Data Mapping

Learning Objectives

- V-lookup
- H-lookup
- Index
- Match
- Offset
- Dropdowns

V Lookup in Excel

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It is used to make a exact match or approximate match and find values from leftmost Column.

- Syntax : =VLOOKUP(Look Up value, Table Array , Column Index number , range look up bool value)
- Example : =VLOOKUP(D12,A3:E8,5,FALSE)
- 1st Argument - D12 will have value to be matched. Here say 103
- 2nd Argument - A3:E8 would be the table in which the value would be matched in ***leftmost Column.***
- 3rd Argument - 5th Column of the selected table
- 4th Argument - False means (Exact Value) If True then (Approximate Value i.e max value less than the 4th argument)

V Lookup in Excel

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- VLOOKUP function always looks up a value in the leftmost column of a table and returns the corresponding value from a column to the right.
- It is Case-insensitive
- In case of multiple matches it will take First Match
- If no value is matched it returns null

H Lookup in Excel

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It is used to make a exact match or approximate match and find values from topmost row.

- Syntax : =HLOOKUP(Look Up value, Table Array , Column Index number , range look up bool value)
- Example : =HLOOKUP(D12,A3:E8,2,FALSE)
- 1st Argument - D12 will have value to be matched. Here say 103
- 2nd Argument - A3:E8 would be the table in which the value would be matched in ***topmost row.***
- 3rd Argument - 2th row of the selected table
- 4th Argument - False means (Exact Value) If True then (Approximate Value i.e max value less than the 4th argument)

H Lookup in Excel

- HLOOKUP function always looks up a value in the topmost row of a table and returns the corresponding value from a column to the right.
- It is Case-insensitive
- In case of multiple matches it will take First Match
- If no value is matched it returns null

Match in Excel

- It returns the position of a value in a given range
  - Syntax : =MATCH(lookup range, row number)
  - Example : =MATCH(A3:A9,5) ➔ Here it the function would return returns the 5th value (second argument) in the range A3:A9 (first argument)

Index in Excel

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- It returns returns a specific value in a one-dimensional range.
  - Syntax : =INDEX(lookup value, lookup range, match type)
  - Example : =INDEX(F13,A3:A9,0) ➔ Here it would look for value o F13 in range from A3 to A9 with exact match and return the position.

Index & Match in Excel

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- To perform advance lookups we can use INDEX & MATCH function together.
- We can get the index value from MATCH function and then use this value in INDEX function for getting the value.

  - Example : =INDEX(D3:D9,MATCH(103,A3:A9,1)) ➔ Here, match function will return value of row with respect to 103 in range A3 to A9 then this 5 will be used by Index function to lookup in 5^{th} row of range D3 to D9.

Two way lookups in Excel

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- To perform two way lookups we can use INDEX & MATCH function together.
- We can get the index values from two MATCH functions and then use this value in INDEX function for getting the value.

  - Example : =INDEX(B26:D27,MATCH(F25,A26:A27,1),MATCH(F26,B25:D25,1)) Here,1st match function will return value of row with respect to F25 in range A26 to A27 and 2nd match function will return value of column with respect to F26 in range F26 to B25 then this coordinates will be used by Index function to lookup for exact value.

Offset in Excel

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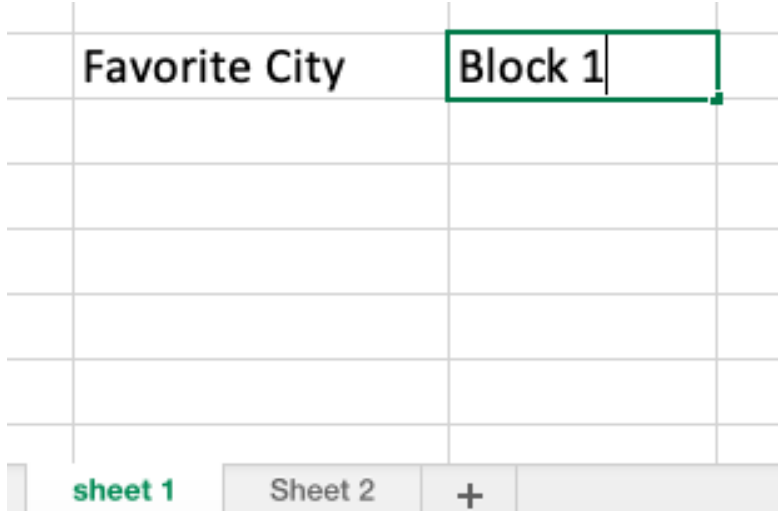
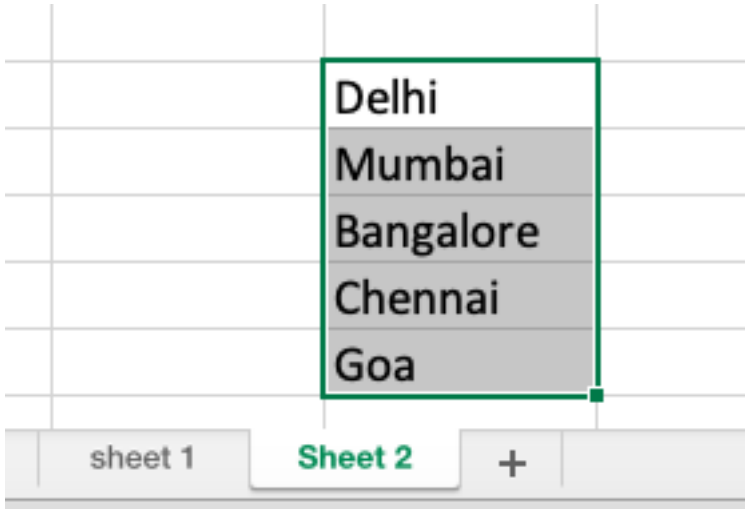
- It returns returns a cell or range of cells that is a specified number of rows and columns from a cell or range of cells.
  - Syntax : =OFFSET(reference, row, column, height, width)
  - Example : =OFFSET(A2,3,3,1,1)➔ reference point will be A2, It will move 3 rows below and 3 columns right. Fetch 1 value in height and 1 width reference value.
  - Example : =SUM(OFFSET(B2,2,2,2,1))➔ reference point will be B2, It will move 2 rows below and 2 columns right. Fetch 2 values in height and 1 in width and return sum.

Dropdown in Excel

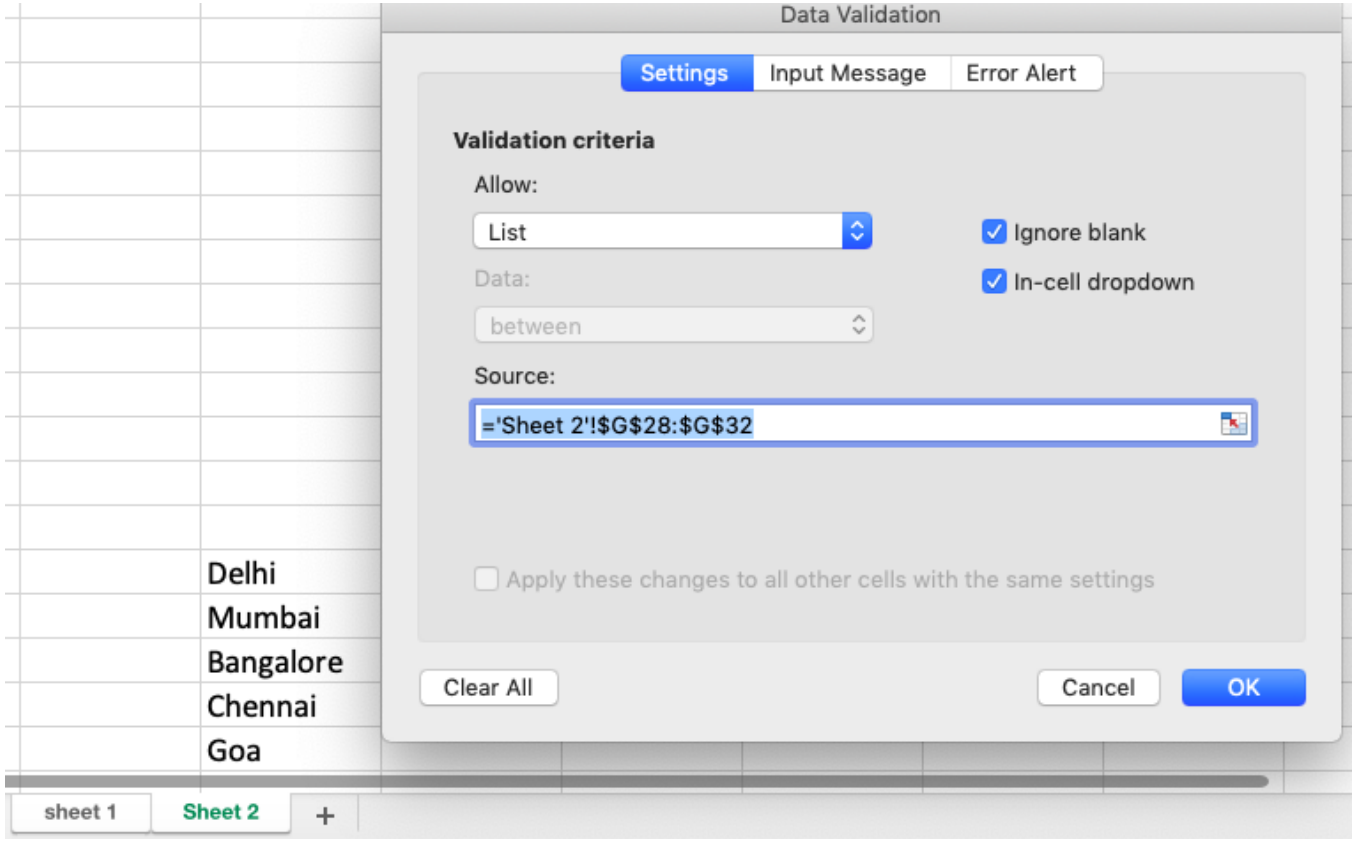
- Instead of typing you can take values from users as a list of data in the form of Dropdown menu.
- Steps to add a Dropdown.
  - Select a cell where you want to make a dropdown in Sheet 1
  - make a list of cities in different cells in Sheet 2 which you want as options in dropdown.





Dropdown in Excel

- Select the cell where you want to add dropdown and hit “Data Validation” button.
- Select List in Allow section.
- In Source select the cell of all the cities (dropdown options)
- Hit okay



Dropdown in Excel

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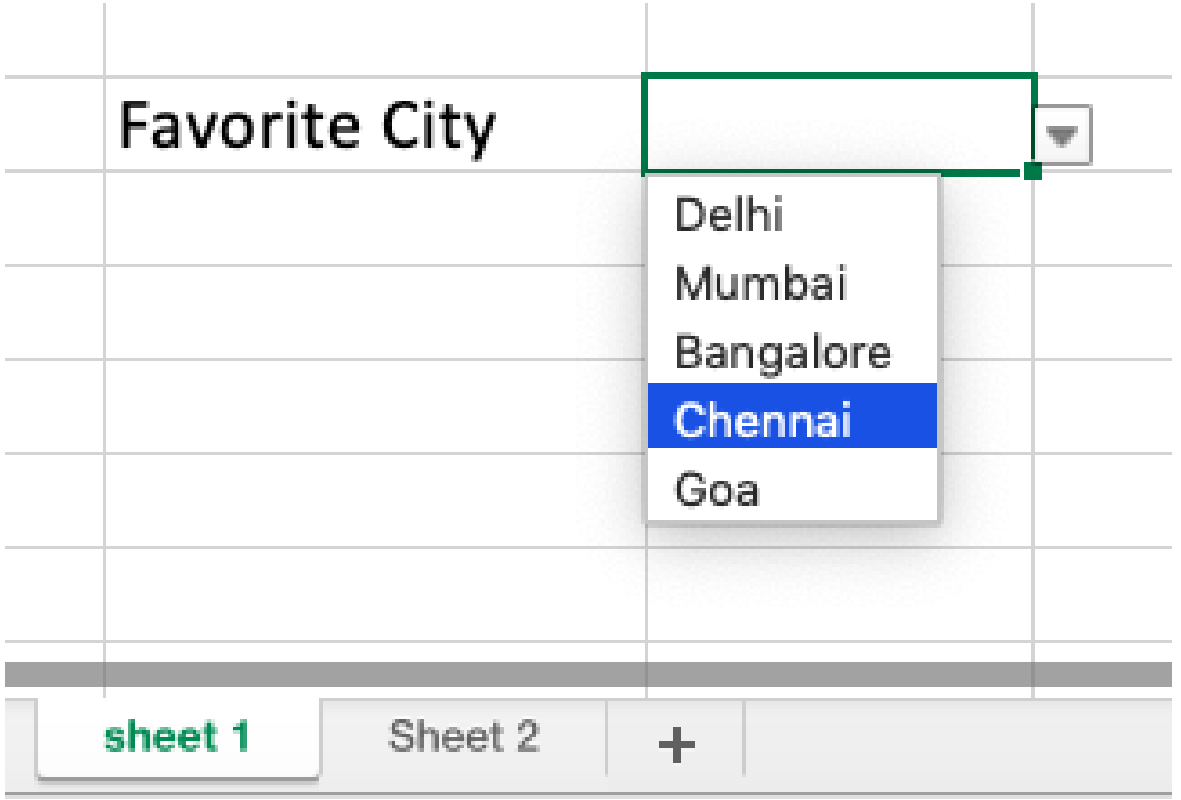
This is how your drop down menu
Would appear in the selected cell.



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The End