

7/20/2025

MICROSOFT EXCEL



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“YOUNGDEV-INTERNS” INTERNSHIP REPORT

BASIC TASK – WEEK 1

INTRODUCTION:

In Week 1 of my internship learning plan, I focused on understanding the basic features of Microsoft Excel. This included exploring the interface, practicing data entry, applying formatting, and learning simple formulas.

Topics covered this week are:

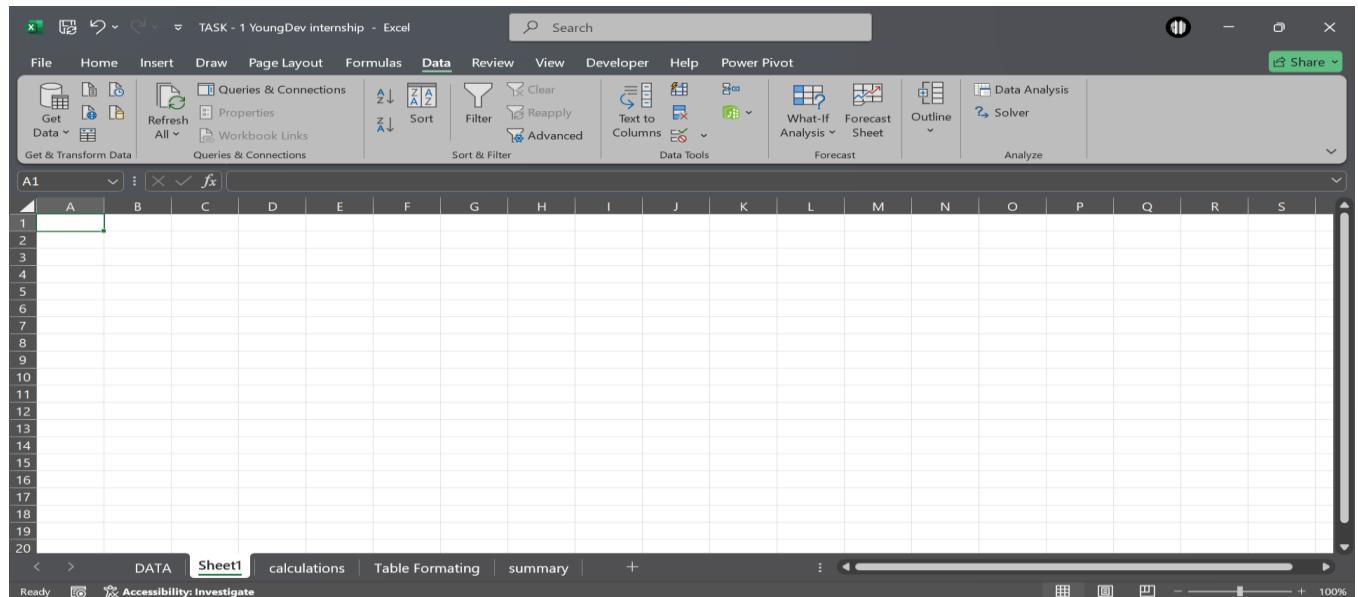
1. EXPLORING THE INTERFACE:

Rows: Horizontal lines in a worksheet, identified by numbers (1, 2, 3...).

Columns: Vertical lines in a worksheet, identified by letters (A, B, C...).

Cells: The small boxes where a row and a column intersect (for example, A1 or B3). This is where you enter data.

Ribbon: The toolbar at the top of Excel containing tabs (Home, Insert, Formulas, etc.) and groups of commands.



2. DATA ENTRY AND FORMATTING:

Data Entry:

I used the “MONTHLY ORDERS DELIVERY DATA BY BLOCKS” from the dataset to analyze overall performance, area-wise trends, and monthly patterns. The dataset contained details such as delivery dates, areas (Blocks A to E), the number of orders, order amounts, average delivery times, delay times, and the number of riders.

Formatting:

I applied by selecting the header row and applied Bold from the Home ribbon to make the headings clear. I use text alignment in all columns by using the Centre Alignment button on the Home ribbon. I create a table by clicking the shortcut key Ctrl + T, I change table color form blue to orange by selecting table color from Styles option.

The screenshot shows the Microsoft Excel interface with the 'Home' tab selected. A table titled 'Monthly Orders Delivery Analysis by Block' is displayed. The table has 18 rows and 7 columns. The columns are labeled: Date, Area, No. of Orders, Order Amount, Delivery Time (avg. min), delay time, and No of riders. The first row (header) is bolded and centered. The entire table is highlighted with a light orange background. The status bar at the bottom indicates 'Count: 7'.

Monthly Orders Delivery Analysis by Block						
Date	Area	No. of Orders	Order Amount	Delivery Time (avg. min)	delay time	No of riders
1-Jan	Block A	28	28000	38	8	4
1-Jan	Block B	29	29000	39	9	4
1-Jan	Block C	25	25000	35	5	3
1-Jan	Block D	27	27000	37	7	3
1-Jan	Block E	30	30000	40	10	4
1-Jan	Block F	28	28000	38	8	4
1-Feb	Block A	30	30000	40	10	4
1-Feb	Block B	29	29000	39	9	4
1-Feb	Block C	26	26000	36	6	3
1-Feb	Block D	30	30000	40	10	3
1-Feb	Block E	25	25000	35	5	4
1-Feb	Block F	28	28000	38	8	4
1-Mar	Block A	28	28000	38	8	4
1-Mar	Block B	30	30000	40	10	4
1-Mar	Block C	27	27000	37	7	3

The screenshot shows the Microsoft Excel interface with the 'Home' tab selected. The same table is displayed, but the 'No of riders' column (G) now has a green background for the first 10 rows (rows 4 to 13). The status bar at the bottom indicates 'Count: 7'.

Monthly Orders Delivery Analysis by Block						
Date	Area	No. of Orders	Order Amount	Delivery Time (avg. min)	delay time	No of riders
1-Jan	Block A	28	28000	38	8	4
1-Jan	Block B	29	29000	39	9	4
1-Jan	Block C	25	25000	35	5	3
1-Jan	Block D	27	27000	37	7	3
1-Jan	Block E	30	30000	40	10	4
1-Jan	Block F	28	28000	38	8	4
1-Feb	Block A	30	30000	40	10	4
1-Feb	Block B	29	29000	39	9	4
1-Feb	Block C	26	26000	36	6	3
1-Feb	Block D	30	30000	40	10	3
1-Feb	Block E	25	25000	35	5	4
1-Feb	Block F	28	28000	38	8	4
1-Mar	Block A	28	28000	38	8	4
1-Mar	Block B	30	30000	40	10	4

3. BASIC FORMULAS:

I use the following Formulas and functions that are the equations that perform calculations in Excel.

=SUM(C5:C76)	To calculate the total no of orders
=MAX(E5:E76)	To calculate the maximize delivery time
=MIN(E5:E76)	To calculate the minimum delivery time
=MIN(F5:F76)	To calculate the minimum delay time
=MAX(F5:F76)	To calculate the maximum delay time
=AVERAGE(F5:F76)	To calculate the Average delay time
=AVERAGE(D5:D76)	To calculate the Average order Amount
=MAX(D5:D76)	To calculate the Maximum order amount
=MIN(D5:D76)	To calculate the minimum order amount
=SUM(G5:G76)	To calculate the Total no of riders
=SUM(D5:D76)	To calculate the Total order amount
=J16/J15	To calculate the average order amount per rider

The screenshot shows an Excel spreadsheet titled "TASK - 1 YoungDev internship - Excel". The ribbon menu is visible at the top, and the formula bar shows "L12". The data table consists of columns: Date, Area, No. of Orders, Order Amount, Delivery Time (avg. min), delay time, and No of riders. A green header row labeled "CALCULATIONS" contains formulas corresponding to the ones listed in the table above. The formulas include:

- total no of orders =SUM(C3:C74)
- maximum delivery time =MAX(E3:E74)
- minimum delivery time =MIN(E3:E74)
- minimum delay time =MIN(F3:F74)
- maximum delay time =MAX(F3:F74)
- Average delay time =AVERAGE(F3:F74)
- Average order Amount =AVERAGE(D3:D74)
- Maximum order amount =MAX(D3:D74)
- minimum order amount =MIN(D3:D74)
- Total no of riders =SUM(G3:G74)
- Total order amount =SUM(D3:D74)
- average order amount per rider =J16/J15

 The status bar at the bottom shows "Ready", "Accessibility: Investigate", and a zoom level of 75%.

4. PRODUCTIVITY TOOLS:

Autofill:

A feature that automatically fills cells with data or formulas based on a pattern. (For example, dragging the corner of a cell with “1” and “2” will fill the next cells with 3, 4, 5...).

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into columns: Date, Area, No. of Orders, Order Amount, Delivery Time (avg. min), and No of riders. The first six rows are highlighted with a light gray background, indicating they are selected for autofilling. A small black plus sign icon is located at the bottom right corner of the selected range, indicating it is ready for dragging to fill more cells.

Date	Area	No. of Orders	Order Amount	Delivery Time (avg. min)	No of riders
1-Jan	Block A	28	28000	38	8
1-Jan	Block B	29	29000	39	9
1-Jan	Block C	25	25000	35	5
1-Jan	Block D	27	27000	37	7
1-Jan	Block E	30	30000	40	10
1-Jan	Block F	28	28000	38	8
1-Feb		30	30000	40	10
1-Feb		29	29000	39	9
1-Feb		26	26000	36	6
1-Feb		30	30000	40	10
1-Feb		25	25000	35	5
1-Feb		28	28000	38	8
1-Mar		28	28000	38	8
1-Mar		30	30000	40	10
1-Mar		27	27000	37	7
1-Mar		27	27000	37	7
1-Mar		27	27000	37	7

Sorting:

Organizing data in ascending (A to Z or smallest to largest) or descending (Z to A or largest to smallest) order.

The screenshot shows the "Sort" dialog box in Microsoft Excel. It includes options for adding levels, deleting levels, copying levels, and setting headers. The "My data has headers" checkbox is checked. The sorting criteria are set as follows:

Column	Sort On	Order
Sort by	Delivery Time (avg. min)	Cell Values Largest to Smallest
Then by	No. of Orders	Cell Values Smallest to Largest
Then by	Area	Cell Values A to Z

At the bottom are "OK" and "Cancel" buttons.

Filtering:

Displaying only rows that meet specific criteria while hiding others. After entering data, I selected the whole table and applied Filter from the Data tab. Choose Sort by Area (Block E).

The screenshot shows a Microsoft Excel spreadsheet titled "TASK - 1 YoungDev internship". The data is organized into two main sections: "Analysis by Block" and "DATA". The "Analysis by Block" section contains a table with columns: Date, Area, Time (avg. min), delay time, and No of riders. The "DATA" section contains a list of dates grouped by area. A filter dialog box is open over the "Analysis by Block" section, specifically the "Sort by Area" dropdown menu. The menu includes options like "Sort A to Z", "Sort Z to A", "Sort by Color", "Sheet View", "Clear Filter From 'Area'", "Filter by Color", and "Text Filters". Under "Text Filters", there is a search bar and a list of categories: "(Select All)", "Block A", "Block B", "Block C", "Block D", "Block E" (which is checked with a blue square), and "Block F". The "OK" button at the bottom of the dialog box is highlighted.

Date	Area	Time (avg. min)	delay time	No of riders
1-Jan	Block E	40	10	4
1-Feb	Block E	35	5	4
1-Mar	Block E	37	7	4
1-Apr	Block E	39	9	4
1-May	Block E	40	10	4
1-Jun	Block E	37	7	4
1-Jul	Block E	39	9	4
1-Aug	Block E	38	8	4
1-Sep	Block E	35	5	4
1-Oct	Block E	38	8	4
1-Nov	Block E	35	5	4
1-Dec	Block E	37	7	4

CONCLUSION:

By the end of Week 1, I gained a solid understanding of Excel's basic interface and core functions. I used these tools to arrange and view my data efficiently. Here I learned and gained experience to enter data, format it for clarity, and use simple formulas to analyze information. These foundational skills will be valuable for handling more advanced Excel tasks in the coming weeks.

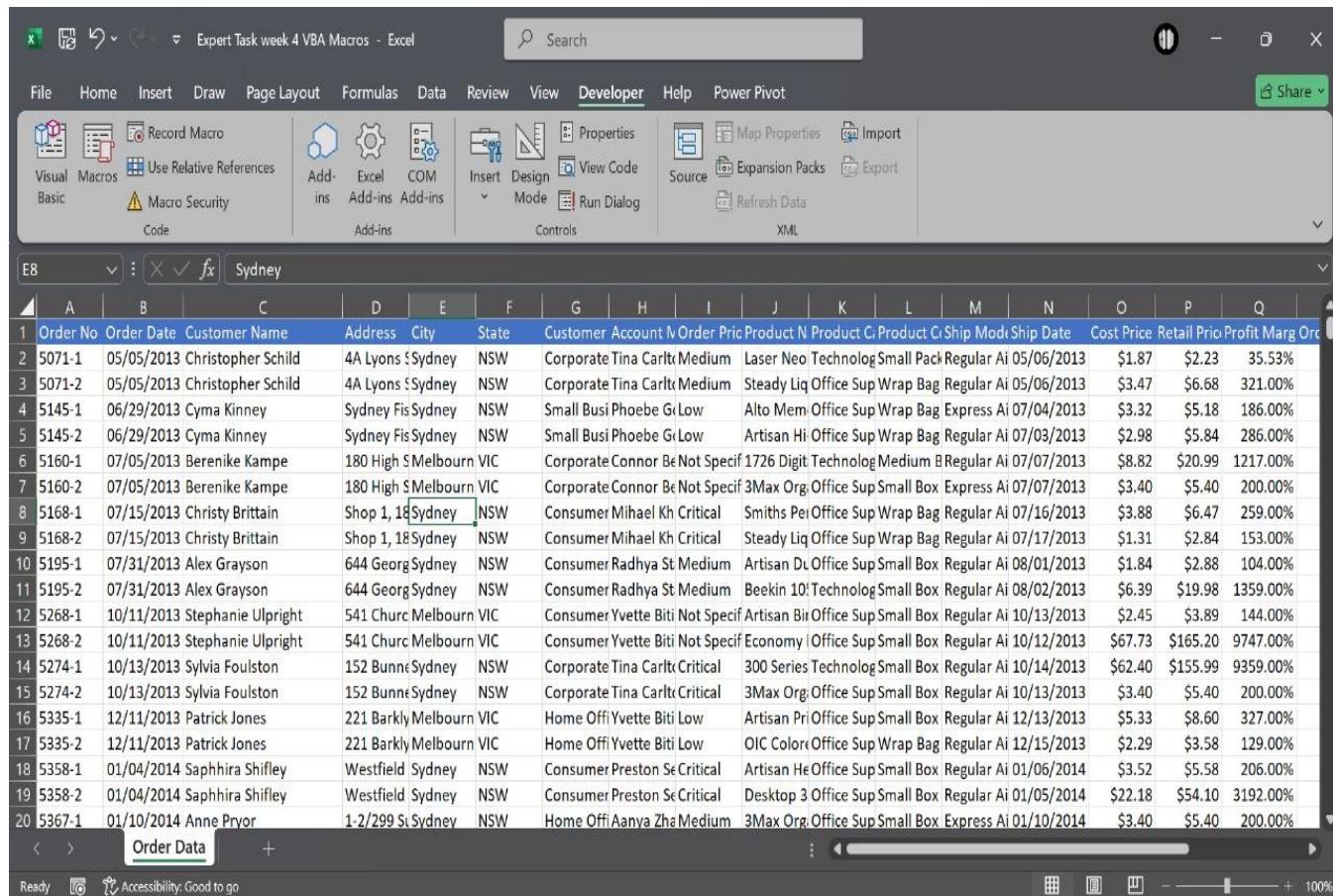
INTERMEDIATE – TASK WEEK 2

INTRODUCTION:

In week 2 of my internship, I used customer orders data, which includes order number, customer name, shipping details, and the products ordered.

1. COLUMNS:

- Order No. & Date: Identifies and timestamps each transaction.
- Customer Name & Address: Identifies the buyer and delivery location.
- Customer Type & Account Manager: Used for segmentation and reporting.
- Product Name, Quantity, Price: Helps calculate costs and profits.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	Order No	Order Date	Customer Name	Address	City	State	Customer Account	N Order Pric	Product N	Product G	Product C	Ship Mod	Ship Date	Cost Price	Retail Pric	Profit Marg	Ort	
2	5071-1	05/05/2013	Christopher Schild	4A Lyons	Sydney	NSW	Corporate Tina Carl	t Medium	Laser Neo Technolog	Small Pack Regular	Ai	05/06/2013	\$1.87	\$2.23	35.53%			
3	5071-2	05/05/2013	Christopher Schild	4A Lyons	Sydney	NSW	Corporate Tina Carl	t Medium	Steady Liq Office Sup	Wrap Bag Regular	Ai	05/06/2013	\$3.47	\$6.68	321.00%			
4	5145-1	06/29/2013	Cyma Kinney	Sydney Fis	Sydney	NSW	Small Busi Phoebe	G Low	Alto Mem Office Sup	Wrap Bag Express	Ai	07/04/2013	\$3.32	\$5.18	186.00%			
5	5145-2	06/29/2013	Cyma Kinney	Sydney Fis	Sydney	NSW	Small Busi Phoebe	G Low	Artisan Hi Office Sup	Wrap Bag Regular	Ai	07/03/2013	\$2.98	\$5.84	286.00%			
6	5160-1	07/05/2013	Berenike Kampe	180 High S	Melbourn	VIC	Corporate Connor	Be Not Specif	1726 Digit Technolog	Medium B	Regular	Ai	07/07/2013	\$8.82	\$20.99	1217.00%		
7	5160-2	07/05/2013	Berenike Kampe	180 High S	Melbourn	VIC	Corporate Connor	Be Not Specif	3Max Org Office Sup	Small Box	Express	Ai	07/07/2013	\$3.40	\$5.40	200.00%		
8	5168-1	07/15/2013	Christy Brittain	Shop 1, 18	Sydney	NSW	Consumer Mihael Kh	Critical	Smiths Pei Office Sup	Wrap Bag Regular	Ai	07/16/2013	\$3.88	\$6.47	259.00%			
9	5168-2	07/15/2013	Christy Brittain	Shop 1, 18	Sydney	NSW	Consumer Mihael Kh	Critical	Steady Liq Office Sup	Wrap Bag Regular	Ai	07/17/2013	\$1.31	\$2.84	153.00%			
10	5195-1	07/31/2013	Alex Grayson	644 Georg	Sydney	NSW	Consumer Radhya St	Medium	Artisan Dl Office Sup	Small Box	Regular	Ai	08/01/2013	\$1.84	\$2.88	104.00%		
11	5195-2	07/31/2013	Alex Grayson	644 Georg	Sydney	NSW	Consumer Radhya St	Medium	Beekin 10! Technolog	Small Box	Regular	Ai	08/02/2013	\$6.39	\$19.98	1359.00%		
12	5268-1	10/11/2013	Stephanie Ulpright	541 Churc	Melbourn	VIC	Consumer Yvette Biti	Not Specif	Artisan Bir Office Sup	Small Box	Regular	Ai	10/13/2013	\$2.45	\$3.89	144.00%		
13	5268-2	10/11/2013	Stephanie Ulpright	541 Churc	Melbourn	VIC	Consumer Yvette Biti	Not Specif	Economy Office Sup	Small Box	Regular	Ai	10/12/2013	\$67.73	\$165.20	9747.00%		
14	5274-1	10/13/2013	Sylvia Foulston	152 Bunne	Sydney	NSW	Corporate Tina Carl	t Critical	300 Series Technolog	Small Box	Regular	Ai	10/14/2013	\$62.40	\$155.99	9359.00%		
15	5274-2	10/13/2013	Sylvia Foulston	152 Bunne	Sydney	NSW	Corporate Tina Carl	t Critical	3Max Org Office Sup	Small Box	Regular	Ai	10/13/2013	\$3.40	\$5.40	200.00%		
16	5335-1	12/11/2013	Patrick Jones	221 Barkly	Melbourn	VIC	Home Offi	Yvette Biti Low	Artisan Pri Office Sup	Small Box	Regular	Ai	12/13/2013	\$5.33	\$8.60	327.00%		
17	5335-2	12/11/2013	Patrick Jones	221 Barkly	Melbourn	VIC	Home Offi	Yvette Biti Low	OIC Color	Office Sup	Wrap Bag	Regular	Ai	12/15/2013	\$2.29	\$3.58	129.00%	
18	5358-1	01/04/2014	Saphira Shifley	Westfield	Sydney	NSW	Consumer Preston Se	Critical	Artisan He Office Sup	Small Box	Regular	Ai	01/06/2014	\$3.52	\$5.58	206.00%		
19	5358-2	01/04/2014	Saphira Shifley	Westfield	Sydney	NSW	Consumer Preston Se	Critical	Desktop 3 Office Sup	Small Box	Regular	Ai	01/05/2014	\$22.18	\$54.10	3192.00%		
20	5367-1	01/10/2014	Anne Pryor	1-2/299 St	Sydney	NSW	Home Offi	Annya Zha	Medium	3Max Org Office Sup	Small Box	Express	Ai	01/10/2014	\$3.40	\$5.40	200.00%	

- Discount %, Shipping Cost, Final Total: All adjustments are included.
- Reading and analyzing structured sales data.
- Identifying meaningful information from multiple columns.
- Preparing for calculations like total price, discount value, and profit margin.

2. SALES 2015:

On sheet 2, there is the sales performance of different Account Managers during 2015.

- Entered and calculated sales data per quarter (Q1–Q4).
- Used SUM to get the total annual sales.
- Found Average, Best, and Worst quarters.
- Applied a Commission Rate of 4% to total sales.
- For absolute reference, created a Commission_Rate named range.
- Applying formulas like =SUM(), =AVERAGE(), =MAX(), =MIN().
- Understanding performance-based commission structures.
- Interpreting quarterly business reports.

Sales Summary 2015									Commission_Rate	
Acct Managers	Qtr1	Qtr2	Qtr3	Qtr4	Total	Average	Best	Worst	Commission	
4 Aanya Zhang	2011.6843	934.4522	565.2588	115.3243	=SUM(B4:E4)	=AVERAGE(B4:E4)	=MAX(B4:E4)	=MIN(B4:E4)	=F4*Commission_Rate	
5 Charlie Bui	2084.9652	4484.095	283.01	6514.1514	=SUM(B5:E5)	=AVERAGE(B5:E5)	=MAX(B5:E5)	=MIN(B5:E5)	=F5*Commission_Rate	
6 Connor Betts	6305.1606	26132.1453	8247.2496	1193.236	=SUM(B6:E6)	=AVERAGE(B6:E6)	=MAX(B6:E6)	=MIN(B6:E6)	=F6*Commission_Rate	
7 Leighton Forrest	19011.9137	87.7582	9930.6488	11818.5708	=SUM(B7:E7)	=AVERAGE(B7:E7)	=MAX(B7:E7)	=MIN(B7:E7)	=F7*Commission_Rate	
8 Mihael Khan	615.3678	23723.4113	27795.5778	14766.0699	=SUM(B8:E8)	=AVERAGE(B8:E8)	=MAX(B8:E8)	=MIN(B8:E8)	=F8*Commission_Rate	
9 Natasha Song	9300.5418	4554.8502	6488.6939	887.7878	=SUM(B9:E9)	=AVERAGE(B9:E9)	=MAX(B9:E9)	=MIN(B9:E9)	=F9*Commission_Rate	
10 Nicholas Fernandes	3125.13	4225.6978	13466.7004	57.2424	=SUM(B10:E10)	=AVERAGE(B10:E10)	=MAX(B10:E10)	=MIN(B10:E10)	=F10*Commission_Rate	
11 Phoebe Gour	14342.3604	714.0516	190.985	6941.6487	=SUM(B11:E11)	=AVERAGE(B11:E11)	=MAX(B11:E11)	=MIN(B11:E11)	=F11*Commission_Rate	
12 Preston Senome	335.1582	5537.6764	495.0122	130.588	=SUM(B12:E12)	=AVERAGE(B12:E12)	=MAX(B12:E12)	=MIN(B12:E12)	=F12*Commission_Rate	
13 Radhya Staples	0	52.2707	0	21251.0071	=SUM(B13:E13)	=AVERAGE(B13:E13)	=MAX(B13:E13)	=MIN(B13:E13)	=F13*Commission_Rate	
14 Samantha Chairs	231.2012	37798.926	1055.4499	336.8848	=SUM(B14:E14)	=AVERAGE(B14:E14)	=MAX(B14:E14)	=MIN(B14:E14)	=F14*Commission_Rate	
15 Stevie Bacata	813.4562	0	0	0	=SUM(B15:E15)	=AVERAGE(B15:E15)	=MAX(B15:E15)	=MIN(B15:E15)	=F15*Commission_Rate	
16 Tina Carlton	3789.4186	861.7904	7647.7537	14676.7958	=SUM(B16:E16)	=AVERAGE(B16:E16)	=MAX(B16:E16)	=MIN(B16:E16)	=F16*Commission_Rate	
17 Yvette Biti	26780.1785	912.0136	2076.8078	5782.6638	=SUM(B17:E17)	=AVERAGE(B17:E17)	=MAX(B17:E17)	=MIN(B17:E17)	=F17*Commission_Rate	
18 Total		=SUM(B4:B17)	=SUM(C4:C17)	=SUM(D4:D17)	=SUM(E4:E17)	=SUM(F4:F17)	=SUM(G4:G17)	=SUM(H4:H17)	=SUM(I4:I17)	=SUM(J4:J17)
19										
20										
21										
22										
23										
24										

3. SALES 2016:

- Similar to the 2015 sheet, but with new data and a 5% commission rate.
- Worked on new values for each quarter for the year 2016.
- For calculating commission used Absolute Reference adding the dollar sign by pressing the F4 key to make the cell absolute.
- Using consistent formula structures with new data.
- Identifying growth or decline in performance.
- Adjusting calculations based on different percentages.

Sales Summary 2016

										Commission Rate
Acct Managers	Qtr1	Qtr2	Qtr3	Qtr4	Total	Average	Best	Worst	Commission	
Aanya Zhang	5187.9	7627.17	28867.26	742.53	=SUM(B5:E5)	=AVERAGE(B5:E5)	=MAX(B5:E5)	=MIN(B5:E5)	=F5*\$J\$1	
Charlie Bui	24271.31	130.78	116.61	355.15	=SUM(B6:E6)	=AVERAGE(B6:E6)	=MAX(B6:E6)	=MIN(B6:E6)	=F6*\$J\$1	
Connor Betts	854.08	20123.65	3050.18	4373.98	=SUM(B7:E7)	=AVERAGE(B7:E7)	=MAX(B7:E7)	=MIN(B7:E7)	=F7*\$J\$1	
Leighton Forrest	815.58	1129.69	327.02	16169.12	=SUM(B8:E8)	=AVERAGE(B8:E8)	=MAX(B8:E8)	=MIN(B8:E8)	=F8*\$J\$1	
Mihael Khan	425.78	981.27	596.7	470.74	=SUM(B9:E9)	=AVERAGE(B9:E9)	=MAX(B9:E9)	=MIN(B9:E9)	=F9*\$J\$1	
Natasha Song	5080.74	6259.31	4265.86	4956.43	=SUM(B10:E10)	=AVERAGE(B10:E10)	=MAX(B10:E10)	=MIN(B10:E10)	=F10*\$J\$1	
Nicholas Fernandes	21787.86	1533.62	2191.42	2384.04	=SUM(B11:E11)	=AVERAGE(B11:E11)	=MAX(B11:E11)	=MIN(B11:E11)	=F11*\$J\$1	
Phoebe Gour	5117.84	12156.6	351.06	15653.93	=SUM(B12:E12)	=AVERAGE(B12:E12)	=MAX(B12:E12)	=MIN(B12:E12)	=F12*\$J\$1	
Preston Senome	1326.07	1415.98	2314.11	2817.6	=SUM(B13:E13)	=AVERAGE(B13:E13)	=MAX(B13:E13)	=MIN(B13:E13)	=F13*\$J\$1	
Radhya Staples	0	3.32	10373.59	206.16	=SUM(B14:E14)	=AVERAGE(B14:E14)	=MAX(B14:E14)	=MIN(B14:E14)	=F14*\$J\$1	
Samantha Chairs	2233.62	2005.7	1542.68	4921.92	=SUM(B15:E15)	=AVERAGE(B15:E15)	=MAX(B15:E15)	=MIN(B15:E15)	=F15*\$J\$1	
Stevie Bacata	0	91.1	0	0	=SUM(B16:E16)	=AVERAGE(B16:E16)	=MAX(B16:E16)	=MIN(B16:E16)	=F16*\$J\$1	
Tina Carlton	17247.36	2512.24	7003.82	2952.73	=SUM(B17:E17)	=AVERAGE(B17:E17)	=MAX(B17:E17)	=MIN(B17:E17)	=F17*\$J\$1	
Yvette Biti	2252.16	1476.92	3293.39	7731.78	=SUM(B18:E18)	=AVERAGE(B18:E18)	=MAX(B18:E18)	=MIN(B18:E18)	=F18*\$J\$1	
Total					=SUM(F5:F18)	=SUM(G5:G18)	=SUM(H5:H18)	=SUM(I5:I18)	=SUM(J5:J18)	

4. SALES SUMMARY

Here I worked with multiple worksheets. This combined sheet summarizes the performance over both 2015 and 2016.

What's Included:

- Total Sales = 2015 + 2016 sales.
- Commission earned from both years combined.
- Consolidated table for each Account Manager.
- Cross-sheet referencing (pulling data from other sheets).

Sales 2015 and 2016

	2015 Sales	2016 Sales	Total Sales	Commission
Acct Managers				
Aanya Zhang	=Sales 2015!F4	=Sales 2016!F5	=SUM(B5:C5)	=Sales 2015!J4+Sales 2016!J5
Charlie Bui	=Sales 2015!F5	=Sales 2016!F6	=SUM(B6:C6)	=Sales 2015!J5+Sales 2016!J6
Connor Betts	=Sales 2015!F6	=Sales 2016!F7	=SUM(B7:C7)	=Sales 2015!J6+Sales 2016!J7
Leighton Forrest	=Sales 2015!F7	=Sales 2016!F8	=SUM(B8:C8)	=Sales 2015!J7+Sales 2016!J8
Mihael Khan	=Sales 2015!F8	=Sales 2016!F9	=SUM(B9:C9)	=Sales 2015!J8+Sales 2016!J9
Natasha Song	=Sales 2015!F9	=Sales 2016!F10	=SUM(B10:C10)	=Sales 2015!J9+Sales 2016!J10
Nicholas Fernandes	=Sales 2015!F10	=Sales 2016!F11	=SUM(B11:C11)	=Sales 2015!J10+Sales 2016!J11
Phoebe Gour	=Sales 2015!F11	=Sales 2016!F12	=SUM(B12:C12)	=Sales 2015!J11+Sales 2016!J12
Preston Senome	=Sales 2015!F12	=Sales 2016!F13	=SUM(B13:C13)	=Sales 2015!J12+Sales 2016!J13
Radhya Staples	=Sales 2015!F13	=Sales 2016!F14	=SUM(B14:C14)	=Sales 2015!J13+Sales 2016!J14
Samantha Chairs	=Sales 2015!F14	=Sales 2016!F15	=SUM(B15:C15)	=Sales 2015!J14+Sales 2016!J15
Stevie Bacata	=Sales 2015!F15	=Sales 2016!F16	=SUM(B16:C16)	=Sales 2015!J15+Sales 2016!J16
Tina Carlton	=Sales 2015!F16	=Sales 2016!F17	=SUM(B17:C17)	=Sales 2015!J16+Sales 2016!J17
Yvette Biti	=Sales 2015!F17	=Sales 2016!F18	=SUM(B18:C18)	=Sales 2015!J17+Sales 2016!J18
Total	=SUM(B4:B17)	=SUM(C4:C17)	=SUM(D4:D17)	=SUM(E4:E17)

Sales 2015 & 2016

5. COUNTIF FUNCTIONS

Here I used =COUNTIF() to count how many orders were placed in each state.

- Used COUNTIF to count "NSW", "VIC", etc.
- Interpreted which regions had the most demand.
- =COUNTIF(range, criteria) formula
- Region-wise data summarization

The screenshot shows a Microsoft Excel spreadsheet titled 'YoungDev Intermediate Task week 2 - Excel'. The ribbon is visible at the top with tabs like File, Home, Insert, Draw, Page Layout, Formulas, Data, Review, View, Developer, Help, and Power Pivot. The 'Formulas' tab is selected. The main area contains several rows of data:

Number of Orders by State	
VIC	=COUNTIFS(State,A5)
NSW	=COUNTIFS(State,A6)
Number of Orders by Customer Type	
Home Office	=COUNTIFS(Customer_Type,A11)
Consumer	=COUNTIFS(Customer_Type,A12)
Small Business	=COUNTIFS(Customer_Type,A13)
Corporate	=COUNTIFS(Customer_Type,A14)
Orders Quantity Over 30	
	=COUNTIFS(Order_Quantity,">30")
Order Total below 50	
	=COUNTIFS(Order_Total,"<50")

The status bar at the bottom shows tabs for 'Orders Data', 'Sales 2015', 'Sales 2016', 'Sales Summary', 'Countif functions' (which is the active tab), and 'Vlook'. The zoom level is set to 100%.

6. VLOOKUP FUNCTIONS

This sheet includes three ways to use the VLOOKUP function:

- **Basic VLOOKUP:** Found a price or product using an Order No.
- **With Data Validation:** Used a dropdown to select an order, and fetched the product data automatically.
- **With Named Ranges:** Replaced cell ranges like with readable names for easier formulas.

Screenshot of Microsoft Excel showing a vertical VLOOKUP function example and a large dataset.

VLOOKUP Function (Vertical)

	A	B	C	D	E	F	G	H	I
1									
2	vlookup		5195-2		=VLOOKUP(D2,A7:X1046,16,0)				
3	vlookup with Data Validation		6582-1		=VLOOKUP(D3,A7:X1046,18,0)				
4	Vlookup with Named Ranges		5856-1		=VLOOKUP(D4,Data_Table,16,0)				
5									
6									
7	Order No	Order Date	Customer Name	Address	City	State	Customer Type	Account Manager	Order Priority
8	5071-1	41399	Christopher Scl	4A Lyons St,Strathfield Sydney		NSW	Corporate	Tina Carlton	Medium
9	5071-2	41399	Christopher Scl	4A Lyons St,Strathfield Sydney		NSW	Corporate	Tina Carlton	Medium
10	5145-1	41454	Cyma Kinney	Sydney Fish Market, Sydney		NSW	Small Business	Phoebe Gour	Low
11	5145-2	41454	Cyma Kinney	Sydney Fish Market, Sydney		NSW	Small Business	Phoebe Gour	Low
12	5160-1	41460	Berenike Kamp	180 High Street,Winc Melbourne		VIC	Corporate	Connor Betts	Not Specified
13	5160-2	41460	Berenike Kamp	180 High Street,Winc Melbourne		VIC	Corporate	Connor Betts	Not Specified
14	5168-1	41470	Christy Brittain	Shop 1, 186-190 Chu Sydney		NSW	Consumer	Mihael Khan	Critical
15	5168-2	41470	Christy Brittain	Shop 1, 186-190 Chu Sydney		NSW	Consumer	Mihael Khan	Critical
16	5195-1	41486	Alex Grayson	644 George St,Sydney Sydney		NSW	Consumer	Radhya Staples	Medium
17	5195-2	41486	Alex Grayson	644 George St,Sydney Sydney		NSW	Consumer	Radhya Staples	Medium
18	5268-1	41558	Stephanie Ulpr	541 Church St,Richmond Melbourne		VIC	Consumer	Yvette Biti	Not Specified
19	5268-2	41558	Stephanie Ulpr	541 Church St,Richmond Melbourne		VIC	Consumer	Yvette Biti	Not Specified
20	5274-1	41560	Sylvia Foulston	152 Bunnerong Road Sydney		NSW	Corporate	Tina Carlton	Critical
21	5274-2	41560	Sylvia Foulston	152 Bunnerong Road Sydney		NSW	Corporate	Tina Carlton	Critical
22	5335-1	41619	Patrick Jones	221 Barkly St,St Kilda Melbourne		VIC	Home Office	Yvette Biti	Low
23	5335-2	41619	Patrick Jones	221 Barkly St,St Kilda Melbourne		VIC	Home Office	Yvette Biti	Low
24	5358-1	41643	Saphira Shiffler	Westfield Miranda, E Sydney		NSW	Consumer	Preston Senome	Critical
25	5358-2	41643	Saphira Shiffler	Westfield Miranda, E Sydney		NSW	Consumer	Preston Senome	Critical

Screenshot of Microsoft Excel showing a horizontal HLOOKUP function example and a large dataset.

Hlookup Function (Horizontal)

	A	B	C	D	E	F
1						
2	hlookup		Charlie Bui	=HLOOKUP(C2,B7:K11,3,0)		
3	hlookup with data validation		Natasha Song	=HLOOKUP(C3,B7:K11,5,0)		
4	hlookup with named ranges		Leighton Forrest	=HLOOKUP(C4,Horizontal_Table,3,0)		
5						
6						
7	Acct Managers	Anya Zhang	Charlie Bui	Connor Betts	Leighton Forrest	Mihael Khan
8	2015 Sales	=Sales 2015!B10	=Sales 2015!C10	=Sales 2015!D10	=Sales 2015!E10	=Sales 2015!F10
9	2016 Sales	=Sales 2016!C10	=Sales 2016!D10	=Sales 2016!E10	=Sales 2016!F10	=Sales 2016!G10
10	Total Sales	=SUM(B8:B9)	=SUM(C8:C9)	=SUM(D8:D9)	=SUM(E8:E9)	=SUM(F8:F9)
11	Commission	=Sales 2015!B14+Sales 2016!C14	=Sales 2015!C14+Sale	=Sales 2015!D14+Sales 2016!E14	=Sales 2015!E14+Sales 2016!F14	=Sales 2015!F14+Sales 2016!G14
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

7. HLOOKUP FUNCTIONS

- Navigating horizontally structured data
- Fetched values based on column headers (e.g., Charlie Bui's sales).
- Used Data Validation and Named Ranges too.
- Using =HLOOKUP(lookup_value, table_array, row_index, FALSE)
- Expanding lookup knowledge for various data layouts

8. LIST OF NAMED RANGES

This sheet documents all the Named Ranges you used in VLOOKUP, HLOOKUP, and dashboards.

- Named ranges make complex formulas cleaner and safer.
- Easier to update formulas without changing every reference.
- Creating Named Ranges (Formulas > Name Manager)
- Using names instead of cell references (e.g., =VLOOKUP(A1, Order_No, 2, FALSE))

The screenshot shows an Excel spreadsheet titled "YoungDev Intermediate Task week 2 - Excel". The active sheet is labeled "list of named ranges". Column A contains the names of the ranges, and column B contains their corresponding formulas. Some formulas include VLOOKUP and HLOOKUP functions. A callout bubble in the bottom right corner displays a point for "Corporate" with a value of 377 (36%).

Name	Formula
Account_Manager	=Orders Data!\$H\$6:\$H\$1044
Address	=Orders Data!\$D\$6:\$D\$1044
City	=Orders Data!\$E\$6:\$E\$1044
Commission_Rate	=\$Sales 2015!\$I\$1
Cost_Price	=Orders Data!\$G\$6:\$G\$1044
Customer_Name	=Orders Data!\$C\$6:\$C\$1044
Customer_Type	=Orders Data!\$G\$6:\$G\$1044
Data_Table	=Vlookup!\$A\$7:\$K\$1046
Discount	=Orders Data!\$U\$6:\$U\$1044
Discount_percentage	=Orders Data!\$T\$6:\$T\$1044
Horizontal_Table	=Hlookup!\$A\$7:\$K\$11
Order_Date	=Orders Data!\$B\$6:\$B\$1044
Order_No	=Orders Data!\$A\$6:\$A\$1044
Order_Priority	=Orders Data!\$I\$6:\$I\$1044
Order_Quantity	=Orders Data!\$R\$6:\$R\$1044
Order_Total	=Orders Data!\$V\$6:\$V\$1044
Product_Category	=Orders Data!\$K\$6:\$K\$1044
Product_Container	=Orders Data!\$L\$6:\$L\$1044
Product_Name	=Orders Data!\$I\$6:\$I\$1044
Profit_Margin	=Orders Data!\$O\$6:\$Q\$1044
Retail_Price	=Orders Data!\$P\$6:\$P\$1044
Ship_Date	=Orders Data!\$N\$6:\$N\$1044
Ship_Mode	=Orders Data!\$M\$6:\$M\$1044
Shipping_Cost	=Orders Data!\$W\$6:\$W\$1044
State	=Orders Data!\$F\$6:\$F\$1044
Sub_Total	=Orders Data!\$S\$6:\$S\$1044
Total	=Orders Data!\$X\$6:\$X\$1044

CONCLUSION:

In Week 2, I learned and practiced the following:

- Reading and analyzing order data
- Using formulas like SUM, COUNTIF, VLOOKUP, HLOOKUP
- Creating dashboards
- Applying logic to calculate sales, discounts, commissions
- Using Named Ranges to clean up formulas
- Creating data-driven reports with Excel

These tasks have helped me become more confident with Excel and understand how businesses manage and analyze data.

EXPERT – TASK WEEK 3

INTRODUCTION

This week, I focused on developing advanced Excel skills by working on a data analysis project using customer order data. The main goal was to create a professional, interactive dashboard that could summarize and analyze key business metrics using PivotTables, PivotCharts, Slicers, and advanced Excel formulas like INDEX-MATCH, TEXT, LEFT, RIGHT, and nested IF statements.

The project includes a business scenario where I needed to provide insights about customer behavior, shipping costs, and order volumes in a clear and interactive format.

1. DATA CLEANING & PREPARATION

- Reviewed raw data from the Orders Data sheet.
- Added new helper columns for analysis:
- Extracted order period using TEXT()
- Split Customer names by using LEFT() and RIGHT()
- Created a new column to classify Discount Level by using a **nested IF()**
- Used INDEX-MATCH to find related shipping costs for specific customer & totals

	Discount level	INDEXMATCH	Order Period	Customer's First Name	Customer's Last Name
3	=IF(O3>0.08, "High", IF(O3>0.04, "Medium", "Low"))	=INDEX(K3:K1041, MATCH("Cyma Kinney", C3:C1041, 0))	=TEXT(B3, "mmmmm yyyy")	=LEFT(C3,FIND(" ",C3)-1)	=RIGHT(C3,LEN(C3)-FIND(" ",C3))
4	=IF(O4>0.08, "High", IF(O4>0.04, "Medium", "Low"))	=INDEX(P3:P1041,MATCH("5160-2",A3:A1041,0))	=TEXT(B4, "mmmmm yyyy")	=LEFT(C4,FIND(" ",C4)-1)	=RIGHT(C4,LEN(C4)-FIND(" ",C4))
5	=IF(O5>0.08, "High", IF(O5>0.04, "Medium", "Low"))		=TEXT(B5, "mmmmm yyyy")	=LEFT(C5,FIND(" ",C5)-1)	=RIGHT(C5,LEN(C5)-FIND(" ",C5))
6	=IF(O6>0.08, "High", IF(O6>0.04, "Medium", "Low"))		=TEXT(B6, "mmmmm yyyy")	=LEFT(C6,FIND(" ",C6)-1)	=RIGHT(C6,LEN(C6)-FIND(" ",C6))
7	=IF(O7>0.08, "High", IF(O7>0.04, "Medium", "Low"))		=TEXT(B7, "mmmmm yyyy")	=LEFT(C7,FIND(" ",C7)-1)	=RIGHT(C7,LEN(C7)-FIND(" ",C7))
8	=IF(O8>0.08, "High", IF(O8>0.04, "Medium", "Low"))		=TEXT(B8, "mmmmm yyyy")	=LEFT(C8,FIND(" ",C8)-1)	=RIGHT(C8,LEN(C8)-FIND(" ",C8))
9	=IF(O9>0.08, "High", IF(O9>0.04, "Medium", "Low"))		=TEXT(B9, "mmmmm yyyy")	=LEFT(C9,FIND(" ",C9)-1)	=RIGHT(C9,LEN(C9)-FIND(" ",C9))
10	=IF(O10>0.08, "High", IF(O10>0.04, "Medium", "Low"))		=TEXT(B10, "mmmmm yyyy")	=LEFT(C10,FIND(" ",C10)-1)	=RIGHT(C10,LEN(C10)-FIND(" ",C10))
11	=IF(O11>0.08, "High", IF(O11>0.04, "Medium", "Low"))		=TEXT(B11, "mmmmm yyyy")	=LEFT(C11,FIND(" ",C11)-1)	=RIGHT(C11,LEN(C11)-FIND(" ",C11))
12	=IF(O12>0.08, "High", IF(O12>0.04, "Medium", "Low"))		=TEXT(B12, "mmmmm yyyy")	=LEFT(C12,FIND(" ",C12)-1)	=RIGHT(C12,LEN(C12)-FIND(" ",C12))
13	=IF(O13>0.08, "High", IF(O13>0.04, "Medium", "Low"))		=TEXT(B13, "mmmmm yyyy")	=LEFT(C13,FIND(" ",C13)-1)	=RIGHT(C13,LEN(C13)-FIND(" ",C13))
14	=IF(O14>0.08, "High", IF(O14>0.04, "Medium", "Low"))		=TEXT(B14, "mmmmm yyyy")	=LEFT(C14,FIND(" ",C14)-1)	=RIGHT(C14,LEN(C14)-FIND(" ",C14))
15	=IF(O15>0.08, "High", IF(O15>0.04, "Medium", "Low"))		=TEXT(B15, "mmmmm yyyy")	=LEFT(C15,FIND(" ",C15)-1)	=RIGHT(C15,LEN(C15)-FIND(" ",C15))
16	=IF(O16>0.08, "High", IF(O16>0.04, "Medium", "Low"))		=TEXT(B16, "mmmmm yyyy")	=LEFT(C16,FIND(" ",C16)-1)	=RIGHT(C16,LEN(C16)-FIND(" ",C16))
17	=IF(O17>0.08, "High", IF(O17>0.04, "Medium", "Low"))		=TEXT(B17, "mmmmm yyyy")	=LEFT(C17,FIND(" ",C17)-1)	=RIGHT(C17,LEN(C17)-FIND(" ",C17))
18	=IF(O18>0.08, "High", IF(O18>0.04, "Medium", "Low"))		=TEXT(B18, "mmmmm yyyy")	=LEFT(C18,FIND(" ",C18)-1)	=RIGHT(C18,LEN(C18)-FIND(" ",C18))
19	=IF(O19>0.08, "High", IF(O19>0.04, "Medium", "Low"))		=TEXT(B19, "mmmmm yyyy")	=LEFT(C19,FIND(" ",C19)-1)	=RIGHT(C19,LEN(C19)-FIND(" ",C19))
20	=IF(O20>0.08, "High", IF(O20>0.04, "Medium", "Low"))		=TEXT(B20, "mmmmm yyyy")	=LEFT(C20,FIND(" ",C20)-1)	=RIGHT(C20,LEN(C20)-FIND(" ",C20))
21	=IF(O21>0.08, "High", IF(O21>0.04, "Medium", "Low"))		=TEXT(B21, "mmmmm yyyy")	=LEFT(C21,FIND(" ",C21)-1)	=RIGHT(C21,LEN(C21)-FIND(" ",C21))
22	=IF(O22>0.08, "High", IF(O22>0.04, "Medium", "Low"))		=TEXT(B22, "mmmmm yyyy")	=LEFT(C22,FIND(" ",C22)-1)	=RIGHT(C22,LEN(C22)-FIND(" ",C22))
23	=IF(O23>0.08, "High", IF(O23>0.04, "Medium", "Low"))		=TEXT(B23, "mmmmm yyyy")	=LEFT(C23,FIND(" ",C23)-1)	=RIGHT(C23,LEN(C23)-FIND(" ",C23))
24	=IF(O24>0.08, "High", IF(O24>0.04, "Medium", "Low"))		=TEXT(B24, "mmmmm yyyy")	=LEFT(C24,FIND(" ",C24)-1)	=RIGHT(C24,LEN(C24)-FIND(" ",C24))
25	=IF(O25>0.08, "High", IF(O25>0.04, "Medium", "Low"))		=TEXT(B25, "mmmmm yyyy")	=LEFT(C25,FIND(" ",C25)-1)	=RIGHT(C25,LEN(C25)-FIND(" ",C25))
26	=IF(O26>0.08, "High", IF(O26>0.04, "Medium", "Low"))		=TEXT(B26, "mmmmm yyyy")	=LEFT(C26,FIND(" ",C26)-1)	=RIGHT(C26,LEN(C26)-FIND(" ",C26))
27	=IF(O27>0.08, "High", IF(O27>0.04, "Medium", "Low"))		=TEXT(B27, "mmmmm yyyy")	=LEFT(C27,FIND(" ",C27)-1)	=RIGHT(C27,LEN(C27)-FIND(" ",C27))

2. BUILT PIVOTTABLES

- Inserted a PivotTable on Sheet2 to:
 - Group data by **Customer Name** and **Customer Type**
 - Calculate:
 - Total Order Quantity
 - Total Order Value
 - Discount Percentage
 - Grand Total (Order Total + Shipping)

The screenshot shows a Microsoft Excel spreadsheet titled "YoungDev Expert Task week 3 - Excel". The ribbon is visible at the top with tabs like File, Home, Insert, Draw, Page Layout, Formulas, Data, Review, View, Help, Power Pivot, PivotTable Analyze, and Design. The PivotTable Analyze tab is selected. The main area shows a PivotTable on Sheet2 with the following data:

	A	B	C	D	E	F	G
Row Labels		Sum of Order Quantity	Sum of Discount %	Sum of Order Total	Sum of Total		
Aaron Bergman		71	10%	\$4,091.95	\$4,122.78		
Sydney		71	10%	\$4,091.95	\$4,122.78		
Apex Preferred Stainless Steel Scissors		23	1%	\$132.93	\$136.53		
Cando S750 Color Inkjet Printer		35	8%	\$3,921.53	\$3,947.83		
Steady Liquid Accent Tank-Style Highlighters		13	1%	\$37.48	\$38.41		
Aaron Smayling		60	10%	\$1,103.07	\$1,112.94		
Sydney		60	10%	\$1,103.07	\$1,112.94		
OIC Colored Binder Clips, Assorted Sizes		10	5%	\$35.64	\$37.27		
Smiths Gold Paper Clips		22	4%	\$64.52	\$66.10		
TypeRight Top-Opening Peel & Seal Envelopes, Gray		28	1%	\$1,002.92	\$1,009.58		
Adam Bellavance		49	7%	\$601.39	\$610.83		
Sydney		49	7%	\$601.39	\$610.83		
HFX 65 Scientific Calculator		49	7%	\$601.39	\$610.83		
Adam Hart		1	8%	\$3.82	\$4.81		
Sydney		1	8%	\$3.82	\$4.81		
Artisan 481 Labels		1	8%	\$3.82	\$4.81		
Adam Shillingsburg		12	6%	\$5,124.89	\$5,173.89		

3. ADDED SLICERS (INTERACTIVE FILTERS)

- Connected slicers to the PivotTable for real-time filtering:
 - Customer Name
 - Customer Type
 - Shipping Cost
 - Order Quantity
 - Order Total
 - Order Number

YoungDev Expert Task week 3 - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help Power Pivot

T34

Row Labels Sum of Order Quantity Sum of Discount % Sum of Order Total Sum of Total Sum of Shipping Cost

4	Aaron Bergman	71	10%	\$4,091.95	\$4,122.78
5	Corporate	71	10%	\$4,091.95	\$30.83
6	Eugene Hildebrand	60	10%	\$1,103.07	\$1,112.94
7	Small Business	60	10%	\$1,103.07	\$9.87
8	Adam Bellavance	49	7%	\$601.39	\$610.83
9	Small Business	49	7%	\$601.39	\$9.44
10	Adam Hart	1	8%	\$3.82	\$4.81
11	Corporate	1	8%	\$3.82	\$0.99
12	Adam Shillingsburg	12	6%	\$5,124.89	\$5,173.89
13	Corporate	12	6%	\$5,124.89	\$49.00
14	Adrian Hane	47	10%	\$501.83	\$504.18
15	Corporate	47	10%	\$501.83	\$2.35
16	Adrian Shami	35	5%	\$313.54	\$317.52
17	Consumer	35	5%	\$313.54	\$3.98
18	Alan Barnes	11	9%	\$28.43	\$30.83
19	Corporate	11	9%	\$28.43	\$2.40
20	Alan Dominguez	42	9%	\$118.71	\$119.70
21	Corporate	42	9%	\$118.71	\$0.99
22	Alan Hwang	41	3%	\$245.62	\$245.44
23	Corporate	41	3%	\$243.62	\$1.82
24	Alan Schoenberger	36	9%	\$5,357.58	\$5,377.57
25	Corporate	36	9%	\$5,357.58	\$19.99
26	Alan Shonely	19	10%	\$2,741.33	\$2,746.83
27	Small Business	19	10%	\$2,741.33	\$5.50
28	Alejandro Ballentine	114	16%	\$1,065.05	\$1,084.84
29	Small Business	114	16%	\$1,065.05	\$19.79
30	Alejandro Grove	42	1%	\$160.78	\$161.48
31	Corporate	42	1%	\$160.78	\$0.70
32	Aleksandra Gannaway	119	32%	\$1,271.22	\$1,287.25
33	Corporate	70	20%	\$672.16	\$682.05
34	Home Office	49	12%	\$599.05	\$605.19
	Grand Total	32.32	270	23%	\$2,984.71
					\$3,017.03

Order No Customer Name Order Quantity Order Total

Customer Type Shipping Cost

Ready Accessibility: Good to go

YoungDev Expert Task week 3 - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help Power Pivot Slicer

Slicer Caption: Customer Type Report Connections Slicer Settings Slicer Styles Arrange Buttons Size

Customer ...

Sum of Shipping Cost Sum of Order Quantity Sum of Discount % Sum of Order Total Sum of Total

4	Ed Braxton	\$4.81	45	3%	\$921.02
5	Home Office	\$4.81	45	3%	\$921.02
6	Eugene Hildebrand	\$7.72	45	4%	\$323.08
7	Home Office	\$7.72	45	4%	\$330.80
8	Maribeth Yedwab	\$0.80	45	1%	\$117.52
9	Home Office	\$0.80	45	1%	\$117.52
10	Michelle Lonsdale	\$15.10	45	5%	\$971.85
11	Home Office	\$15.10	45	5%	\$986.95
12	Skye Norling	\$3.14	45	2%	\$575.56
13	Home Office	\$3.14	45	2%	\$578.70
14	Tracy Blumstein	\$0.75	45	8%	\$75.68
15	Home Office	\$0.75	45	8%	\$76.43
16	Grand Total	\$32.32	270	23%	\$2,984.71
					\$3,017.03

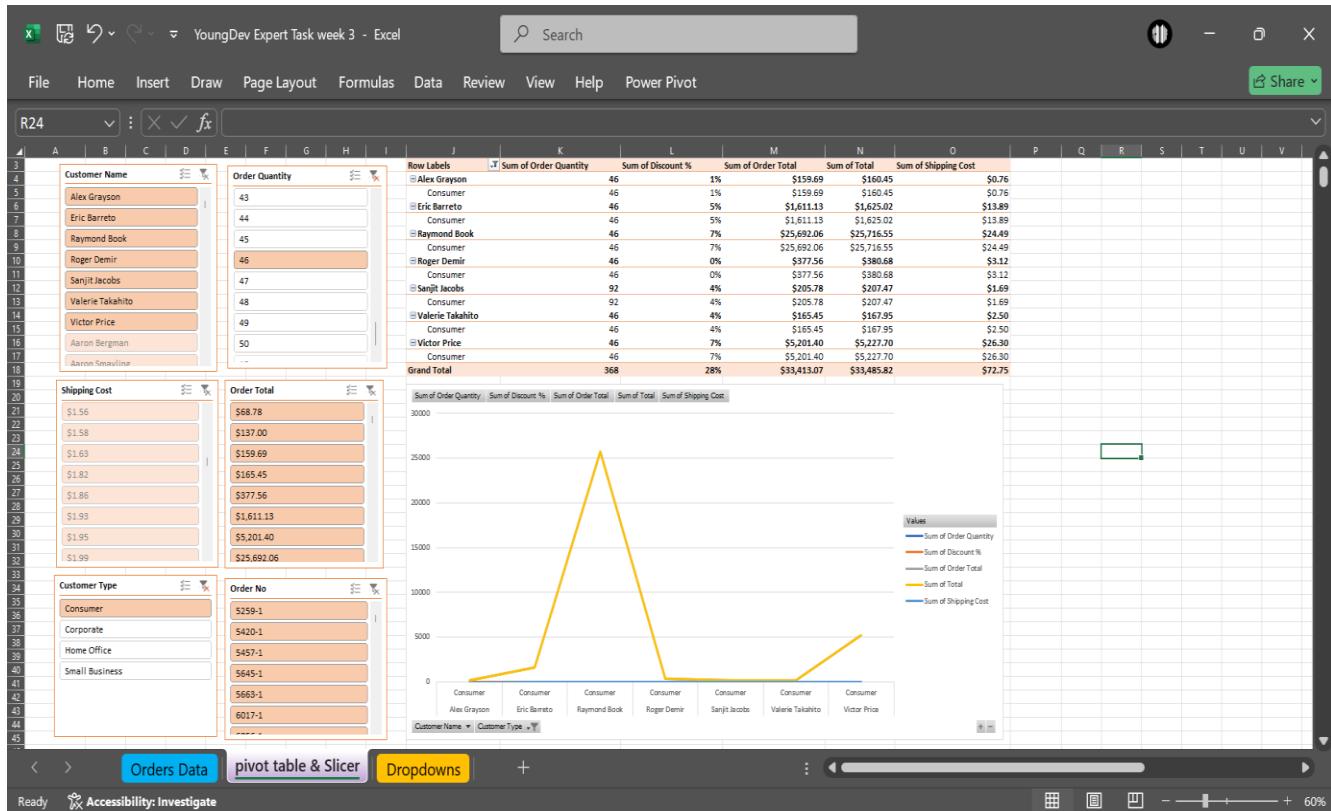
Order No Customer Name Order Quantity Order Total

Customer Type Shipping Cost

Ready Accessibility: Investigate

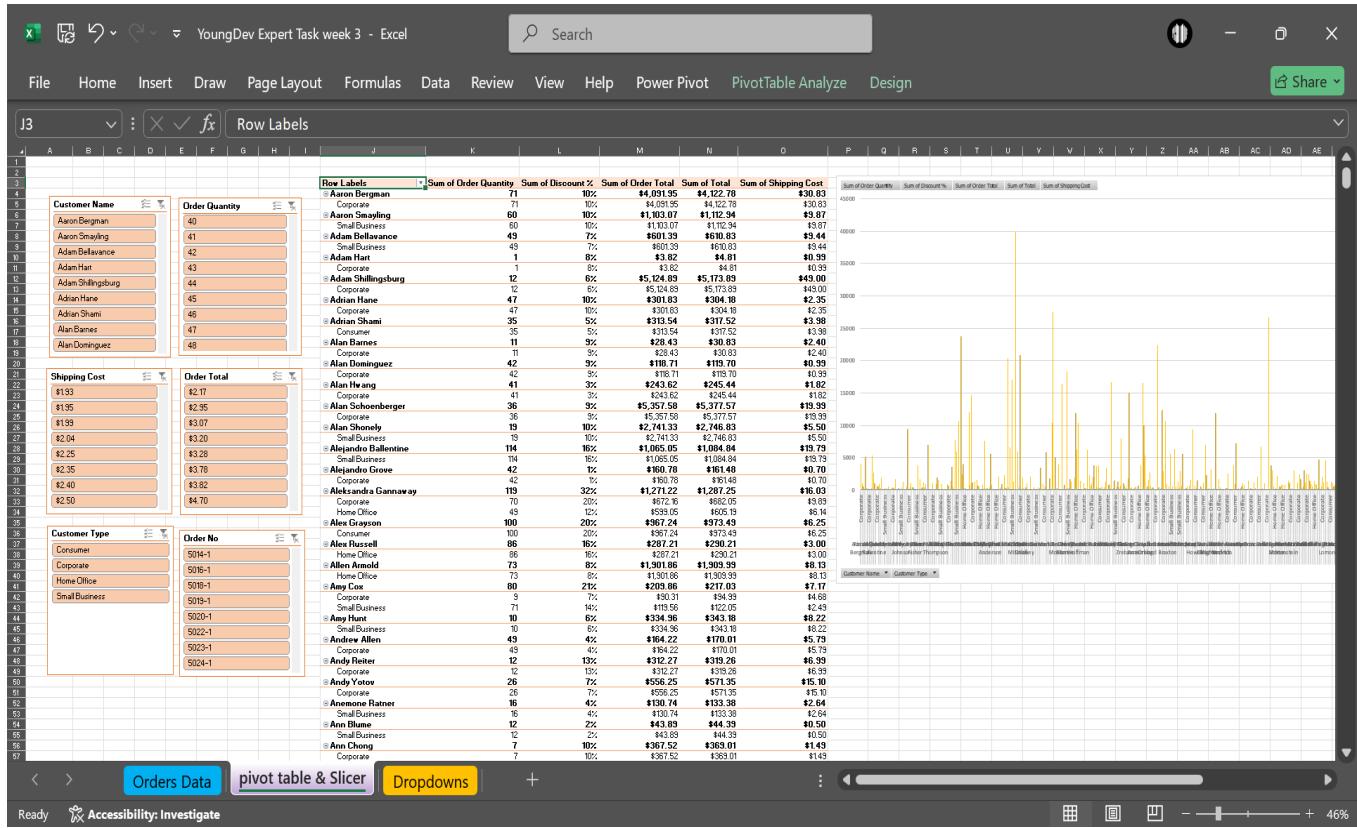
4. CREATED PIVOTCHARTS

- Designed Pivot Charts to visually represent:
 - Total Order Value by Customer
 - Shipping Cost by Type
 - Quantity distribution



5. FINALIZED INTERACTIVE DASHBOARD

- Brought everything together on one sheet with:
 - Clean PivotTable layout
 - Fully functional slicers
 - Filter-friendly interface
 - Professional formatting and styling



What This Dashboard Can Do

- Allows users to filter orders by customer, type, and value
- Tracks and compares shipping costs across customers
- Shows order trends by quantity and total
- Helps understand which customers or types are most profitable
- Enables quick decision-making using slicers and charts

CONCLUSION:

This week's task gave me hands-on experience with real-world Excel tools used by analysts and business professionals. I built an automated, interactive dashboard that makes large data easy to explore, filter, and understand. I also applied several advanced formulas and logic to manipulate the data efficiently. I feel more confident using Excel for data analysis, especially in areas like report automation, filtering with slicers, and using logical formulas.

EXPERT – TASK WEEK 4

INTRODUCTION

In Week 3, I focused on automating data cleaning and formatting in Excel using VBA (Visual Basic for Applications). The goal was to improve efficiency and accuracy when working with large customer order datasets by writing a custom macro named “CleanCustomerOrderData”. This macro helps automate repetitive cleaning tasks and ensures that the data is uniformly structured and ready for further analysis or dashboard creation.

1. WHAT IS A VBA MACRO?

VBA stands for Visual Basic for Applications, and a macro is a set of instructions (a program) written in VBA that automates tasks in Microsoft Office applications like Excel, Word, or PowerPoint.

For example, instead of cleaning a sheet, formatting columns, and removing duplicates every time by hand, you can write a macro once, and Excel will do all of it for you with a single click.

What the VBA Macro Does:

The macro CleanCustomerOrderData performs the following operations in sequence:

Deletes Empty First Row (if present):

- Checks if **Row 1** is empty using CountA.
- If empty, the row is deleted to prevent issues during analysis.

Removes Duplicate Rows:

- Searches across **columns A to X (1 to 24)**.
- Removes rows with exact duplicates using the RemoveDuplicates function.
- Keeps the first unique entry and deletes the rest.

Trims Whitespace from Customer Names:

- Loops through all rows starting from row 2.
- Removes any leading/trailing spaces in **Column C (Customer Name)** using Trim().

Applies Formatting to All Columns:

- Assigns **consistent number formats** to each column for clarity:
- Ensures **uniform data type**, correct currency symbols, and date formats.
- This makes the dataset ready for advanced operations like PivotTables, charts, and filtering.

```
Microsoft Visual Basic for Applications - Expert Task week 4 VBA Macros.xlsm - [Module3 (Code)]
File Edit View Insert Format Debug Run Tools Add-Ins Window Help
Ln 38, Col 41
Project - VBAPrjekt X General CleanCustomerOrderData
Sub CleanCustomerOrderData()
    Dim ws As Worksheet
    Set ws = ThisWorkbook.Sheets(1)

    ' Delete empty first row (Row 1) if needed
    If WorksheetFunction.CountA(ws.Rows(1)) = 0 Then
        ws.Rows(1).Delete
    End If

    Dim lastRow As Long
    lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

    ' Remove duplicates across all columns A to X (1 to 24)
    ws.Range("A1:X" & lastRow).RemoveDuplicates
        Columns:=Array(1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, _
                      13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24), _
        Header:=xlYes

    ' Recalculate lastRow after duplicates removed
    lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

    ' Trim text in Customer Name (Column C = 3)
    Dim i As Long
    For i = 2 To lastRow
        If ws.Cells(i, 3).Value <> "" Then
            ws.Cells(i, 3).Value = Trim(ws.Cells(i, 3).Value)
        End If
    Next i

    With ws
        ' Column A: Order No
        .Columns("A").NumberFormat = "@" ' Text format

        ' Column B: Order Date
        .Columns("B").NumberFormat = "mm/dd/yyyy"
    End With
End Sub
```

2. POWER QUERY

What is Power Query?

Power Query is a powerful tool in Excel used to connect, clean, transform, and reshape data from multiple sources before analyzing it in your workbook.

I also focused on mastering **Power Query** to automate and simplify Excel data preparation processes. Power Query enabled me to clean, transform, and reshape raw data with ease, eliminating the need for repetitive manual steps. I learned how to apply multiple transformation steps such as removing unwanted characters, splitting combined fields, and converting data types, all within a single, automated workflow.

Overall, Power Query proved to be a powerful tool for automating data cleaning and preparation, enhancing both productivity and data reliability. This experience has equipped me with valuable skills in data transformation, workflow automation, and building error-free, analysis-ready datasets.

What I Did & Why?

Transformation Applied	Why It Was Done
Loaded data into Power Query from Order Data	To apply transformations cleanly
Split combined columns like Customer Name & Type into two separate fields (e.g., Customer Name and Customer Type)	To make filtering and grouping possible in dashboards
Split or extracted location data from City: State	Ensures separate fields for filtering by city or state
Data type conversions (e.g., date formats, number types)	Required for calculations (e.g., totals, margins, etc.)
Removed null/empty rows	Cleaned up raw data for analysis
Renamed columns to more readable and consistent names	Improves dashboard readability
Added calculated columns like “Total” and “Profit Margin”	For deeper insights into financials
Reordered columns and ensured formatting consistency.	Keeps data organized for PivotTables or dashboards

Screenshot of the Power Query Editor showing the transformation steps for Table1.

Query Settings:

- Name: Table1
- All Properties
- Applied Steps:
 - Source
 - Changed Type
 - Extracted Date
 - Trimmed Text
 - Capitalized Each Word
 - Merged Columns
 - Renamed Columns
 - Merged Columns1
 - Renamed Columns1

Table1 Data Preview:

	A ^B C City:State	A ^B C Customer Name & Type	A ^B C Account Manager	A ^B C Order
1	Sydney:NSW	Christopher Schild;Corporate	Tina Carlton	Medium
2	Sydney:NSW	Christopher Schild;Corporate	Tina Carlton	Medium
3	Bank Street, Sydney	Cyma Kinney;Small Business	Phoebe Gour	Low
4	Bank Street, Sydney	Cyma Kinney;Small Business	Phoebe Gour	Low
5	Melbourne:VIC	Berenike Kampe;Corporate	Connor Betts	Not Specified
6	Melbourne:VIC	Berenike Kampe;Corporate	Connor Betts	Not Specified
7	7th Street,Parramatta;46a Macleay Street,Potts Point	Christy Brittain;Consumer	Mihael Khan	Critical
8	8th Street,Parramatta;46a Macleay Street,Potts Point	Christy Brittain;Consumer	Mihael Khan	Critical
9	Sydney:NSW	Alex Grayson;Consumer	Radhya Staples	Medium
10	Sydney:NSW	Alex Grayson;Consumer	Radhya Staples	Medium
11	Melbourne:VIC	Stephanie Ulpright;Consumer	Yvette Biti	Not Specified
12	Melbourne:VIC	Stephanie Ulpright;Consumer	Yvette Biti	Not Specified
13	Castgardsens	Sylvia Foulston;Corporate	Tina Carlton	Critical
14	Castgardsens	Sylvia Foulston;Corporate	Tina Carlton	Critical
15	Melbourne:VIC	Patrick Jones;Home Office	Yvette Biti	Low
16	Melbourne:VIC	Patrick Jones;Home Office	Yvette Biti	Low
17	0 Kingsway,Miranda	Saphhira Shifley;Consumer	Preston Senome	Critical
18	0 Kingsway,Miranda	Saphhira Shifley;Consumer	Preston Senome	Critical
19	Sey	Anne Pryor;Home Office	Aanya Zhang	Medium
20	Sey	Anne Pryor;Home Office	Aanya Zhang	Medium
21				

22 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 11:24 PM

3. ERROR TRAPPING FORMULA

This sheet shows how you applied **error checking and validation logic** in Excel formulas to trap and handle data quality issues.

What I Did & Why:

Column	Formula Used / Purpose	Explanation
Validate Total Calculation	Likely checks if Order Total + Shipping Cost = Total	Helps find rows where calculations don't match, marking them as "OK" or "Missing"
Division errors (Profit Margin)	Formula likely used: =IFERROR((Retail - Cost)/Cost, "Error")	Prevents divide-by-zero errors and flags problematic data
Missing value (Order Date)	Formula likely used: =IF(ISBLANK([@OrderDate]), "Missing", "OK")	Highlights rows with missing or invalid order dates

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The ribbon menu is visible at the top, with the "Formulas" tab selected. The formula bar at the top indicates the current cell is Z14, containing the formula =IFERROR((P14-O14)/O14,"Error").

The main content of the spreadsheet is a table with three columns:

- Y Column:** Contains validation rules for total calculations. For example, row 3 contains the formula =IF(ABS(V3 + W3 - X3) > 0.15, "Mismatch", "OK") and row 14 contains =IF(ABS(V14 + W14 - X14) > 0.15, "Mismatch", "OK").
- Z Column:** Contains division errors for profit margin. For example, row 3 contains =IFERROR((P3-O3)/O3,"Error") and row 14 contains =IFERROR((P14-O14)/O14,"Error").
- AA Column:** Contains missing value or order date errors. For example, row 3 contains =IF(OR(ISBLANK(B3), NOT(ISNUMBER(B3))), "Missing/Invalid Date", "OK") and row 14 contains =IF(OR(ISBLANK(B14), NOT(ISNUMBER(B14))), "Missing/Invalid Date", "OK").

At the bottom of the table, there are buttons for "Order Data", "Formatted Table", and "Error terms". The status bar at the bottom right shows "Accessibility: Investigate" and a zoom level of 113%.

CONCLUSION:

This week, I successfully leveraged VBA and Power Query to automate and streamline essential Excel data preparation tasks. Through hands-on practice, I developed the ability to write clear and functional code that improves both workflow efficiency and data accuracy.

I also gained practical experience in performing data cleaning, error trapping, and implementing validation checks—all critical steps for ensuring clean, analysis-ready datasets. Using Power Query allowed me to automate repetitive tasks like removing unwanted characters, transforming data types, and separating merged values, significantly reducing manual effort.

In addition, I applied error trapping formulas to identify and correct issues like missing data and calculation mismatches, while learning how to prevent common errors such as divide-by-zero problems.

Overall, this task enhanced my skills in data automation, data integrity, and preparation for advanced analysis, making me more confident in working with complex Excel workflows.