ACC250: Intro to Financial Accounting

LN3: Introduction to Excel - Part III

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Learning Objectives

Understand the following concepts using examples:

- Table format (ctrl + T).
- Absolute vs Relative References.
- Sorting data.
- Basic formulas.
- Basic formatting (e.g., decimal places)
- Summarizing data with PivotTable.
- Grouping data with PivotTable.
- Get details of from pivot table.
- Visualization with PivotChart.

Basic accounting concepts

Accounts Receivable (Asset)

Amounts customers owe you for products and services sold on credit.

Gross Profit (GP)

The difference between the revenue from sales and the cost of goods sold.

Gross Profit Margin (GP%)

Gross Profit / Revenue

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Ex. Gross margin by customers [Lab2-2]

Lab2-2: Gross margin by customers

Purpose: By identifying the customers with the highest gross margin, we can focus on them to improve the profitability of the company.

① Add a new column to the data to calculate gross margin.
   (Convert the data to table first.)

② Using pivot table, calculate gross margin by customer.

③ Sort the pivot table by gross margin in descending order.

Data Preview

	A	B	C	D	E	F	G	H	I
1	Invoice #	Customer #	Zip Code	Date of Sale	SKU	Description	Quantity (Pounds)	Sales	Cost
2	3021	2001	67510	3/1/2025	FRT-APL	Apple	15	25.52	16.36
3	3021	2001	67510	3/1/2025	FRT-GOR	Goji berry	5	5.92	3.71
4	3021	2001	67510	3/1/2025	FRT-OLV	Olive	35	53.92	33.26
5	3021	2001	67510	3/1/2025	FRT-REN	Redcurrant	5	7.12	4.26
6	3022	2091	67621	3/1/2025	FRT-FII	Fig	35	84.37	54.26
7	3023	2025	67511	3/1/2025	FRT-JUR	Juniper berry	50	65.02	43.01
8	3023	2025	67511	3/1/2025	FRT-PAY	Papaya	35	37.12	22.06

1. Add a new column to the data to calculate gross margin.

How?

1. ctrl + T to convert the data to table.

2. Go to Cell J2. Press "=".

3. Select the cell H2. Excel will pick up "@Sales". Press "-".

4. Select the cell I2. Excel will pick up "@Cost".

H	I	J	K
Sales ▾	**Cost** ▾	**GrossMargin** ▾	
25.52	16.36	=[@Sales]-[@Cost]	
5.92	3.71		
53.92	33.26		
7.12	4.26		

2. Using pivot table, calculate gross margin by customer.

How?
1. Select the data (table).
2. Insert > PivotTable.
3. "Customer #" to Row Labels.
4. Gross Margin to Values.
5. Make sure "sum" is selected for the Values field.

Row Labels	Sum of GrossMargin
2100	135.47
2099	58.56
2098	11.56
2091	30.11
2088	212.23
2087	114.85
2086	107.41
2084	24.46
2081	137.78
2079	64.00

PivotTable Fields

Choose fields to add to report:

Search

- ☐ Invoice #
- ☑ Customer #
- ☐ Zip Code
- ☐ Date of Sale

Drag fields between areas below:

▼ Filters	||| Columns

≡ Rows	Σ Values
Customer #	Sum of GrossMargin

3. Sort the pivot table by gross margin in descending order.

How?

❶ Select any number (e.g. M2: 357.70) in the "Gross Margin" column in the pivot table.

❷ Data > Sort > Largest to Smallest.

❸ Check the format of numbers in the "Gross Margin" column - two decimal places.

L	M
Row Labels	**Sum of GrossMargin**
2047	357.70
2088	212.23
2072	139.01
2081	137.78
2100	135.47
2060	118.74
2064	115.33
2087	114.85
2046	114.29
2086	107.41

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Ex. Accounts Receivable by cusotmers [Lab2-1]

Lab2-1: Accounts Receivable by customers

Purpose: By identifying the customers with the highest accounts receivable, we can focus on them to improve the cash flow of the company.

1. Add a new column to the data to calculate "Days Past Due".
2. Convert the data to table.
3. Summarize the unpaid invoices (accounts receivable) by customer.
   (We use absolute reference to calculate accounts receivable.)
4. Sort the pivot table by accounts receivable in descending order.
5. Get details of the customers with the highest accounts receivable.

Data Preview

	A	B	C
1	Customer	InvoiceAmount	Due Date
2	IBM	406.57	10/3/2025
3	PepsiCo	747.12	12/15/2025
4	Smirnoff	373.59	9/12/2025
5	3M	1415.76	11/27/2025

1. Add a new column to the data to calculate "Days Past Due".

① Type "Days Past Due" in cell D1.

② Use absolute reference (G1) to calculate days past due.

③ Drag the formula to the bottom of the column.

	C	D	E	F	G
	Due Date	Days Past Due		Today's Date	12/31/2025
	10/3/2025	=G1-C2			
	12/15/2025				
	9/12/2025				

2. Convert the data to table.

How?
1. ctrl + T to convert the data to table.
2. But why now? why not before?
3. It's because we use absolute reference to calculate days past due. Table isn't so flexible when referring to cells outside of the table.

	A	B	C	D
1	Customer	InvoiceAmount	Due Date	Days Past Due
2	IBM	406.57	10/3/2025	89
3	PepsiCo	747.12	12/15/2025	16
4	Smirnoff	373.59	9/12/2025	110
5	3M	1415.76	11/27/2025	34
6	Canon	308.63	11/30/2025	31

3. Summarize the unpaid invoices (accounts receivable) by customer.

How?

1. Select the data (table).
2. Insert > PivotTable.
3. "Customer #" to Row Labels.
4. "Days Past Due" to Values.
5. Make sure "sum" is selected for the Values field.

Row Labels	Sum of InvoiceAmount
3M	4129.38
Adidas	1506.6
Amazon.com	1174.63
American Express	1480.77
Apple Inc.	2119.33
AT&T	1195.78
Audi	2198.22
Avon	1160.37

4. Sort the pivot table by accounts receivable in descending order.

How?
1. Select any number in the "InvoiceAmount" column in the pivot table.
2. Data > Sort > Largest to Smallest.
3. Check the format of numbers in the "InvoiceAmount" column - two decimal places.

Row Labels	Sum of InvoiceAmount
Porsche	7986.25
General Electric	4851.54
Intel Corporation	4629.05
Beko	4595.20
eBay	4462.88
Mastercard	4427.08
3M	4129.38

5. Get details of the customers with the highest accounts receivable.

How?
1. Double click Sum of InvoiceAmount of the top customer.
2. New worksheet will be created.

	A	B	C	D
1	Details for Sum of InvoiceAmount - Customer: Porsche			
2				
3	Customer	InvoiceAmount	Due Date	Days Past Due
4	Porsche	1461.73	11/28/2025	33
5	Porsche	1309.85	12/6/2025	25
6	Porsche	339.92	9/16/2025	106
7	Porsche	707.28	10/3/2025	89
8	Porsche	838.18	10/3/2025	89
9	Porsche	999.24	9/15/2025	107
10	Porsche	1440.03	8/18/2025	135
11	Porsche	890.02	9/29/2025	93
12				

Detail1   Sheet1   +

But why have we made the new column - "Days Past Due"?

What can we do with this column?

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Ex. Accounts Receivable by ages [Lab6-1]

Lab6-1: Accounts Receivable by days past due

Purpose: By identifying the days past due, we can focus on them to improve the collection process.

1. Summarize the unpaid invoices (accounts receivable) by days past due.
2. Group the pivot table by days past due (1-30; 31-60; 61-90; 91-120; 121-180).
3. Make a pivot chart to visualize the accounts receivable by days past due.
4. Review the details of customers whose days past due exceed 150.

Data Preview

	A	B	C	D
1	Customer	InvoiceAmount	Due Date	Days Past Due
2	IBM	406.57	10/3/2025	89
3	PepsiCo	747.12	12/15/2025	16
4	Smirnoff	373.59	9/12/2025	110
5	3M	1415.76	11/27/2025	34
6	Canon	308.63	11/30/2025	31

1. Summarize the unpaid invoices (accounts receivable) by days past due.

How?

1. Select the data (table).
2. Insert > PivotTable.
3. "Days Past Due" to Row Labels.
4. "InvoiceAmount" to Values.

Row Labels	Sum of InvoiceAmount
9	1447.32
11	1442.24
13	1037.44
15	2643.29
16	1058.65
17	2440.39
18	1855.97

2. Group the pivot table by days past due (1-30; 31-60; 61-90; 91-120; 121-180).

How?

❶ **Right click** on any row of the **Row labels** inside the pivot table.

❷ Select **Group**.

❸ Specify starting at 1, ending at 180, by groups of 30.

Row Labels	Sum of InvoiceAmount
9	1447.32
11	1442.24
13	1037.44
15	2643.29
16	1058.65
17	2440.39
18	1855.97
19	2427.88

Grouping   ?   ✕

Auto

☐ Starting at: 1

☐ Ending at: 180

By: 30

[OK]   [Cancel]
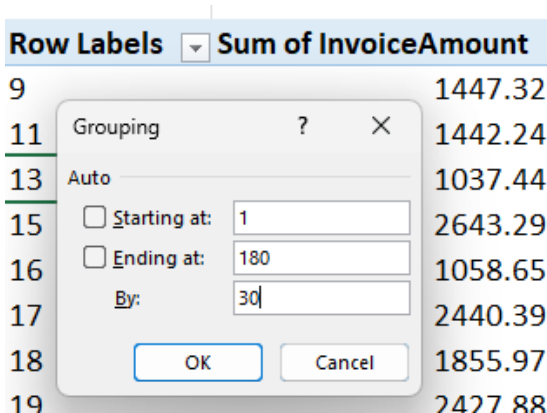
Row Labels	Sum of InvoiceAmount
1-30	23,958.44
31-60	35,641.82
61-90	37,723.45
91-120	27,312.04
121-150	34,499.08
151-180	10,009.51
Grand Total	**169144.34**

3. Make a pivot chart to visualize the accounts receivable by days past due.

How?

1. Select the pivot table.
2. Insert > PivotChart.
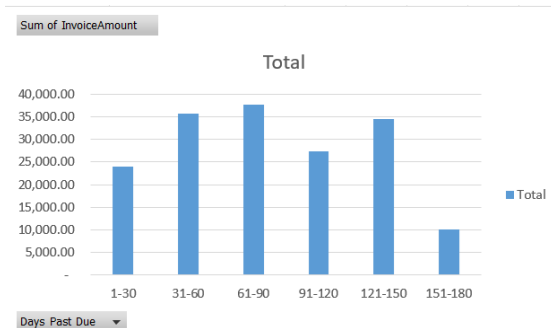
4. Review the details of customers whose days past due exceed 150.

How?

① Double-click the value in the "Sum of InvoiceAmount" column for the 151-180 days group in the pivot table.

② New worksheet will be created.

	A	B	C	D
1	Details for Sum of InvoiceAmount - Days Past Due: 151-180			
2				
3	Customer	InvoiceAmount	Due Date	Days Past Due
4	Mercedes-benz	707.38	8/1/2025	152
5	Kellogg Company	1116.4	8/2/2025	151
6	Audi	729.16	7/25/2025	159
7	Harley-Davidson	808.94	7/21/2025	163
8	The Walt Disney Company	1368.48	7/22/2025	162
9	Ralph Lauren	383.24	7/26/2025	158
10	Kellogg Company	296.18	7/28/2025	156
11	Bucci	1110.77	7/30/2025	154
12	Mercedes-benz	471.33	7/25/2025	159
13	Microsoft	289.16	8/2/2025	151
14	Kleenex	1249.67	7/27/2025	157
15	General Electric	1478.8	7/27/2025	157