
on Emp.Dno = Dept.Dno

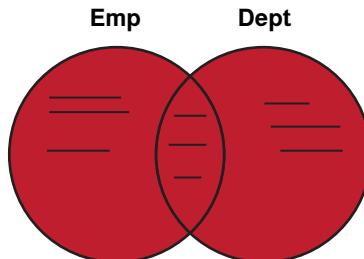
Full Outer Join

بوصل عن طريقها للبيانات الـ **Matches** مع ما تبقى من جدول الـ **Right** وما تبقى من الـ **Left**

Select fname, Dname from Emp

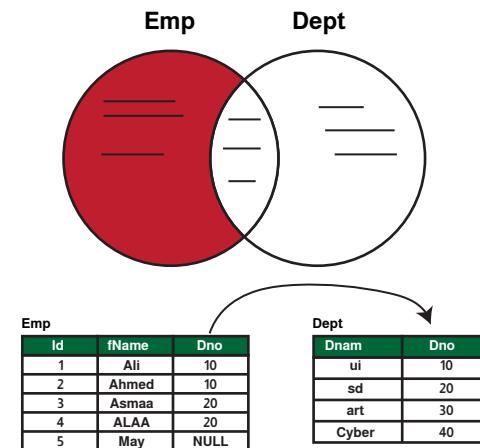
Full Outer Join Dept

on Emp.Dno = Dept.Dno



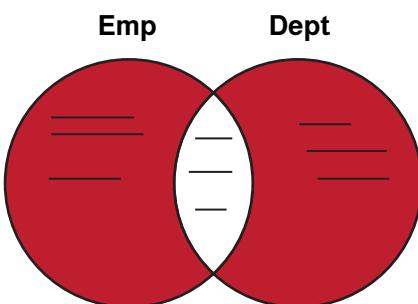
Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

Null	Art
Null	Cyber
May	Null



Select fname from employee

where dno is null



Select fname , dname from Employee as e

full outer join Department as d

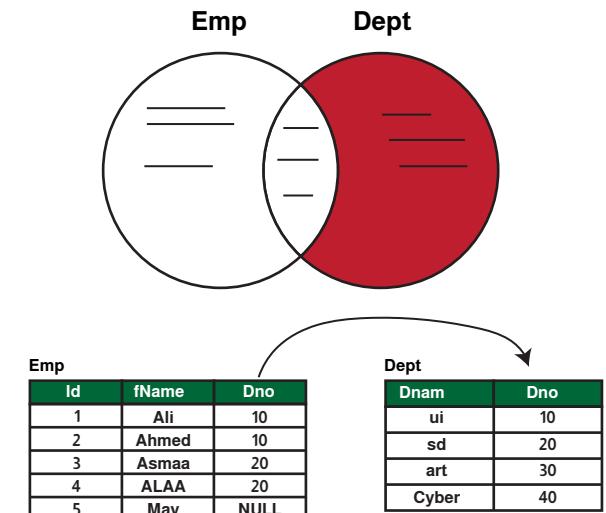
on e.Dno = d.Dno

where Dname is null and fname is null

May Null

Null Art

Null Cyber



Select Dnam from Emp

right outer join Department

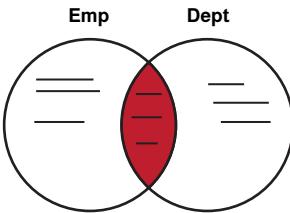
on Emp.Dno = Dept.Dno

where fname is null

Dname
art
Cyber

Emp		
Id	fName	Dno
1	Ali	10
2	Ahmed	10
3	Asmaa	20
4	ALAA	20
5	May	NULL

Dept	
Dnam	Dno
ui	10
sd	20
art	30
Cyber	40

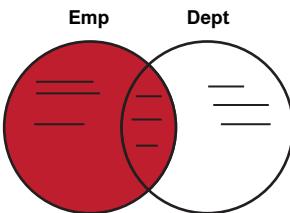


Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

select fname, dname from employee
inner join Department
on Emp.dno = Dept.Dno

Emp		
Id	fName	Dno
1	Ali	10
2	Ahmed	10
3	Asmaa	20
4	ALAA	20
5	May	NULL

Dept	
Dnam	Dno
ui	10
sd	20
art	30
Cyber	40

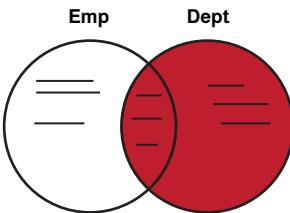


Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

select fname, dname from employee
Left outer join Department
on Emp.dno = Dept.Dno

Emp		
Id	fName	Dno
1	Ali	10
2	Ahmed	10
3	Asmaa	20
4	ALAA	20
5	May	NULL

Dept	
Dnam	Dno
ui	10
sd	20
art	30
Cyber	40

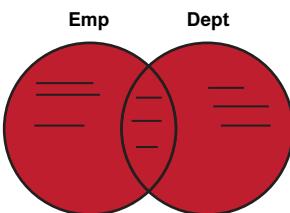


Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

select fname, dname from employee
right outer join Department
on Emp.dno = Dept.Dno

Emp		
Id	fName	Dno
1	Ali	10
2	Ahmed	10
3	Asmaa	20
4	ALAA	20
5	May	NULL

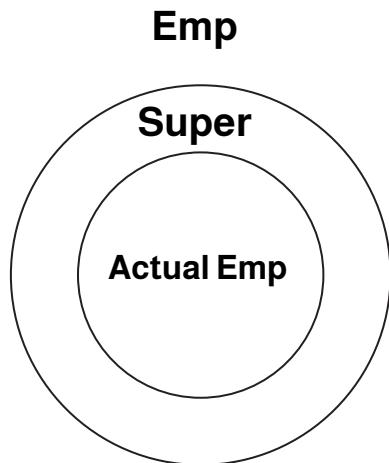
Dept	
Dnam	Dno
ui	10
sd	20
art	30
Cyber	40



Fname	Name
Ali	ui
Ahmed	ui
Asmaa	sd
ALAA	sd

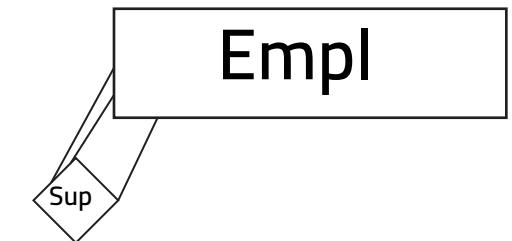
select fname, dname from employee
full outer join Department
on Emp.dno = Dept.Dno

Self Join

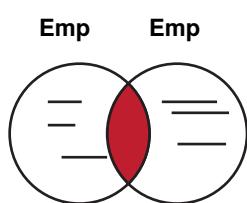


A table representing the Employee data. The columns are id, Name, Dno, and SuperSSN. The rows show the following data:

id	Name	Dno	SuperSSN
1	Ahmed	10	Null
2	Kamal	20	1
3	May	30	1
4	Asmaa	20	2
5	Waled	20	1



Select name, name from Employee
inner join employee
on supperssn = id



Two tables representing the Employee data. The left table is labeled "Child" and the right table is labeled "Super".

Child Table:

id	Name	Dno	SuperSSN
1	Ahmed	10	Null
2	Kamal	20	1
3	May	30	1
4	Asmaa	20	2
5	Waled	20	1

Super Table:

id	Name	Dno	SuperSSN
1	Ahmed	10	Null
2	Kamal	20	1
3	May	30	1
4	Asmaa	20	2
5	Waled	20	1

Select Super.name as Super_Name ,Emp.name as Emp_Name from Employee As Super
inner join employee As Emp
on Super.l= Emp.id