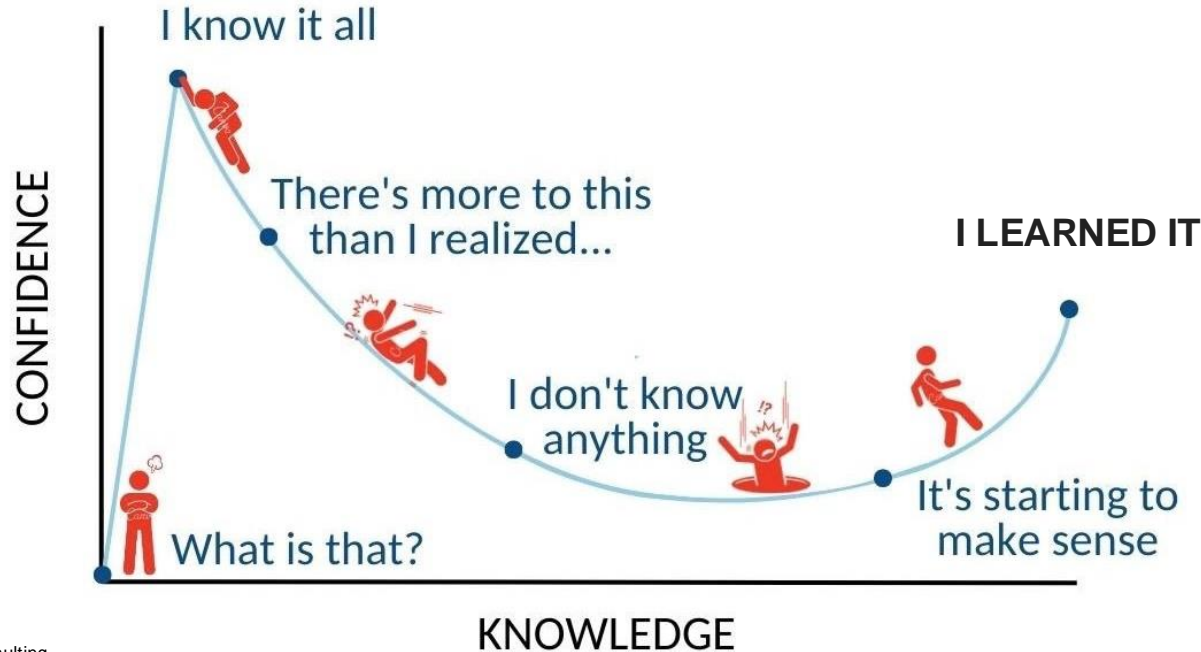


correlation.:one

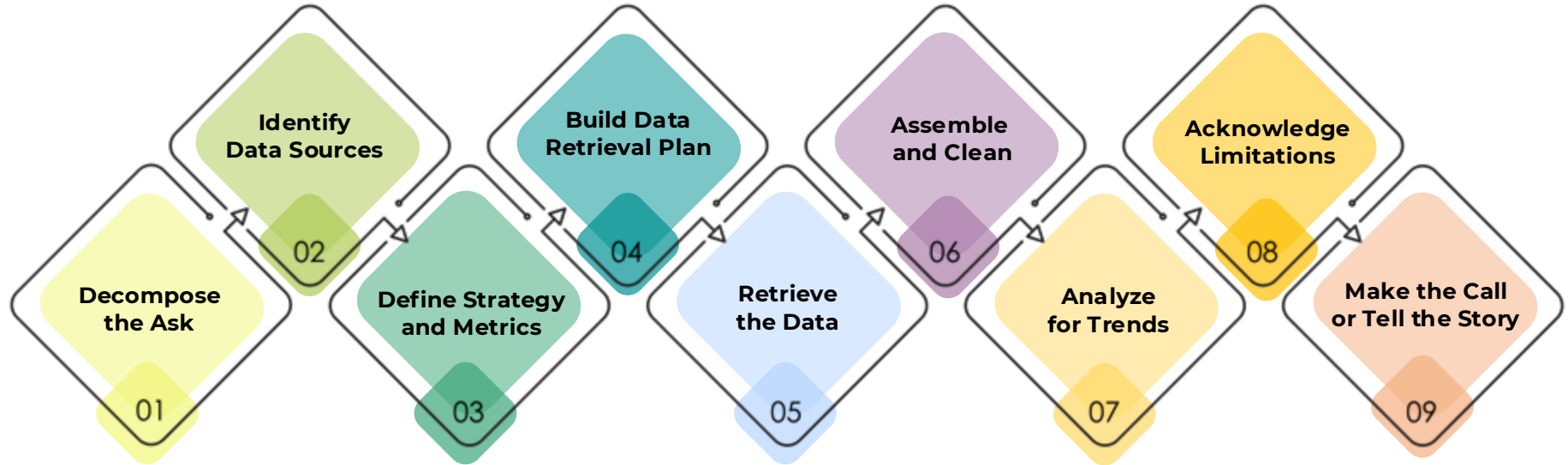
TECH FOR JOBS

Dunning-Kruger Effect



Analytics Paradigm

Regardless of type or industry, this paradigm provides a repeatable pathway for effective data problem solving.



Get Pivot With It

Pivot tables are one of the most important data visualization concepts to master in this class.

The screenshot shows a PivotTable in Excel with the following data:

Sum of Revenue	Column Labels			
Row Labels	Cambridge	Piccadilly	Grand Total	
2014	\$ 1,111,886	\$ 1,214,733	\$ 2,326,619	
January	\$ 90,005	\$ 94,910	\$ 184,915	
February	\$ 104,397	\$ 133,914	\$ 238,311	
March	\$ 53,546	\$ 80,115	\$ 133,661	
April	\$ 103,543	\$ 98,960	\$ 202,503	
May	\$ 111,353	\$ 93,664	\$ 205,017	
June	\$ 94,292	\$ 98,108	\$ 192,400	
July	\$ 112,334	\$ 73,953	\$ 186,287	
August	\$ 68,446	\$ 76,590	\$ 145,036	
September	\$ 82,581	\$ 152,078	\$ 234,659	
October	\$ 103,366	\$ 78,984	\$ 182,350	
November	\$ 82,564	\$ 134,740	\$ 217,304	
December	\$ 105,459	\$ 98,717	\$ 204,176	
2015	\$ 1,286,966	\$ 1,523,054	\$ 2,810,020	
January	\$ 134,521	\$ 96,206	\$ 230,727	
February	\$ 85,955	\$ 140,144	\$ 226,099	
March	\$ 129,781	\$ 151,357	\$ 281,138	

The 'Insert Calculated Field' dialog box is open, showing the following details:

- Name: AverageRevenue
- Formula: = Revenue/ Reservations
- Fields: Year, Quarter, Month, RoomType, Revenue, Reservations

The PivotTable Builder is also visible on the right side of the screen, showing the following settings:

- Field Name: Search fields
- Filters: RoomType, Revenue, Reservations
- Columns: RoomType
- Rows: Year, Month
- Values: Sum of Revenue

Get Pivot With It

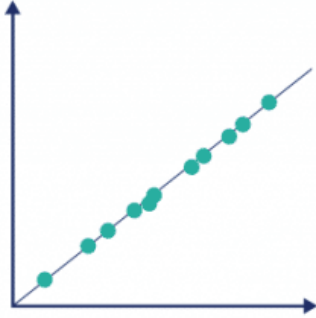
In essence, a pivot table is a **summative** analytic tool that allows us to perform aggregate functions that allow any combination of fields. (The term *pivot table* comes from the fact that we are pivoting along a data axis).

Seller	Qty. Sold	Date
Joseph	\$42.50	1/1/17
Jacob	\$65.00	1/3/17
Jacob	\$5.25	1/6/17
Joseph	\$125.00	1/6/17
Jacob	\$3.50	1/7/17
Matt	\$32.00	1/9/17

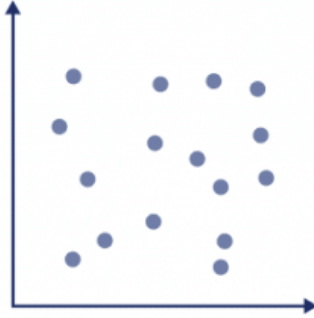
Seller	Total Sold
Joseph	\$167.50
Jacob	\$73.75
Matt	\$32.00

Correlation

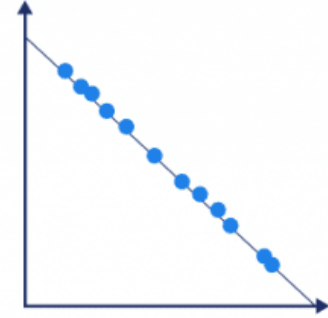
**Perfect positive
correlation**



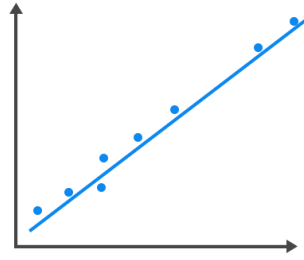
**Zero
correlation**



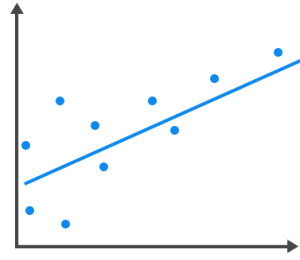
**Perfect negative
correlation**



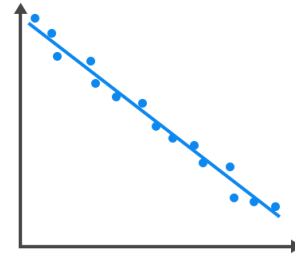
Correlation



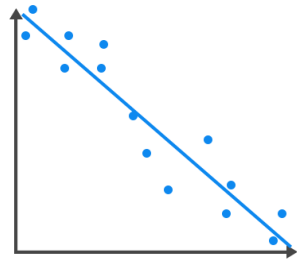
Strong positive correlation



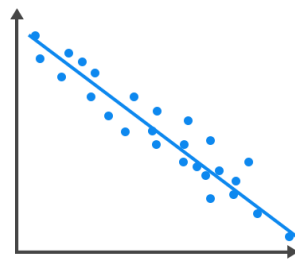
Weak positive correlation



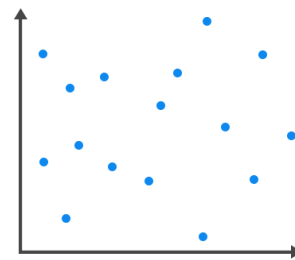
Strong negative correlation



Weak negative correlation



Moderate negative correlation



No correlation