# M 365 Excel Class Video 15: Power Query Merge / Join feature in Excel & Power BI

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## Merge Feature and Join Kinds

• Here are the types of Joins-Mergers we can do in Power Query:



### 1. What is a Merge / Join?

- 1) The term **Join** comes from the SQL (Structured Query Language) and means that two or more related columns from related tables are joined to create a merged result.
- 2) The term **Merge** is used in Power Query to indicate that two or more related columns from related queries are joined to create a merged result.
- 3) One query is used when you have a self-join.

### 2. Requirements for a Merge:

- 1) The Merge feature only works on Queries. You cannot merge two Excel Tables from the worksheet unless they are first imported into Power Query as new queries.
- 2) The Merge Feature works on Power Query Table Objects, not List Objects.
- 3) Merges require related columns in one or more tables. For example, you can run a merge to bring the price of a product from a product table into a sales table based on the related column, Product, which exists in both tables.

### 3. Power Query Merge is similar to XLOOKUP or Data Model Relationships or SQL Joins

- 1) XLOOKUP works with two related columns to pull items from one table into another table. It is similar to a Left Outer Join.
- 2) The Data Model Relationship works across related columns so that you can lookup items up and create reports and visuals from more than one table. It is similar to a Left Outer Join.
- 3) Inner, Left Outer, Right Outer, Union and Full Joins in an SQL Query are like the ones that we will see in Power Query.

# 4. Where is the Merge feature in Excel and Power BI?

• **Excel**, Data tab in Excel Ribbon, Get & Transform Group Get Data dropdown, Combine Queries:

Get From Text/CSV	🖥 Fron 🗟 Rece 🎦 Exist	n Picture ~ ent Sources ing Connectio	Refresh All ~	Queries & Coni Properties Coni	nections
From <u>File</u>	>	< C)(	QL	ieries & Connectioi	ns
From <u>D</u> atabase	>	V Jx Cr	O O	Р	Q
From <u>A</u> zure	>				
From Power Platform	>				
From Online Services	>			1	
From <u>O</u> ther Sources	>				
Legacy <u>Wizards</u>	>				
Combine Queries	>		ge Merge Merge t	wo queries from th	nis
Launch Power Query Editor.	a::	Ann	workbo	ok.	
Data Source Settings					

• **Excel**, Home tab in Power Query Ribbon, Combine Group:

File	Home	Transform Add	d Column View				
Close & Load •	Refresh Preview •	Properties Advanced Editor Manage	Choose Remove Columns * Columns *	Keep Remove Rows * Rows *	A↓ Z↓	Column → By <sup>1</sup> / <sub>2</sub> Replace Values <sup>4</sup> / <sub>2</sub> Merge Que	ries <del>*</del> Jeries <del>*</del> Iles
Close		Query	Manage Columns	Reduce Rows	Sort	t Transform Combine	2

• Power BI Desktop, Home tab in Power Query Ribbon, Combine Group:

	<del>↓</del>   14-N	M365ExcelClassSf	art - Power Quer	/ Editor						01	
File	Home	Transform	Add Column	View To	ools Help			2314			
Close & Apply •	New Source +	Recent Sources - Data	Data source settings	Manage Parameters +	Refresh Preview • Manage •	Choose Remove Columns + Columns +	Keep Remove Rows * Rows *	A↓ X↓	Split Column - By	Data Type: Any ▼ Use First Row as Headers ▼ 1	Merge Queries Text An Merge Queries in Merge Queries as New e N
Close	1	New Query	Data Sources	Parameters	Query	Manage Columns	Reduce Rows	Sort		Transform	Combine Al

• Power BI Online, Dataflows (Power Query Online), Home tab, Combine Group:

	Power BI MECS-VideoC	lass					MECS	13Prod	ductSales 🗸		
=		Power Query	a,						,○ Search (Alt + Q)		
â	Home	Home T	ransform	Add colur	mn View Help					<b>`</b>	
+	Create	Get Enter	0ptions	Manage	Refresh	Choose Remove	Keep Remove Filter	2↓ X↓	ABC Data type: Date 123 Data type: Date Split Group Use first row as hea	Merge queries ~	Map to
Ð	Browse	data ∽ data New query	Options	parameters ~ Parameters	<ul> <li>Manage ~</li> <li>Query</li> </ul>	columns - columns - Manage columns	rows - rows - rows Reduce rows	Sort	column - by G2 Replace values Transform	Merge queries as new	entity CDM
0	Data hub	Queries [2]		< 🗵	$\checkmark f_{\!X}$ Table.SelectColumn	s(CalculateCOGS, {"Da	te", "Product", "Units	", "Re	evenue", "COGS"})		
Q	Metrics	dBProdu	rts	1	Date  AC Product  123 Uni 2/16/2024 Quad	ts • 1.2 Revenue • 1.2 252 11009.88	2 COGS 💌 5064.54				

# 5. In Merge Dialog Box, Left = Top and Right = Bottom

SJ		
Employee	Le	eft = Top
Sol Marroquin		
Kiera Mcfall		
Chantel Mims		
Elinore Dees		
Wei Lockwood		
В	*	
Employee	Riah	t = Bottom
Chantel Mims		
Roxanna Mercier	8.	ne.
Fanny Denning		
Lesha Nobles		
Wei Lockwood		
oin Kind		
Inner (only matching rows)	. *	
Use fuzzy matching to perform	the merge	

# 6. Using Merge Dialog Box

3) Select Related Columns 2) Right Table = Bottom	
3) Select Related Columns ~ ← 2) Right Table = Bottom	
Columns	
<pre>/ Related Columns → ← 2) Right Table = Bottom</pre>	
Columns - Columns (Columns 2) Right Table = Bottom	
- 2) Right Table = Bottom	
- 2) Right Table = Bottom	
- 2) Right Table = Bottom	

# 7. Table.NestedJoin M Code Function

×	√ ƒ <sub>X</sub> = Tabl L	e.NestedJoin(SJ, {"Employee") .eft Query .eft Related Column	Right Query	New Column Name	Inner) ^ Join Kind
	A <sup>B</sup> <sub>C</sub> Employee	💌 📰 Both 🔤			
1	Chantel Mims	Table			
2	Wei Lockwood	Table			
3	Jamal Hayward	Table			
4	Beaulah Wenger	Table			
5	Malvina Hamer	Table			

# 8. Left-Outer- Merge / Join

- When we create a Left-Outer Merge / Join between tables we want to keep all items from the Related Column on the Left and retrieve only matching items from the Related Column on the Right. With a Left-Outer Join, we are asking the question: "Please give me all rows from the Left table and matching rows from the Right Table".
- 2) A Left-Outer Join can be thought of as a Classic Lookup situation like in Excel with XLOOKUP or in a Data Model with a One-To-Many Relationship. However, with a Left-Outer Join you an accomplish multiple look tasks that would take multiple Excel features to accomplish. A Left-Outer Join can lookup a price or use two lookup values to lookup a price, which is what the XLOOKUP worksheet function can do, but it can also perform a "one lookup value to return multiple records", which is what the FILTER worksheet function can do. In this way, a Power Query Left-Outer Join is more versatile that worksheet functions (DAX function too).

Classic Lookup into R

Left Outer

- 3) Synonyms for Left-Outer Join:
  - i. Left
  - ii. Left Join
  - iii. Left Outer
  - iv. Classic Lookup
  - v. All from the first, matching from the second
- 4) Left Outer Join as seen in Power Query Dropdown List:

#### Join Kind

Left Outer (all from first, matching from second) Left Outer (all from first, matching from second)

Right Outer (all from second, matching from first)

Full Outer (all rows from both)

Inner (only matching rows)

Left Anti (rows only in first)

Right Anti (rows only in second)

5) Although a Left-Outer Join can do more than a typical classic lookup, we can think of it as a classic lookup as an easy way to remember what it does. The Venn Diagram above illustrates the final Left-Outer-Join Merge:

	Α	В	C		DE		F	G H	I.	J	K	L	
1													
2		Left Table = f	Sales		Right Table = d	<b>IProductPrice</b>		Goal: Ret	urn Sales Tab	le with I	new Pric	e Columr	n
3		Product = For	eign Key		Product = Prim	ary Key		Replaces	LOOKUP or F	Realtions	ships (Cla	ssic Look	(up
4													
5		Product	Units 🔽	-	Product	🖵 Price		Product	🖵 Units 🖵 🛛	Price 🖵			
6		Quad		48	Carlota		\$26	Quad	48	43			
7		Kangaroo		168	Quad		\$43	Carlota	132	26			
8		Carlota		132	Sunshine		\$19	Carlota	72	26			
9		Carlota		72	Majestic Beaut	t	\$27	Kangaroo	168				
10		Sunshine		108				Sunshine	108	19			
11		Quad		156				Quad	156	43			
12		Carlota		96				Carlota	96	26			
13		Sunshine		60				Sunshine	60	19			
14		Sunshine		24				Sunshine	24	19			
15		Carlota		120				Carlota	120	26			
16		Quad		24		¢		Quad	24	43			

Example from the video of looking up a price:

### Example from the video of using two lookup values:

Α	В	С	D E	F	G		Η	J	K	L	Μ	Ν
1												
2	Left Table = fS	alesColor		<b>Right Table</b>	= dProductC	olor		Goal: Ret	urn Sales	Table with I	new Price	Column
3	Product & Cold	or = Foreign	(ey	Product & C	Color = Prima	ry Key		Replaces	Two Loo	kup Values F	ormula	
4												
5	Product	Color	Units 🖵	Product	🗸 Color	Price	-	Product	- Color	🖵 Units 🖵	Price 🔽	
6	Quad	Red	48	Carlota	Red		\$26.00	Quad	Red	48	43	
7	Quad	Blue	156	Quad	Red		\$43.00	Quad	Red	168	43	
8	Quad	Red	168	Sunshine	Red		\$19.00	Quad	Blue	156	41	
9	Carlota	Blue	132	Carlota	Blue		\$24.00	Quad	Blue	156	41	
10	Carlota	Blue	72	Quad	Blue		\$41.00	Sunshine	Red	108	19	
11	Sunshine	Red	108	Sunshine	Blue		\$18.00 <mark>.</mark>	Carlota	Blue	132	24	
12	Quad	Blue	156					Carlota	Blue	72	24	
13	Carlota	Red	96					Carlota	Red	96	26	
14	Sunshine	Red	60					Sunshine	Red	60	19	
15	Sunshine	Blue	24					Sunshine	Blue	24	18	
16	Carlota	Blue	120					Carlota	Blue	120	24	
17	Quad	Blue	24					Quad	Blue	24	41	

Example from the video of performing a "one lookup value to return multiple records" type of lookup and then summing the multiple matched sales amount:

### \*\* Big Key: As shown in video, this feature should only be used on small data sets.

	А	В		С	D	E	F		G I	4 1	J	K
1												
2	¢	Left Table = In	voiceNo			Right Table = Ir	nvoiceDetail			Goal: Lookup	Multiple Invoi	ce Line Items
3		Unique List of	Invoice I	No.		Multiple Invoic	e No. to Look	up & Return.		and return	multiple item	s to a columns.
4										Replaces com	plicated Excel	Solution for
5										Single Loo	kup Value, Ret	urn Multiple Items
6												
7		Invoice No.	<b>*</b>	Discount%	<b>*</b>	Invoice No.	Product	🗸 Sales	<b>v</b>	Invoice No.	Discount%	🗸 Sum of Sales 🛛 🗸
8			4588	0.065	5	4588	3 Carlota		130	458	8 0.06	i5 803
9			4589	0.0375	5	4588	3 Quad		559	458	9 0.037	75 768
10			4590	0.12	2	4588	8 Sunshine		114	459	0 0.1	.2 2869
11						4589	9 Quad		559			
12						4589	9 Sunshine		209			
13						4590	) Carlota		2869			

# 9. Right-Outer Merge / Join

- 1) This Merge / Join works the same as a Left-Outer Merge / Join, except we keep all records form the right table and only matching from the left.
  - i. In general, Right-Outer-Join Merge are rare because we can accomplish the same goal by using a Left-Outer-Join Merge and switching the Left Table for the Right Table.
  - ii. All of the same concepts that we learned in the previous three examples for a Left-Outer-Join Merge also apply for a Right-Outer-Join Merge.
- 2) Synonyms for Right-Outer-Join Merge: Right, Right Join, Right Outer.
- 3) Left Outer Join as seen in Power Query Dropdown List:



4) Example from video that delivers a table that shows all suppliers (right table), but only related products (left table):

	А	В	C	D	E	F	G	Н	I.	J
1										
2		Left Table = dP	roCactRightOut	er		]	Right Table = dSupplier	RightOuter		
3		with Supplier II	D Column (Fore	ign Key)			with Supplier ID Colum	n (Primary Key)		
4										
5		Product 📮	SupplierID-P	💌 Price 💌	Cost 💌		SupplierID-S	Name 🔽	City 🗖	State 💌
6		Aspen	СО	23	11		CO	Colorado Boomerangs	Gunnison	CO
7		Carlota	GB	26	12.75		GB	Gel Boomerangs	Oakland	CA
8		Majestic Beaut	GB	29	15.85		DB	Darnell Booms	Manchester	MA
9		Quad	GB	43	22.5					
10		Sunshine	СО	19	1.25					
11		Kangaroo	CC	14	6.95					
12										
13										_
14		Goal: is to show	v all Suppliers f	rom the Rig	ht Table an	nd all of the Rela	ted Products,			7
15		but do NOT sho	ow Products wi	thout a Supp	olier					
16										
17		Product 🚽	SupplierID-P	💌 Price 💌	Cost 🛛 💌	SupplierID-S 🔽	Name 🚽	City 🔽	State 🔹	1
18		Aspen	СО	23	11	CO	Colorado Boomerangs	Gunnison	CO	
19		Carlota	GB	26	12.75	GB	Gel Boomerangs	Oakland	CA	
20		Majestic Beaut	GB	29	15.85	GB	Gel Boomerangs	Oakland	CA	
21		Quad	GB	43	22.5	GB	Gel Boomerangs	Oakland	CA	
22		Sunshine	СО	19	1.25	CO	Colorado Boomerangs	Gunnison	CO	
23						DB	Darnell Booms	Manchester	MA	7

### **10.Left-Anti-Join Merge :**

- 1) When we create a Left-Anti-Join Merge, we are asking the question: "Please give me all the items that are in Column 1 that are NOT in Column 2 and return the corresponding records.
- 2) A Left-Anti-Join could be thought of as an AND Logical Test where we ask: "Is item in Column 1 AND is item NOT in Column 2".
- 3) In Relational Algebra when we create Set Operations, you can think of the Left-Anti-Join as a Difference, or Minus, or Except Operator, where Set 2 is subtracted from Set 1 and items a that are in both sets are dropped from the resulting set.
- 4) Synonyms for Inner Join:
  - i. In Table 1, Not in Table 2.
  - ii. Left-Anti.
  - iii. Relational Algebra or Set Operator terminology:
    - 1. Except Set Operator.
    - 2. Difference Set Operator.
    - 3. Minus Set Operator.
  - iv. All in First Table that are not in Second Table.
  - v. Rows only in first.

#### 5) Left Anti Join as seen in Power Query Dropdown List





- 6) The above Venn Diagram illustrates that the overlap between the two tables is not included in the final Left-Anti-Join Merge.
- 7) Example from video that shows employees that went to first conference, but not second:

	А	В	C D	E	F			
1								
2		Left Table = Table 1	Right Tal	ole = Table 2	Who Attended Only San Jose Conference?			
		Employees who attended DAX	Employees who attended	DAX Basics	In Table 1, NOT in Table 2			
3		Basics San Jose Conference	Bellevue Conference		Left-Anti Merge / Join			
4								
5		EmployeeNameSanJose	EmployeeNameBellevue		EmployeeNameSanJose 🔽			
6		Sol Marroquin	Raven Beatty		Sol Marroquin			
7		Kiera Mcfall	Roxanna Mercier		Kiera Mcfall			
8		Raven Beatty	Fanny Denning		Elinore Dees			
9		Elinore Dees	Lesha Nobles		Donald Eldridge			
10		Wei Lockwood	Wei Lockwood		Claudio Beam			
11		Donald Eldridge	Gertrudis Fitzpatrick		Reyna Luke			
12		Claudio Beam	Angelita Packer		Vivan Keeney			
13		Angelita Packer	Beaulah Wenger					
14		Reyna Luke	Malvina Hamer					
15		Beaulah Wenger	Bernita Crutcher					
16		Malvina Hamer	Shiela Anaya					
17		Vivan Keeney	Yolonda Armstead					

### **11.Right-Anti-Join Merge :**

- 1) When we create a Right-Anti-Join Merge, we are asking the question: "Please give me all the items that are in Column 2 that are NOT in Column 1 and return the corresponding records. A Right-Anti-Join could be thought of as an AND Logical Test where we ask: "Is item in Column 2 AND is item NOT in Column 1".
- 2) In general, Right-Anti-Join Merge are rare because we can accomplish the same goal by using a Left-Anti-Join Merge and switching the Left Table for the Right Table. In fact, in the SQL language and in the DAX Function language code writers use the Except Set Operator or the EXCEPT DAX Function and simply switch the order of the tables when they want to do a Right-Anti-Join Merge.
- 3) Right Anti Join as seen in Power Query Dropdown List





- 4) The above Venn Diagram illustrates that the overlap between the two tables is not included in the final Right-Anti-Join Merge.
- 5) Example from video that shows employees that went to second conference, but not first:

	A B 🔒	C D	E F			
1						
2	Left Table = Table 1	Right Table = Table 2	Who Attended Only Bellevue Conference?			
	Employees who attended DAX	Employees who attended DAX Basics	In Table 2, NOT in Table 1			
3	Basics San Jose Conference	Bellevue Conference	Right-Anti Merge / Join			
4						
5	EmployeeNameSanJose	EmployeeNameBellevue	EmployeeNameBellevue			
6	Sol Marroquin	Raven Beatty	Roxanna Mercier			
7	Kiera Mcfall	Roxanna Mercier	Fanny Denning			
8	Raven Beatty	Fanny Denning	Lesha Nobles			
9	Elinore Dees	Lesha Nobles	Gertrudis Fitzpatrick			
10	Wei Lockwood	Wei Lockwood	Bernita Crutcher			
11	Donald Eldridge	Gertrudis Fitzpatrick	Shiela Anaya			
12	Claudio Beam	Angelita Packer	Yolonda Armstead			
13	Angelita Packer	Beaulah Wenger				
14	Reyna Luke	Malvina Hamer				
15	Beaulah Wenger	Bernita Crutcher				
16	Malvina Hamer	Shiela Anaya				
17	Vivan Keeney	Yolonda Armstead				

# 12.Inner (AND Logical Test ) Merge / Join

- When we create an Inner Merge / Join, we run an AND Logical Test to check if there are equivalent values in both related columns, and if there are, the query returns records for the matching values. Records are returned only when there are matches in both columns. We are asking the question: "Are there matching items in both columns?"
- 2) Synonyms for Inner Join:
  - i. AND Logic Test.
  - ii. ALL TRUE.
  - iii. Intersection or Concurrent or Joint.
  - iv. Both.
  - v. Inner or Inner Join or Natural Join.
  - vi. Intersection Operator/Symbol:  $\cap$ .
  - vii. Only Matching Rows.
- 3) Inner Join as seen in Power Query Dropdown List:





- 4) An AND Logical Test Venn Diagram below illustrates that it is only the overlap, or the items listed in both tables that will be part of the final Inner Join / Merge.
- 6) Example from video that shows employees that went to both conference:

	В	С	D	Е	F
1					
2	Left Table		Right Table		Who Attended Both Coferences?
	Employees who attended DAX Basics	Employees who a	attended DAX Basics		
3	San Jose Conference	E	Bellevue Conference		AND Logical Test (Inner Join)
4					
5	Employee 🔽	Employee	<b>~</b>		Employee 🗸
6	Sol Marroquin	Chantel Mims			Chantel Mims
7	Kiera Mcfall	Roxanna Mercier			Wei Lockwood
8	Chantel Mims	Fanny Denning			Jamal Hayward
9	Elinore Dees	Lesha Nobles			Beaulah Wenger
10	Wei Lockwood	Wei Lockwood			Malvina Hamer
11	Donald Eldridge	Gertrudis Fitzpatri	ck		
12	Claudio Beam	Jamal Hayward			
13	Jamal Hayward	Beaulah Wenger			
14	Reyna Luke	Malvina Hamer			
15	Beaulah Wenger	Bernita Crutcher			
16	Malvina Hamer	Shiela Anaya			
17	Vivan Keeney	Yolonda Armstead			

# 13.Full-Outer (OR Logical Test ) Merge / Join

- 6) When we create a Full-Outer Merge / Join across related columns, we run an OR Logical Test that asks the question: "Are there matching values in the two related columns, or is there an unmatched value in the first column, or is there an unmatched value in the second column?" A Full-Outer Join will return all records from both tables and when there are records that do not have a corresponding value match in the other table, null values will be returned.
- 7) Synonyms for Full Outer Join:
  - i. OR Logic Test.
  - ii. Any TRUE.
  - iii. Union.
  - iv. Give Me All Items.
  - v. OR.
  - vi. Full Outer.
  - vii. Union Operator/Symbol:  $\cup$ .
  - viii. All Rows From Both.
- 5) Full Outer Join as seen in Power Query Dropdown List:



**OR Logical Test** 

- 6) An OR Logical Test is used when we do a Full Outer Join or when we use the Union operation in Statistics or the SQL language. This means we want all the records from both tables, regardless of whether the Related Columns have matched items. The above Venn Diagram illustrates that all records from both tables will be part of the final Full-Outer Merge / Join.
- 7) Example from video that shows a Full Outer Join (OR Logical Test):

	A B	С	D	E	F	G	Н	l.	J
1									
2	Product Tak	ole = Left Table	= dProduct			Supplier Table = Right Table = dSupplier			
3	with Suppli	er ID Column (F	Foreign Key)			with Supplier ID Column (Primary Key)			
4									
5	Product	🚽 SupplierID	D-P 💌 Price 💌	Cost 💌		SupplierID-S	Name	City	State
6	Aspen	CO	23	11		СО	Colorado Boomerangs	Gunnison	СО
7	Carlota	GB	26	12.75		GB	Gel Boomerangs	Oakland	CA
8	Majestic Be	aut GB	ආ	15.85		DB	Darnell Booms	Manchester	MA
9	Quad	GB	43	22.5					
10	Sunshine	CO	19	1.25					
11	Kangaroo	CC	14	6.95					
12									
13									
14	Based on Su	upplierID Colun	nn, we want to N	Vierge /	Join				
15	all record	ds from Left (dP	Product) Table wi	th					
16	all record	ds from Right (d	Supplier) Table.						
17	OR Logical 1	Fest =							
18	1) Records v	where SupplierI	D is only listed in	n Left Tal	ble (dProduct) (	DR			
19	2) Records v	where SupplierI	D is only listed in	n Right T	able (dSupplier)	) OR			
20	3) Records v	where SupplierI	D is listed in Bot	h Tables	and therefore t	the records from both side	es will become one new	record	
21	Full-Outer-J	loin Merge							
22									
23									
24	Product	🔽 SupplierID	D-P 🔽 Price 🔽 🤇	Cost 🔽 S	SupplierID-S 🔽	Name 🔽	City 🔽	State 🔽	
25	Aspen	CO	23	11 (	CO	Colorado Boomerangs	Gunnison	CO	
26	Carlota	GB	26	12.75 (	GB	Gel Boomerangs	Oakland	CA	
27	Majestic Be	aut GB	29	15.85 (	GB	Gel Boomerangs	Oakland	CA	
28	Quad	GB	43	22.5 (	GB	Gel Boomerangs	Oakland	CA	
29	Sunshine	CO	19	1.25 (	CO	Colorado Boomerangs	Gunnison	CO	
30	Kangaroo	CC	14	6.95					
31				[	DB	Darnell Booms	Manchester	MA	

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# 14.Self- Join / Merge

- 1) Self-Join is the term used when a join is made between column in a table and another column in the same table.
- 2) For our example we will use the Employee table as shown in the picture below. Our goal is to add a column to the table that will be based on a Join between the column "Employee Who Referred New Employee" (Foreign Key) and the column EmployeeID (Primary Key) so that we see a name for the employee who referred the new employee rather than an Employee ID. We can use a Left Outer Join and use the "Employee Who Referred New Employee" column in the table as the left side of the join and the "EmployeeID" column in the table as the right side of the join.



3) Example from video where we needed to lookup the employee referral name:

A	В	С	D	E	F G	Н	1	J	K
1 2 3 4 5	Single Table = E EmployeeID (Pr Employee Who	mployeeTable 'imary Key). Referred New Emp	oloyee Column (Fi	oreign Key)	Goal: Add new of Employee v We will do a S	r Column to Table tha rho referred the new elf-Join.	t shows name employee.		
				Employee Who Referred New	Employee Who Referred New				
6	EmployeeID 🔽	Name	💌 Hire Date 🖉	Employee 📃 💌	EmployeeID	Name	🕶 Hire Date 🔽 E	mployee 🛛 🔽	ReferedBy 🗾 🔽
7	1488	Sioux Radcoolinato	or 3/14/2009		148	3 Sioux Radcoolinator	3/14/2009		
8	1489	Catarina Rasmus	5/7/2009		148	9 Catarina Rasmus	5/7/2009		
9	1490	Kenny Gersten	9/9/2009	1488	149	) Kenny Gersten	9/9/2009	1488	Sioux Radcoolinator
10	1491	Debrah Lukes	3/9/2010	1488	149	L Debrah Lukes	3/9/2010	1488	Sioux Radcoolinator
11	1492	Fletcher Tom	9/6/2010	1490	1492	2 Fletcher Tom	9/6/2010	1490	Kenny Gersten
12	1493	Laticia Morra	8/18/2011		149	3 Laticia Morra	8/18/2011		
13	1494	Sid Atchley	12/25/2013	1493	149	1 Sid Atchley	12/25/2013	1493	Laticia Morra