



MORE ON JOINS

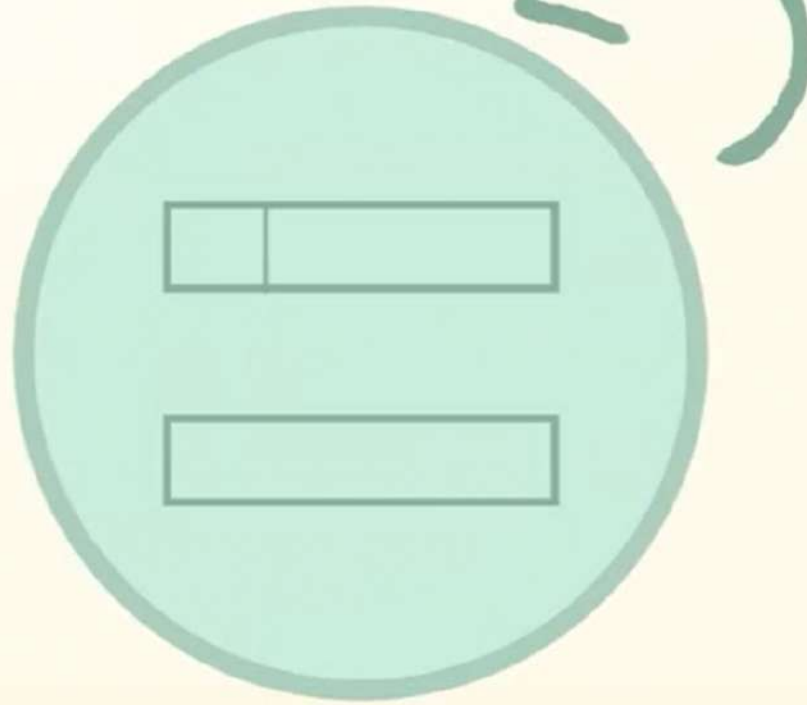
Data Analytics

Speaker - Mr. Eshan Tiwari



SELF JOIN

TABLE A



SELF JOIN

Employees Table

Id	FullName	Salary	ManagerId
1	John Smith	10000	3
2	Jane Anderson	12000	3
3	Tom Lanon	15000	4
4	Anne Connor	20000	
5	Jeremy York	9000	1

Query

```
SELECT  
    employee.Id,  
    employee.FullName,  
    employee.ManagerId,  
    manager.FullName as ManagerName  
FROM Employees employee  
JOIN Employees manager  
ON employee.ManagerId = manager.Id
```

Output

Id	FullName	ManagerId	ManagerName
1	John Smith	3	Tom Lanon
2	Jane Anderson	3	Tom Lanon
3	Tom Lanon	4	Anne Connor
5	Jeremy York	1	John Smith



Book1 - Excel

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Calibri 11 A A

General

Normal Red Green Neutral Calculation

Clipboard Font Alignment Numbers Styles Cells Editing Ideas Security

AutoSave


SELECT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2	Employee ID	Name	Salary	Managed id	Manager Name		Employee IName	Salary	Managed id						
3	1	A	10000	3	C		1	A	10000	3					
4	2	B	12000	3	C		2	B	12000	3					
5	3	C	15000	4	D		3	C	15000	4					
6	4	D	20000		#N/A		4	D	20000						
7	5	E	9000	1	A		5	E	9000	1					
8															
9							SELECT								
10							a.employee_id,								
11							a.Name								
12							a.manager_id,								
13							b.name								
14	Output						FROM								
15	Employee ID	Name	Managed id	Manager Name			LEFT Input a								
16	1	A		3	C		JOIN								
17	2	B		3	C		Input b								
18	3	C		4	D		ON a.Manager_id = b.employee_id								
19	4	D													
20	5	E		1	A										
21															

Sheet1

Ready

Count: 10 Display Settings



SELF JOIN

Category Table:

Id	Quantity	Category	ParentCategoryId
1	60	Food	
2	50	Fruit	1
3	40	Apple	2
4	20	Granny Smith	3
5	100	Milk	1
6	60	Soy Milk	5
7	40	Cow Milk	5
8	30	Whole Milk	7
9	10	Fat-Free Milk	7

Query

```
SELECT
    category.Id,
    category.Quantity,
    category.Category,
    category.ParentCategoryId,
    parentcategory.Category as ParentCategory
FROM Category category
JOIN Category parentcategory
ON category.ParentCategoryId =
    parentcategory.Id
```



SELF JOIN

Output

Id	Quantity	Category	ParentCategoryId	ParentCategory
2	50	Fruit	1	Food
3	40	Apple	2	Fruit
4	20	Granny Smith	3	Apple
5	100	Milk	1	Food
6	60	Soy Milk	5	Milk
7	40	Cow Milk	5	Milk
8	30	Whole Milk	7	Cow Milk
9	10	Fat-Free Milk	7	Cow Milk



CROSS JOIN

TABLE A

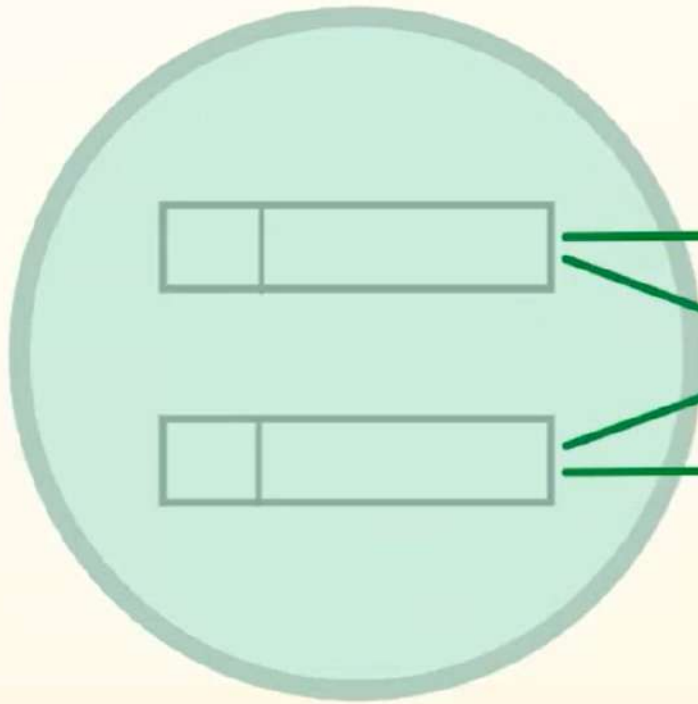
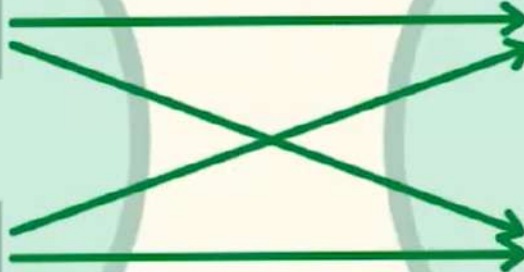
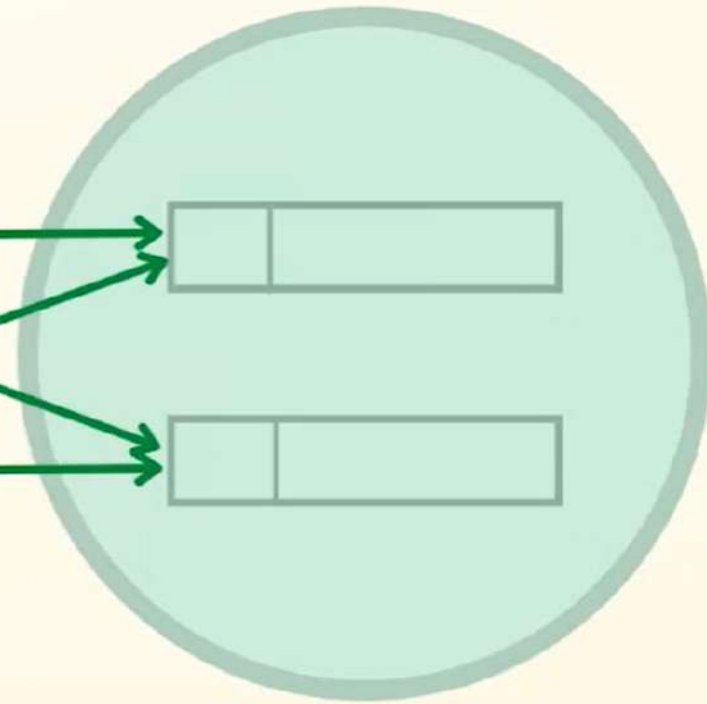


TABLE B



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Clipboard Font Alignment Numbers Styles Cells Editing Ideas Sensitivity

AutoSave

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Table A		TABLE B																	
2	id		name																	
3		1	a																	
4		2	b																	
5			c																	
6																				
7	SELECT		id	name																
8	id,		1 a																	
9	name		1 b																	
10	FROM		1 c																	
11	Table_A		2 a																	
12	CROSS JOIN		2 b																	
13	Table_B		2 c																	
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				

Sheet1 Sheet2

Display Settings



CROSS JOIN

T-shirt Table

tshirt	
id	size
1	S
2	M
3	L
4	XL

Colour Table

id	name
1	yellow
2	green
3	pink

Query

```
SELECT * FROM tshirt  
CROSS JOIN color;
```

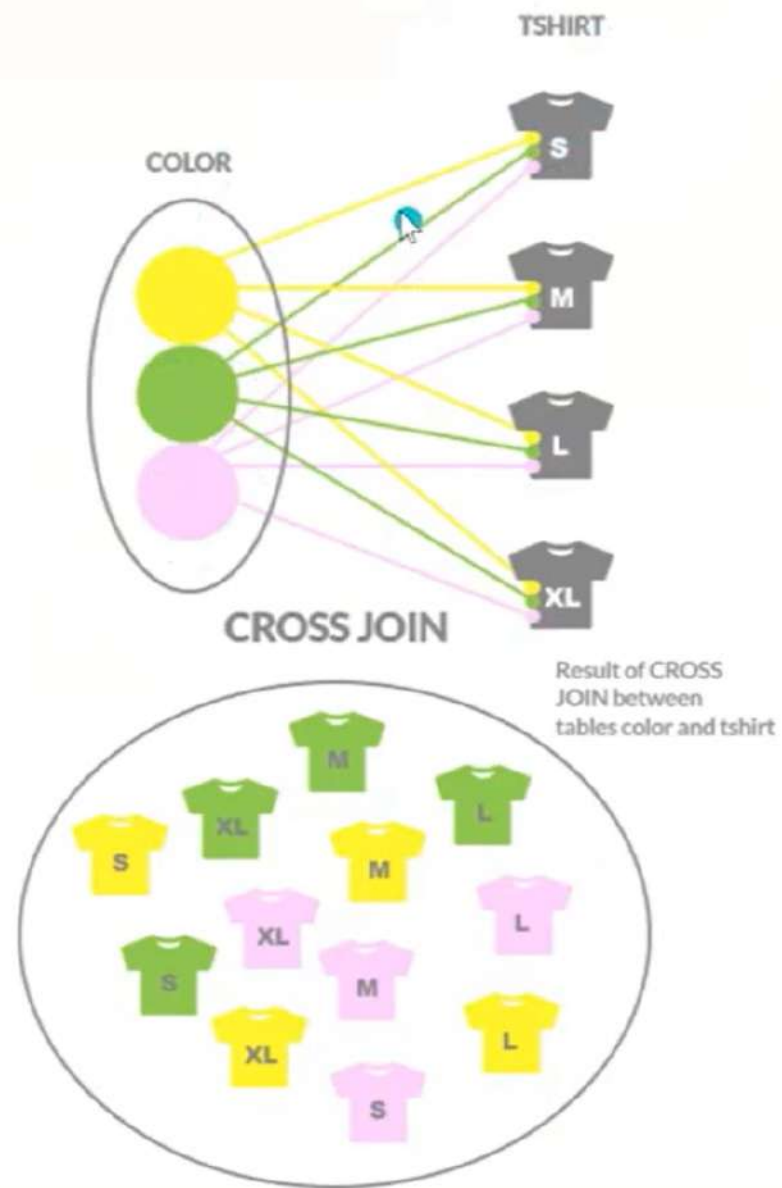
Output

id	size	id	name
1	S	1	yellow
2	M	1	yellow
3	L	1	yellow
4	XL	1	yellow
1	S	2	green
2	M	2	green
3	L	2	green
4	XL	2	green
1	S	3	pink
2	M	3	pink
3	L	3	pink
4	XL	3	pink



21:14
21:16





CROSS JOIN

Query

MatchScore Table

Player	Department_id	Goals
Franklin	1	2
Alan	1	3
Priyanka	2	2
Rajesh	3	5

Departments Table

Department_id	Department_name
1	IT
2	HR
3	Marketing

Output

Player	Department_id	Goals	Depatment_id	Department_name
Franklin	1	2	1	IT
Alan	1	3	1	IT
Priyanka	2	2	1	IT
Rajesh	3	5	1	IT
Franklin	1	2	2	HR
Alan	1	3	2	HR
Priyanka	2	2	2	HR
Rajesh	3	5	2	HR
Franklin	1	2	3	Marketing
Alan	1	3	3	Marketing
Priyanka	2	2	3	Marketing
Rajesh	3	5	3	Marketing



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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Table: language						Output									
2																
3	Language	Students					Language	Students	perc_student							
4	English	35					English	35	27%							
5	Hindi	33					Hindi	33	25%							
6	Maths	22					Maths	22	17%							
7	Science	40					Science	40	31%							
8							SELECT									
9							language,									
10							student									
11							ROUND(100.0 * student/total,2) as perc_student									
12			Sum of all s	130			FROM									
13							language a									
14							CROSS JOIN									
15	Language	Students					(SELECT SUM(students) AS total FROM language) b									
16	English	35	130	27%												
17	Hindi	33	130	25%												
18	Maths	22	130	17%												
19	Science	40	130	31%												
20																
21																
22																

Sheet1 Sheet2 Sheet3

Ready

Display Settings

