

# Microsoft Excel

## *Part 2*



# LOOKUP

- One of the most useful functions in Excel, called [vlookup](#). The “V” stands for “vertical” and “lookup” is pretty self explanatory. This function allows you to look up values in a table that are listed in column format (how most tables are laid out), given another value (let’s call this the “key”). Excel also has a sister function called hlookup (h = horizontal) that can be used to look up values in rows.

A screenshot of a Microsoft Excel spreadsheet. The spreadsheet has columns labeled A through E and rows numbered 1 through 8. Column A is labeled 'First', column B is labeled 'Last', and column C is labeled 'Pcode'. The data in the spreadsheet is as follows:

	A	B	C	D	E
1	First	Last	Pcode		
2	Smith	Fred	A		
3	Robbins	Terry	1		
4	O'Neill	Susan	B		
5	Parker	Scott	D		
6	Perkins	Ralph	D		
7	Talbot	Angie	7		
8					

The 'Pcode' column (column C) is circled in red. The spreadsheet interface includes a menu bar (File, Edit, View, Insert, Format, Tools, Data, Window, Help, AS) and a toolbar with various icons. The active cell is A10.

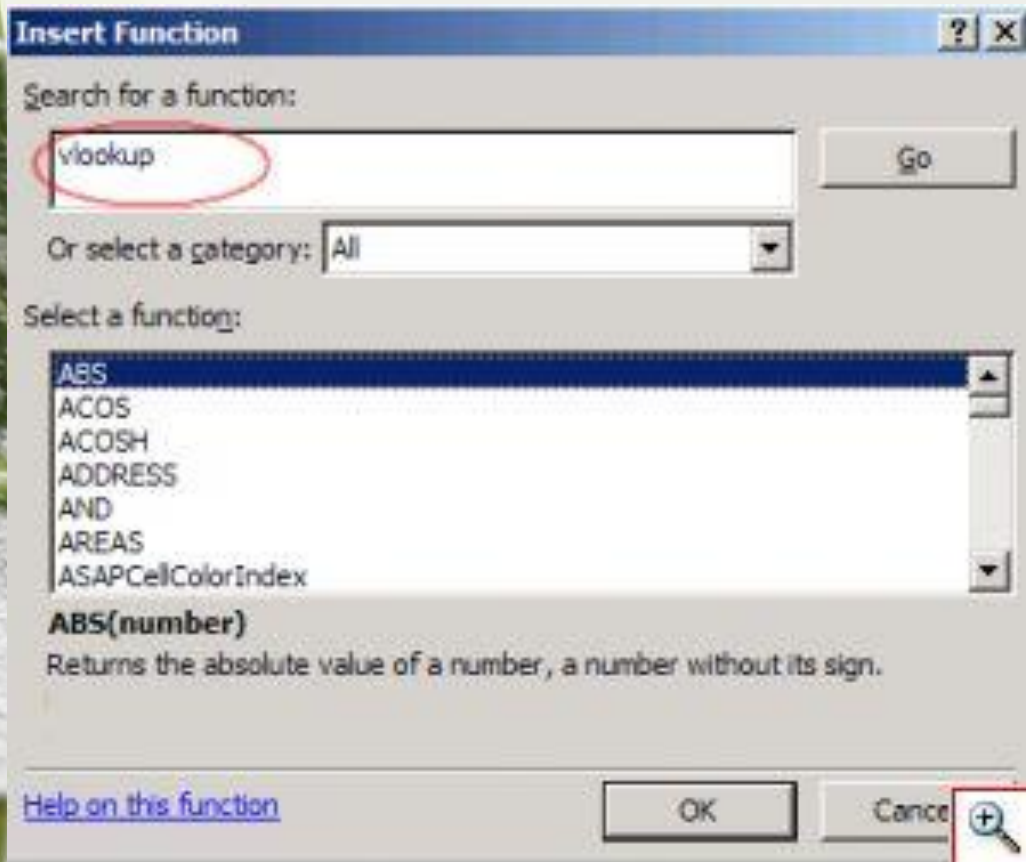
A	B
<b>PARTY CODE</b>	<b>NAME</b>
<b>A</b>	<b>Democratic</b>
<b>B</b>	<b>Republican</b>
<b>C</b>	<b>Decline to State</b>
<b>D</b>	<b>American Independent</b>
<b>E</b>	<b>Citizen Party</b>
<b>F</b>	<b>Communist</b>
<b>G</b>	<b>Conservative</b>
<b>H</b>	<b>Environmentalist</b>
<b>I</b>	<b>Ind. Progressive</b>
<b>J</b>	<b>Liberal</b>

Microsoft Excel - VLOOKUP\_Example.xls

File Edit View Insert Format Tools Data Window Help

D2

	A	B	C	D	E
1	First	Last	Pcode	Political Party	
2	Smith	Fred	A		
3	Robbins	Terry	1		
4	O'Neill	Susan	B		
5	Parker	Scott	D		
6	Perkins	Ralph	D		
7	Talbot	Angie	7		
8					
9					



The screenshot shows a Microsoft Excel spreadsheet with the following data:

	A	B	C	D
1	First	Last	Party Code	Political Party
2	Smith	Fred	A	=VLOOKUP()
3	Robbins	Terry	I	
4	O'Neil	Susan	B	
5	Parkor	Scott	D	
6	Parsons	Ralph	O	
7	Talbot	Angie	7	

The VLOOKUP Arguments dialog box shows the following settings:

- Lookup\_value: A
- Table\_array: (points to the secondary table)
- Col\_index\_num: 2
- Range\_lookup: (checked)

The secondary table (Microsoft Excel - VLOOKUP.Example.xls) contains the following data:

	A	B
1	PARTY CODE	NAME
20	A	Democratic
21	B	Republican
22	C	Decline to State
23	D	American Independent
24	E	Citizen Party
25	F	Communist
26	G	Conservative
27	H	Environmentalist
28	I	Ind. Progressive
29	J	Liberal
30	K	Peace & Freedom
31	L	Prohibition
32	M	New Economy
33	N	Socialist
34	O	Socialist Labor
35	P	Pot Party

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D
1	First	Last	Pcode	Political Party
2	Smith	Fred	A	Democratic
3	Robbins	Terry	1	
4	O'Neill	Brian	8	
5	Parker	Scott	0	
6	Perkins	Ralph	D	
7	Falbot	Angie	7	

The VLOOKUP function dialog box is open, showing the following arguments:

- lookup\_value:** C2 = "A"
- table\_array:** Party Codes!\$A\$2:\$D\$8 = {1, "Green"; 2, "Red"; ...}
- col\_index\_num:** 2 = 2
- range\_lookup:** FALSE = FALSE

The formula result is **Democratic**, which is circled in red. The dialog box also includes a description of the function and a "Help on this function" link.

# Need something harder

- Combining IF and VLOOKUP
- Combining IFERROR and VLOOKUP



- Sebuah perusahaan virtual bernama “**eneng-eneng wae**” menggaji karyawannya berdasar gender. Karyawan Pria mendapat gaji pokok sebesar Rp.1.000.000,- sedangkan karyawan wanita sebesar Rp. 750.000,-. Apabila karyawan pria menikah maka akan mendapatkan tunjangan sebesar Rp. 600.000,- sedangkan karyawan wanita sebesar Rp. 350.000,-.
- Untuk karyawan yang menduduki posisi “Supervisor” mendapatkan insentif sebesar Rp. 1.000.000,- , posisi “Manajer” mendapatkan insentif sebesar Rp. 2.000.000,- dan posisi Direktur mendapat insentif Rp. 5.000.000,-.
- Bagi karyawan yang sudah menikah dan mempunyai anak mendapatkan tunjangan sebesar Rp. 350.000,- untuk anak pertama dan Rp 150.000,- untuk anak kedua dan selanjutnya. Sedangkan bagi karyawan yang berstatus “Duda” atau “Janda” dan mempunyai anak akan mendapatkan tunjangan sebesar Rp. 100.000,- untuk masing-masing anak.
- Dengan menggunakan fungsi IF dan VLOOK-UP atau HLOOK-UP dalam MS excel, buatlah tabel yang sesuai dengan cerita diatas.

# Assignment

no	nama	jenis kelamin	status	jabatan	jumlah anak	t khusus	t nikah	t jabatan	t anak	total
1	jojo	wanita	kawin	manajer	2	750000	350000	2000000	500000	3600000
2	joki	pria	janda	supervisor	3	1000000	600000	1000000	300000	2900000
3	jontor	pria	bujang	direktur	2	1000000	600000	5000000	200000	6800000

tunjangan jabatan	
jabatan	tunjangan
direktur	5000000
manajer	2000000
supervisor	1000000

tunjangan khusus	kelamin	kawin
pria	1000000	600000
wanita	750000	350000

tunjangan anak		
status	anak 1	anak 2 dst
kawin	350000	150000
tidak kawin	100000	100000

- Untuk tunjangan anak ke 2 dst bagi yg tidak kawin dirubah menjadi 50.000 ??

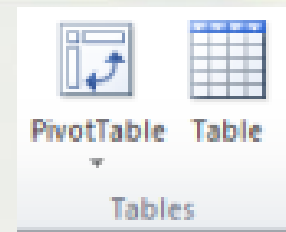
# PIVOT TABLE

- Excel's Pivot Table feature is an incredibly powerful tool that makes it easy to tabulate and summarise data in your spreadsheets, particularly if your data changes a lot. If you are finding yourself writing lots of formulas to summarise data in Excel (using functions such as SUMIF and COUNTIF) then Pivot Tables can save you a lot of time and work and give you insights into your data that are otherwise too hard to discover.

# First – data is ready

	A	B	C	D	E	F
1	<b>Sales Data</b>					
2	<b>January - February</b>					
3	Number of rows:	688				
4						
5	<b>Date</b>	<b>Salesperson</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit cost</b>	<b>Sales</b>
6	Mon, 02 Jan 2012	Mike	Washing machine	5	500	2500
7	Mon, 02 Jan 2012	Mike	Dishwasher	5	350	1750
8	Mon, 02 Jan 2012	Mike	Microwave	14	220	3080
9	Mon, 02 Jan 2012	Mike	Refrigerator	7	650	4550
10	Mon, 02 Jan 2012	Abdul	Washing machine	5	500	2500
11	Mon, 02 Jan 2012	Abdul	Dishwasher	13	350	4550
12	Mon, 02 Jan 2012	Abdul	Microwave	14	220	3080
13	Mon, 02 Jan 2012	Abdul	Refrigerator	7	650	4550
14	Mon, 02 Jan 2012	Leila	Washing machine	12	500	6000
15	Mon, 02 Jan 2012	Leila	Dishwasher	5	350	1750
16	Mon, 02 Jan 2012	Leila	Microwave	9	220	1980
17	Mon, 02 Jan 2012	Leila	Refrigerator	4	650	2600
18	Mon, 02 Jan 2012	Maryanne	Washing machine	8	500	4000
19	Mon, 02 Jan 2012	Maryanne	Dishwasher	12	350	4200
20	Mon, 02 Jan 2012	Maryanne	Microwave	8	220	1760
21	Mon, 02 Jan 2012	Maryanne	Refrigerator	9	650	5850
22	Tue, 03 Jan 2012	Mike	Washing machine	4	500	2000
23	Tue, 03 Jan 2012	Mike	Dishwasher	13	350	4550


# Create Pivot table



Create PivotTable

Choose the data that you want to analyze

Select a table or range

Table/Range:  


Use an external data source

Connection name:


Choose where you want the PivotTable report to be placed

New Worksheet

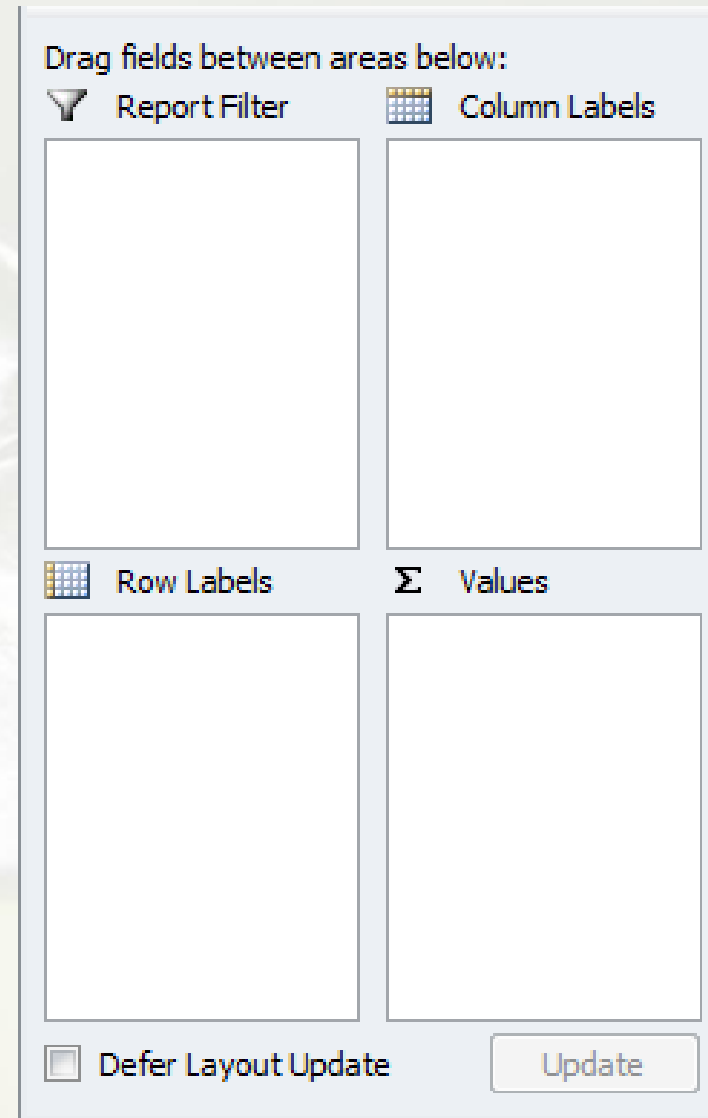
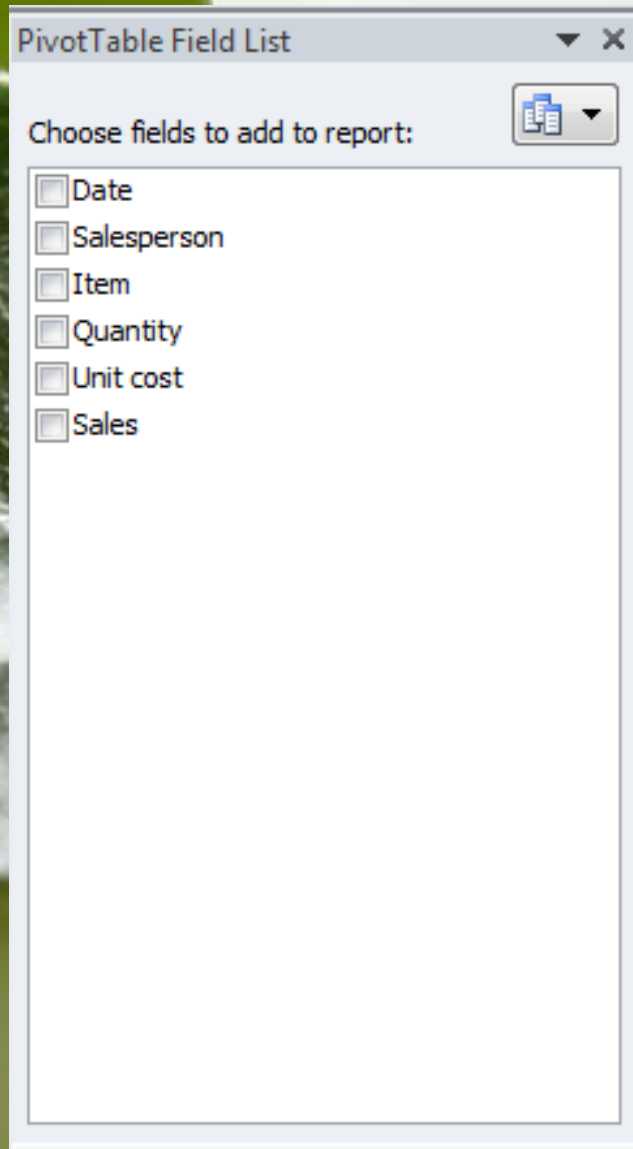
Existing Worksheet

Location:  

# Design your layout

	A	B	C
1			
2			
3	<div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 10px;">PivotTable1</div> <p style="text-align: center;">Click in this area to work with the PivotTable report</p> <div style="text-align: center; margin-top: 20px;"></div>		
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

# Field list




# Selected field list


PivotTable Field List


Choose fields to add to report:


- Date**
- Salesperson**
- Item**
- Quantity**
- Unit cost
- Sales

Drag fields between areas below:

 Report Filter

 Column Labels

 Row Labels

 Values

Item

Date

Salesperson

Sum of Quantity

Defer Layout Update

Update



# Finished pivot table

	A	B	C	D	E	F
1						
2						
3	<b>Sum of Quantity</b>	<b>Column Labels</b> ▼				
4	<b>Row Labels</b> ▼	<b>Dishwasher</b>	<b>Microwave</b>	<b>Refrigerator</b>	<b>Washing machine</b>	<b>Grand Total</b>
5	☰ <b>Mon, 02 Jan 2012</b>	<b>35</b>	<b>45</b>	<b>27</b>	<b>30</b>	<b>137</b>
6	Abdul	13	14	7	5	39
7	Leila	5	9	4	12	30
8	Maryanne	12	8	9	8	37
9	Mike	5	14	7	5	31
10	☰ <b>Tue, 03 Jan 2012</b>	<b>40</b>	<b>43</b>	<b>29</b>	<b>23</b>	<b>135</b>
11	Abdul	6	13	10	5	34
12	Leila	13	2	1	5	21
13	Maryanne	8	14	9	9	40
14	Mike	13	14	9	4	40
15	☰ <b>Wed, 04 Jan 2012</b>	<b>21</b>	<b>44</b>	<b>20</b>	<b>19</b>	<b>104</b>
16	Abdul	2	14	3	2	21
17	Leila	13	10	5	2	30
18	Maryanne	2	6	7	11	26
19	Mike	4	14	5	4	27

# Be advice!

- Do practice a lot.
- Your Final Exam would be Practice exam.

