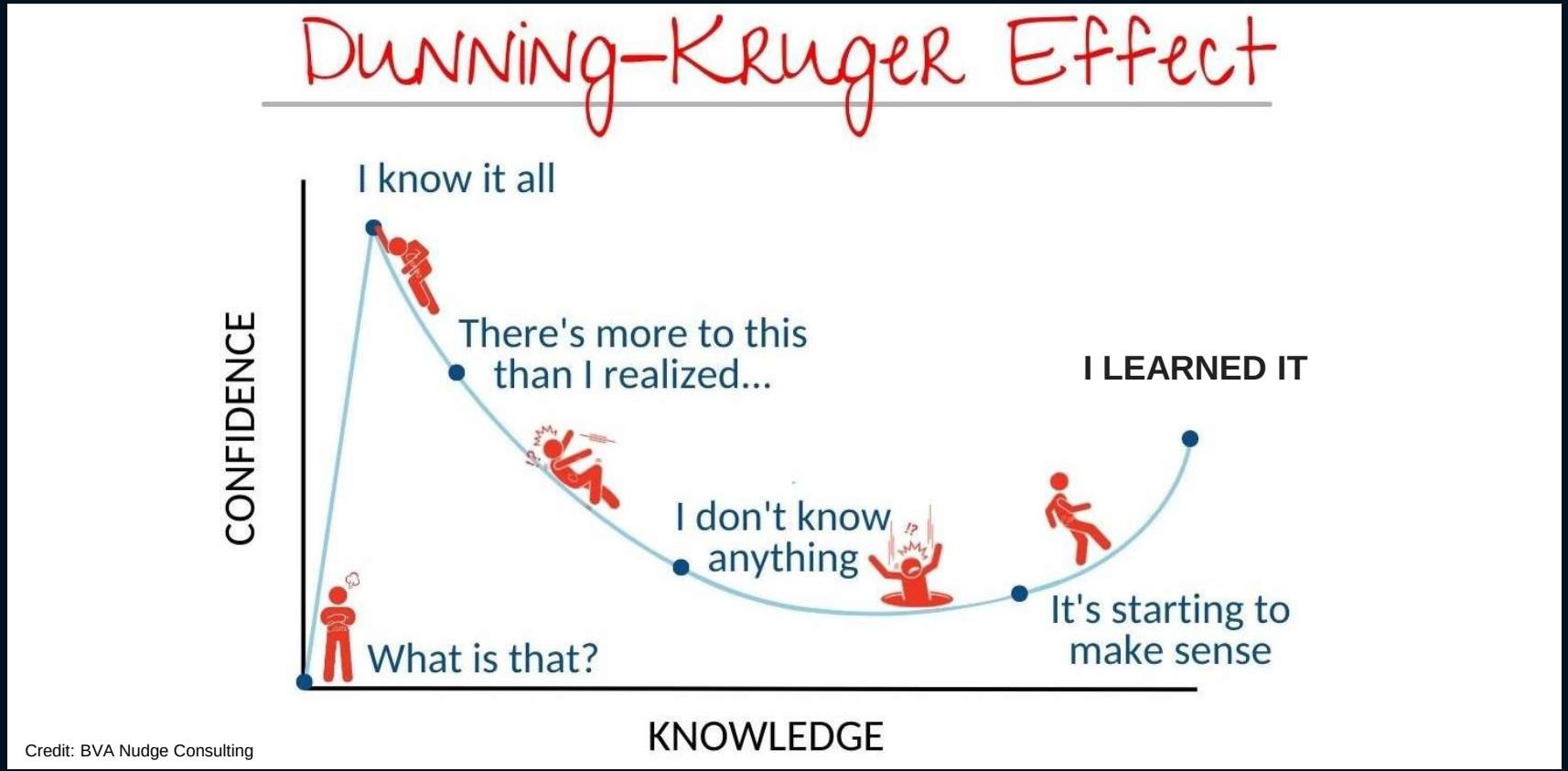
correlation.·one

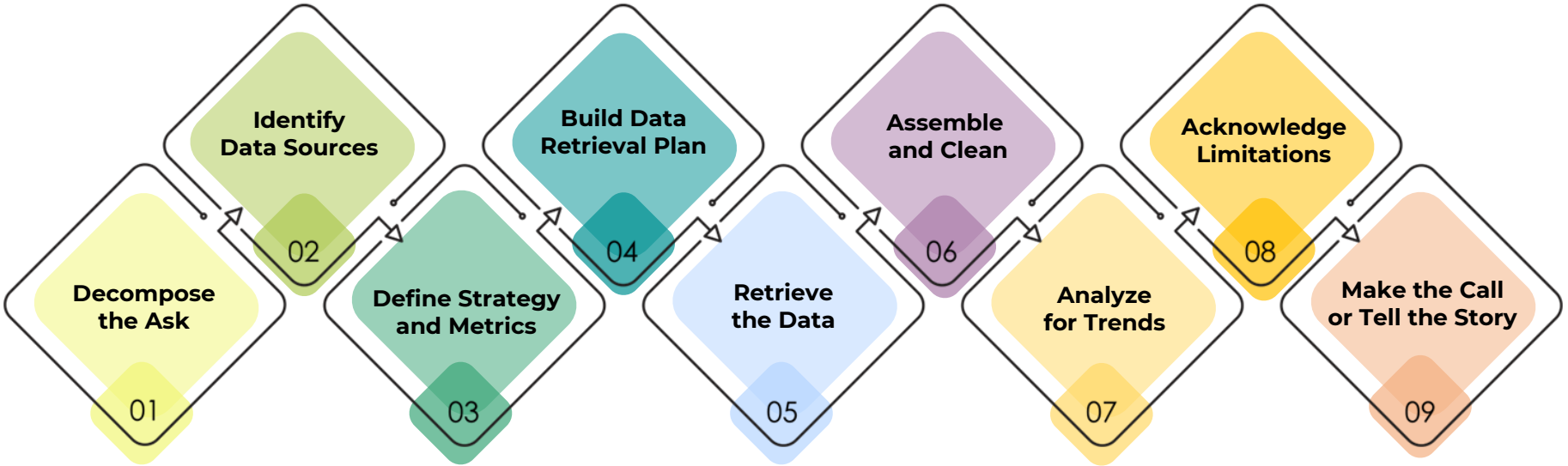
TECH FOR JOBS



Credit: BVA Nudge Consulting

Analytics Paradigm

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



Formulas

Ooh...Coding! (Sort Of)

Excel introduces you to a sort of proto-programming. When you write scripts, you will rely on functions (methods) that do something to or with arguments.

Ooh…Coding! (Sort Of)

When we reference a range or a set of ranges, Excel is given a set of variable inputs. Excel will determine the actual values of these inputs prior to executing the function.

Ooh...Coding! (Sort Of)

What about this example?

This is a **nested function**.

```
= SUM( AVG(F4:F6), AVG(G4:G6) )
```

There are multiple ways to select data in a formula

Most of us learned to select a range of cells to input into a function

```
=SUM (A1:A10)
```

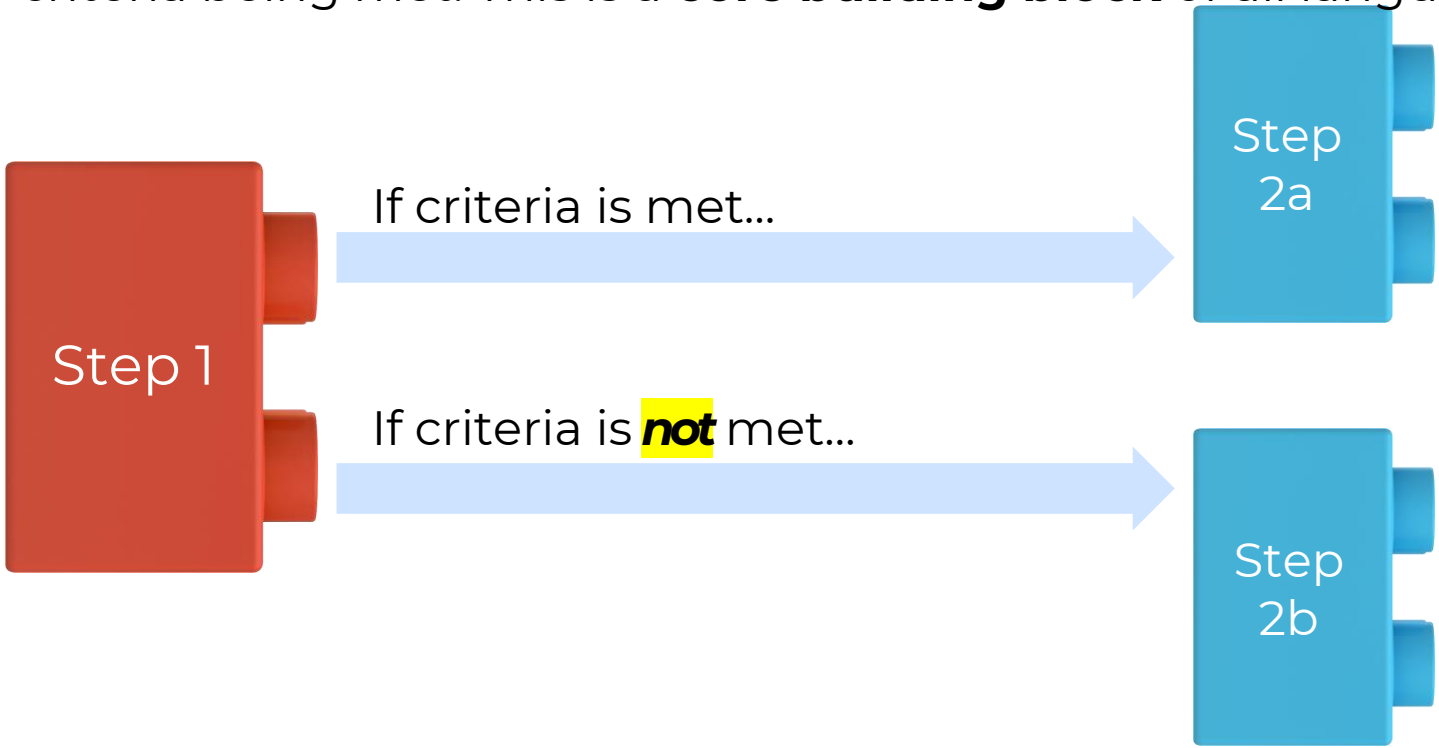
There are multiple ways to select data in a formula

But we can name a range of values to make interpreting formulas easier!

=SUM(A1:A10)  =SUM(prices)

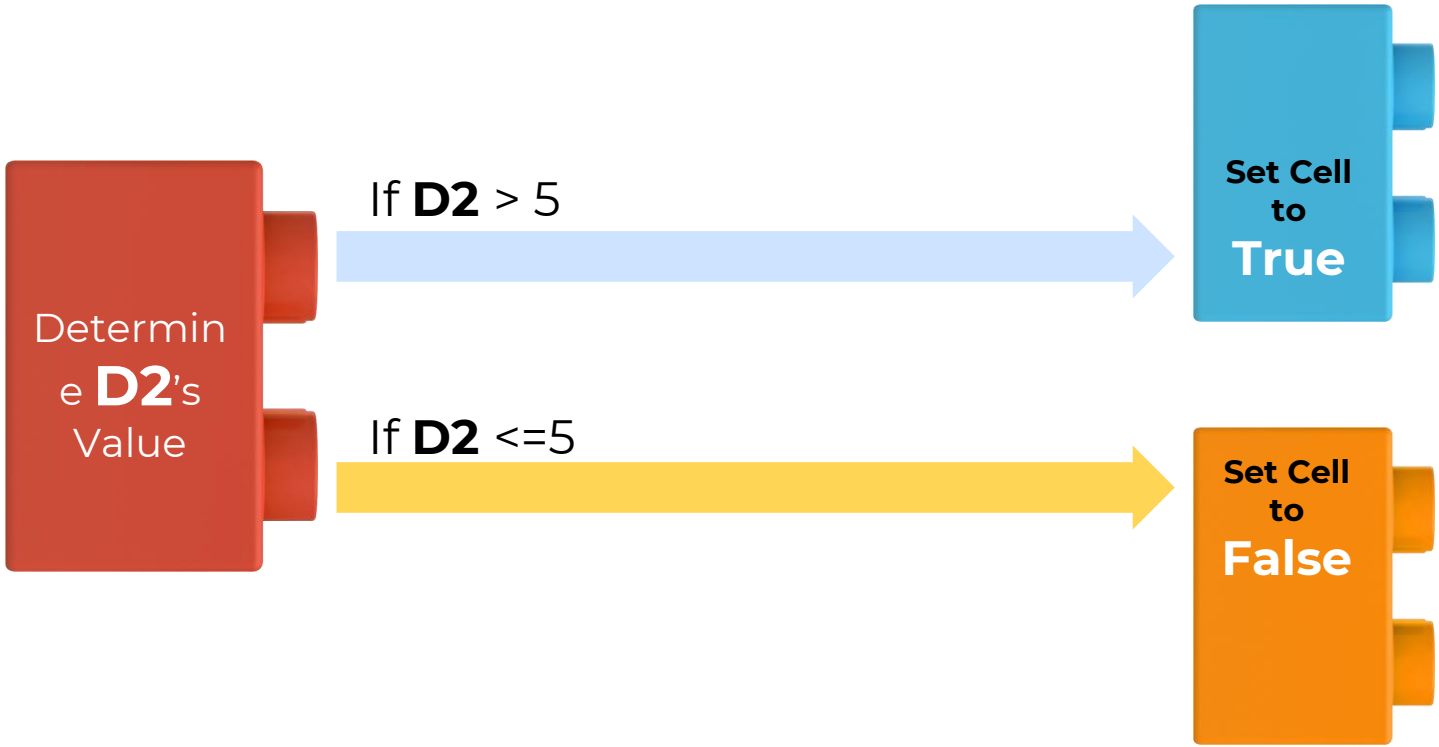
Conditionals: If This, Then That

Conditionals present a way to control the flow of logic based on certain criteria being met. This is a **core building block** of all languages.



Conditionals: If This, Then That

=IF(D2>5,TRUE,FALSE)



Conditionals: If This, Then That

Current reference (description):	Changes to:
A1 (absolute column and absolute row)	A1 (the reference is absolute)
A$1 (relative column and absolute row)	C$1 (the reference is mixed)
$A1 (absolute column and relative row)	$A3 (the reference is mixed)
A1 (relative column and relative row)	C3 (the reference is relative)

But what if we want to combine conditions?

AND, NOT, OR

Ooh...Coding! (Sort Of)

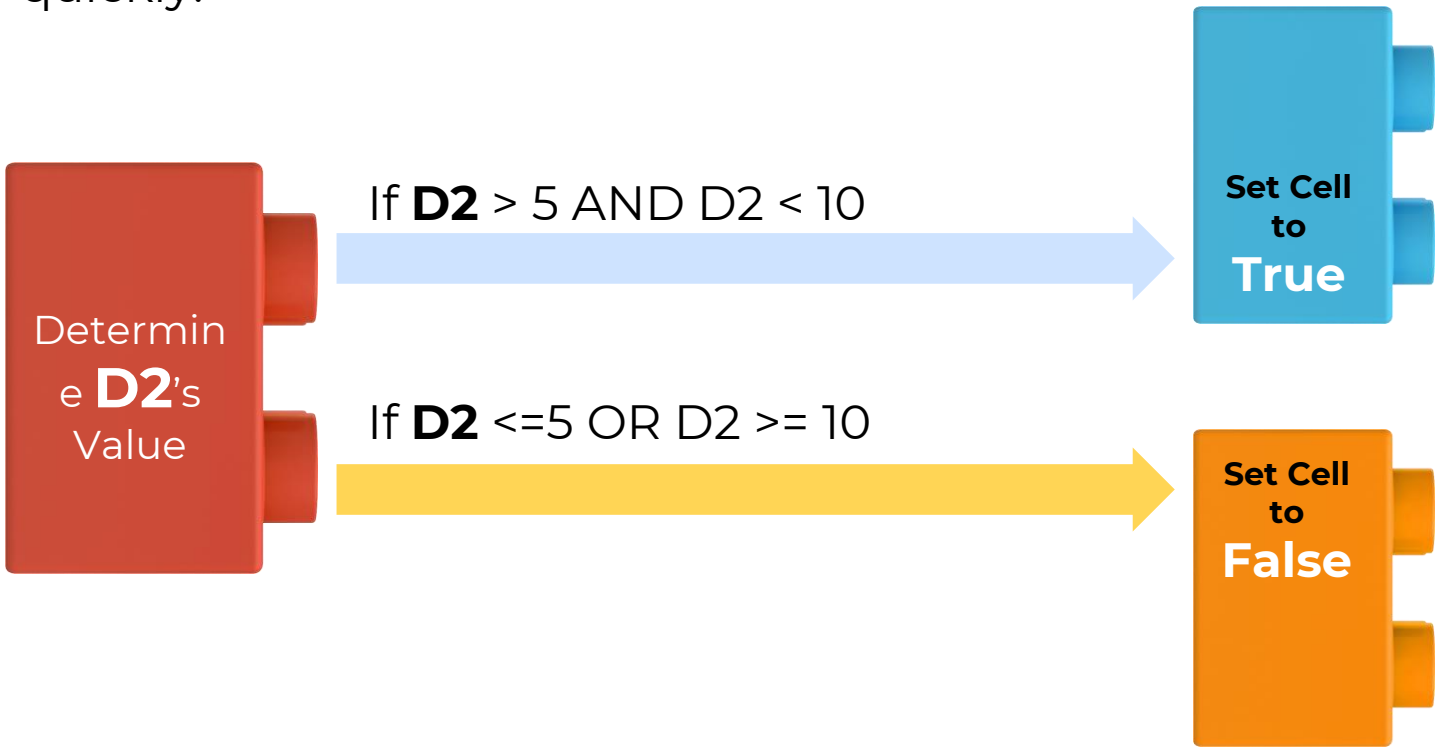
But what if we want
to **combine** conditions?

AND, NOT, OR

```
=IF(AND(D2>5, D2<10),TRUE,FALSE)
```

Conditionals: If This, Then That

Nesting conditionals are powerful, but can become convoluted very quickly!



Look It Up with Lookups

Assume this table is gigantic. How would we **retrieve** the population of a specific planet for use in another formula?

Planet	Population
Zeelo	5020
Merinoa	380
Cardboard Box	2
…	…
Asteroid 9	95

Look It Up with Lookups

Assume this table is gigantic. How would we **retrieve** the population of a specific planet for use in another formula?

=**vlookup**(<value>, <full table>, <column to retrieve>,<match parameter>)

Planet	Population
Zeelo	5020
Merinoa	380
Cardboard Box	2
...	...
Asteroid 9	95

Look It Up with Lookups

What will this yield?
=vlookup(“Asteroid 9”, Planets, 3, FALSE)

Planet	Population	Species
Zeelo	5020	Zoltans
Merinoa	380	Murphies
Cardboard Box	2	Hambones
…	…	
Asteroid 9	95	Asterisks

Look It Up with Lookups

What will this yield?
=vlookup(“Asteroid 9”, Planets, 3, FALSE)

Planet	Population	Species
Zeelo	5020	Zoltans
Merinoa	380	Murphies
Cardboard Box	2	Hambones
…	…	
Asteroid 9	95	Asterisks