

# Combining data in Power Query

DATA TRANSFORMATION IN POWER BI

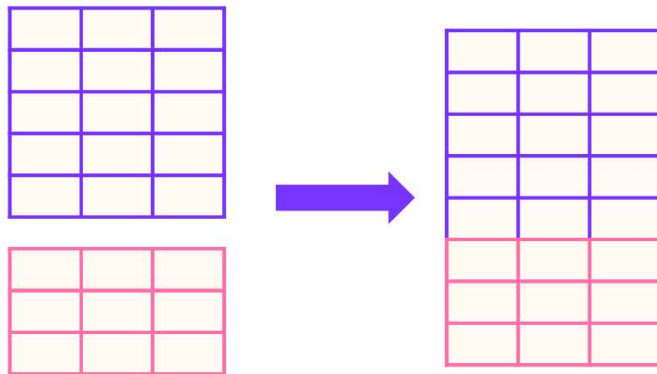


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# Why combine data?

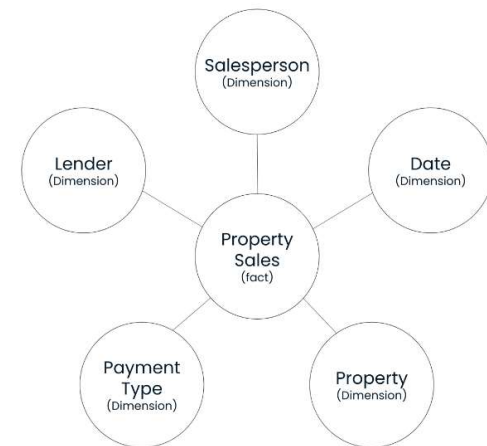
## Append Queries

- Many separate files with similar data
- Data is too large to store in one file



## Merge Queries

- Tables have relationships between one or more columns
- Tables can be combined to make a "flat" structure



# Appending data

- Append query will add rows to your table
  - "Vertically" combining queries
  - Column names must be the same

2018 Q1		
2018 Q2		
2018 Q3		
2018 Q4		
2019 Q1		
...		

- Nulls will appear when there are different column names or number of columns

Player A	Player B	Player C
1	1	1
2	2	2
3	3	3

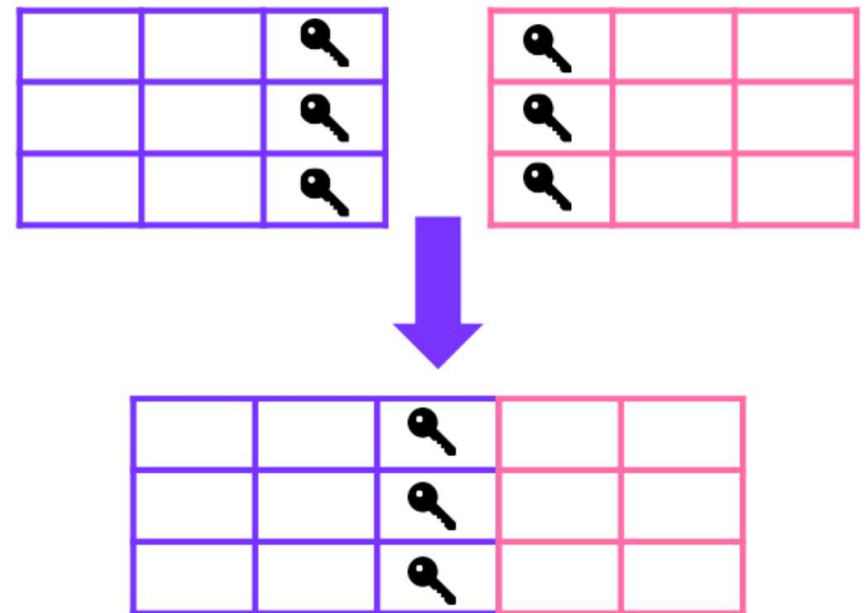
Player A	Player B	Player D
4	4	4
5	5	5

Player A	Player B	Player C	Player D
1	1	1	null
2	2	2	null
3	3	3	null
4	4	null	4
5	5	null	5

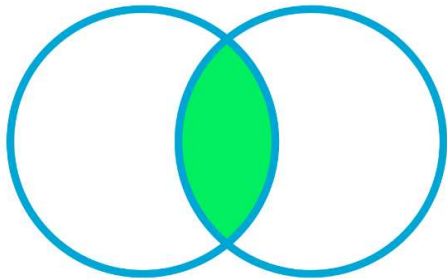
# Merging data

- Merging queries will add columns to your table
  - "Horizontally" combining queries
  - Join tables through unique identifiers or keys



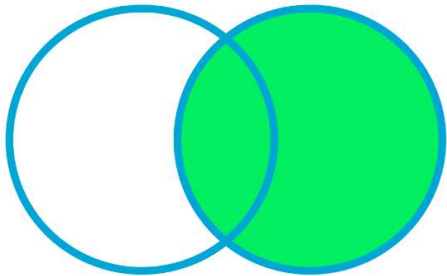
# Merging data: types of joins

## Inner Join



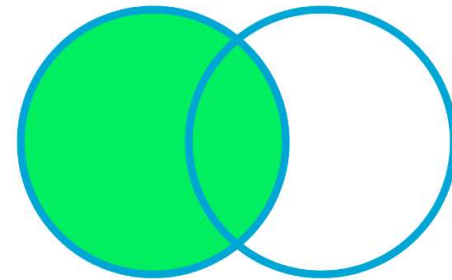
Returns matched rows only

## Right Join



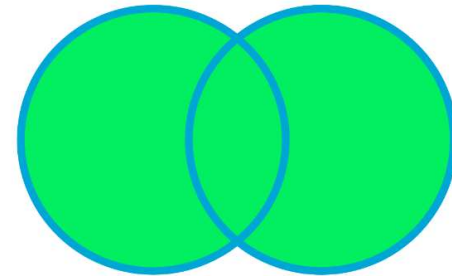
Returns matched rows and right table's rows

## Left Join



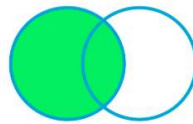
Returns matched rows and left table's rows

## Full Join



Returns matched rows and both tables' rows

# Merging data: example of a left join

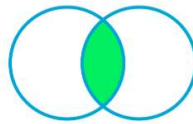


Sales Table		
Customer_id	Value	Product_id
1	\$80	123
2	\$5	456
3	\$500	789

Product Table		
Product_id	Category	Product
123	Shoes	Running Shoes
456	Clothing	Socks

Customer_id	Value	Product_id	Category	Product
1	\$80	123	Shoes	Running Shoes
2	\$5	456	Clothing	Socks
3	\$500	789	<i>null</i>	<i>null</i>

# Merging data: example of an inner join



Sales Table		
Customer_id	Value	Product_id
1	\$80	123
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3	\$500	789

Product Table		
Product_id	Category	Product
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