

Summarizing and Organizing Data in Excel

GROUPING AND OUTLINING YOUR DATA



Ben Howard

DATA CONSULTANT

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	Type	Quantity	
	Apple	17	
	Berries	14	
	Grapes	22	
	Kiwi	29	
	Lemon	19	
	Lime	17	
	Mango	21	
	Orange	23	
	Peach	22	
	Pear	17	



10,000



	Type	Quantity	Unit Cost	Total Cost	
	Apple	19	5.29	100.60	
	Blueberries	28	2.53	70.93	
	Grapes	27	6.28	169.59	
	Kiwi	30	2.52	75.66	
	Lemon	25	5.03	125.76	
	Lime	16	8.68	138.90	
	Mango	20	1.62	32.41	
	Orange	27	4.85	130.82	
	Peach	14	8.99	125.87	
	Pear	15	7.13	106.92	
	Pineapple	29	0.48	13.96	
	Strawberry	13	2.18	28.28	



	Name	Age	
	Jane	19	
	John	28	
	Nahita	27	
	Pedro	54	
	Amilia	22	



For Reorder	Inventory ID	Name	Description	Unit Price	Quantity in Stock	Inventory Value	Reorder Level	Reorder Time in Days	Quantity in Reorder	Discontinued?
▶	IN0001	Item 1	Desc 1	\$51.00	25	\$1,275.00	29	13	50	
▶	IN0002	Item 2	Desc 2	\$93.00	132	\$12,276.00	231	4	50	
	IN0003	Item 3	Desc 3	\$57.00	151	\$8,607.00	114	11	150	
	IN0004	Item 4	Desc 4	\$19.00	186	\$3,534.00	158	6	50	
	IN0005	Item 5	Desc 5	\$75.00	62	\$4,650.00	39	12	50	
▶	IN0006	Item 6	Desc 6	\$11.00	5	\$55.00	9	13	150	
	IN0007	Item 7	Desc 7	\$56.00	58	\$3,248.00	109	7	100	Yes
▶	IN0008	Item 8	Desc 8	\$38.00	101	\$3,838.00	162	3	100	
	IN0009	Item 9	Desc 9	\$59.00	122	\$7,198.00	82	3	150	
▶	IN0010	Item 10	Desc 10	\$50.00	175	\$8,750.00	283	8	150	
▶	IN0011	Item 11	Desc 11	\$59.00	176	\$10,384.00	229	1	100	
▶	IN0012	Item 12	Desc 12	\$18.00	22	\$396.00	36	12	50	
▶	IN0013	Item 13	Desc 13	\$26.00	72	\$1,872.00	102	9	100	
▶	IN0014	Item 14	Desc 14	\$42.00	62	\$2,604.00	83	2	100	
	IN0015	Item 15	Desc 15	\$32.00	46	\$1,472.00	23	15	50	
▶	IN0016	Item 16	Desc 16	\$90.00	96	\$8,640.00	180	3	50	
	IN0017	Item 17	Desc 17	\$97.00	57	\$5,529.00	98	12	50	Yes
▶	IN0018	Item 18	Desc 18	\$12.00	6	\$72.00	7	13	50	
▶	IN0019	Item 19	Desc 19	\$82.00	143	\$11,726.00	164	12	150	
	IN0020	Item 20	Desc 20	\$16.00	124	\$1,984.00	113	14	50	
	IN0021	Item 21	Desc 21	\$19.00	112	\$2,128.00	75	11	50	
	IN0022	Item 22	Desc 22	\$24.00	182	\$4,368.00	132	15	150	
	IN0023	Item 23	Desc 23	\$29.00	106	\$3,074.00	142	1	150	Yes
	IN0024	Item 24	Desc 24	\$75.00	173	\$12,975.00	127	9	100	
	IN0025	Item 25	Desc 25	\$14.00	28	\$392.00	21	8	50	



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	D	E	F	G	H	K	L	M	N	P	Q
1	Weekday	Date	Start time	Duration	Day accumulated	WeekDayNum ~		DATE		Hour	
2	Saturday	5/28/2016	1:25 PM	0:35	0:35	6	1	5/28/2016	Saturday	3.33	
3	Saturday	5/28/2016	2:15 PM	0:30	1:05	6	2	5/29/2016	Sunday	1.83	
4	Saturday	5/28/2016	2:45 PM	0:15	1:20	6	3	5/30/2016	Monday	0.00	
5	Saturday	5/28/2016	4:30 PM	1:50	3:10	6	4	5/31/2016	Tuesday	0.00	
6	Saturday	5/28/2016	6:30 PM	0:10	3:20	6	5	6/1/2016	Wednesday	1.08	
7	Sunday	5/29/2016	3:55 PM	0:30	0:30	7	6	6/2/2016	Thursday	1.00	
8	Sunday	5/29/2016	4:35 PM	0:10	0:40	7	7	6/3/2016	Friday	0.83	
9	Sunday	5/29/2016	5:00 PM	0:50	1:30	7	8	6/4/2016	Saturday	2.00	
10	Sunday	5/29/2016	6:05 PM	0:20	1:50	7	9	6/5/2016	Sunday	1.67	
11	Wednesday	6/1/2016	8:30 PM	0:35	0:35	3	10	6/6/2016	Monday	0.83	
12	Wednesday	6/1/2016	9:30 PM	0:30	1:05	3	11	6/7/2016	Tuesday	0.42	
13	Thursday	6/2/2016	8:30 PM	0:30	0:30	4	12	6/8/2016	Wednesday	0.75	
14	Thursday	6/2/2016	9:20 PM	0:30	1:00	4	13	6/9/2016	Thursday	0.75	
15	Friday	6/3/2016	7:10 PM	0:50	0:50	5	14	6/10/2016	Friday	0.00	
16	Saturday	6/4/2016	3:30 PM	0:15	0:15	6	15	6/11/2016	Saturday	0.83	
17	Saturday	6/4/2016	4:15 PM	0:15	0:30	6	16	6/12/2016	Sunday	4.00	
18	Saturday	6/4/2016	4:30 PM	1:30	2:00	6	17	6/13/2016	Monday	1.75	
19	Sunday	6/5/2016	2:10 PM	0:40	0:40	7	18	6/14/2016	Tuesday	0.58	
20	Sunday	6/5/2016	3:20 PM	0:15	0:55	7	19	6/15/2016	Wednesday	0.50	
21	Sunday	6/5/2016	4:00 PM	0:30	1:25	7	20	6/16/2016	Thursday	0.00	
22	Sunday	6/5/2016	4:45 PM	0:15	1:40	7	21	6/17/2016	Friday	0.00	
23	Monday	6/6/2016	8:30 PM	0:10	0:10	1	22	6/18/2016	Saturday	4.08	
24	Monday	6/6/2016	8:40 PM	0:40	0:50	1	23	6/19/2016	Sunday	4.33	
25	Tuesday	6/7/2016	8:45 PM	0:10	0:10	2	24	6/20/2016	Monday	1.83	
26	Tuesday	6/7/2016	9:30 PM	0:15	0:25	2	25	6/21/2016	Tuesday	1.50	
27	Wednesday	6/8/2016	8:20 PM	0:25	0:25	3	26	6/22/2016	Wednesday	0.42	
28	Wednesday	6/8/2016	9:15 PM	0:20	0:45	3	27	6/23/2016	Thursday	0.42	
29	Thursday	6/9/2016	8:45 PM	0:25	0:25	4	28	6/24/2016	Friday	1.00	
30	Thursday	6/9/2016	9:20 PM	0:20	0:45		29	6/25/2016	Saturday	2.67	



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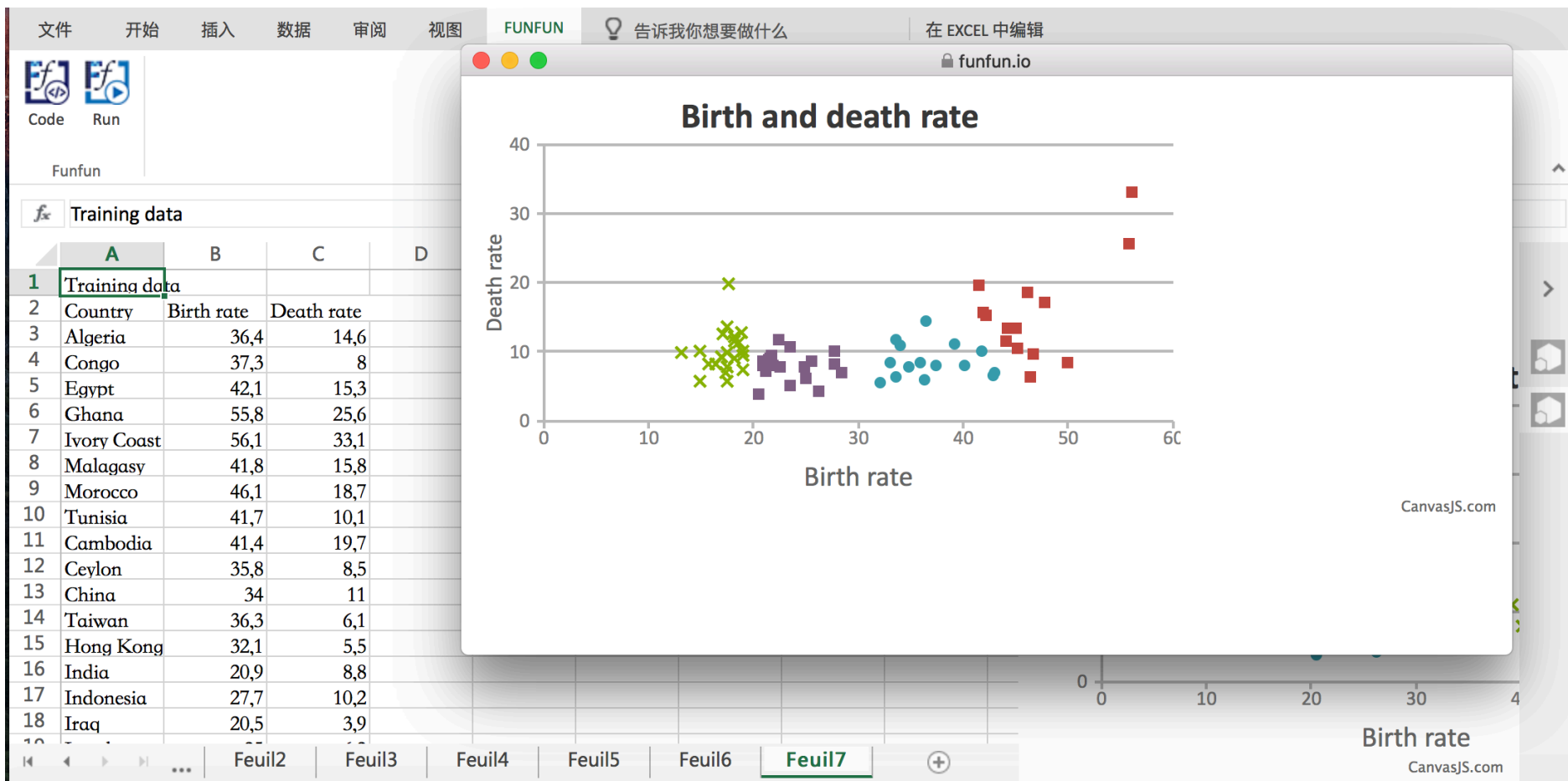


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6	39000	1	-7E+08	0	-7280	12450P			ARS
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8	39000	1	-1E+08	0	-13000	12510P			AUD
9	39080	1	-2.7E+08	0	-105300	11858P			BSD
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12	39080	1	-2.3E+08	0	-67500	12420P			BBD
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14	39080	1	-2.5E+08	0	-60850	12500P			BZD
15	39080	1	-1E+08	0	-13000	12510P			BTN
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17	39109	1	-1E+08	0	-6000	12131P	BOND	FALSE	BOB



	A	B	C	D	E	G	H	I	J	K	L
1	Student ID	Name	Grade level	Activity	Activity Type	Date	Class	Weight	Points	Column	
2	23	John Smith	5	hw1	homework	4/15/2001	Algebra	0.1	9.5	time	
3	21	Suzi Huang	5	hw1	homework	4/15/2001	Algebra	0.1	8.9		
4	32	Rolfie Hostedler	5	hw1	homework	4/15/2001	Algebra	0.1	9.8		
5	26	Susan Jones	5	hw1	homework	4/15/2001	Algebra	0.1	7		
6	27	Alice Chalmer	6	hw1	homework	4/15/2001	Trig	0.1	9.5		
7	23	John Smith	5	project1	assignment	4/19/2001	Visual Basic	0.3	27		
8	26	Susan Jones	5	project1	assignment	4/19/2001	Visual Basic	0.3	27		
9	21	Suzi Huang	5	project1	assignment	4/19/2001	Visual Basic	0.3	25.8		
10	32	Rolfie Hostedler	5	project1	assignment	4/19/2001	Visual Basic	0.3	26.4		
11	26	Susan Jones	5	exam	test	5/31/2001	Algebra	0.28	19.04		
12	23	John Smith	5	exam	test	5/31/2001	Algebra	0.28	25.2		
13	21	Suzi Huang	5	exam	test	5/31/2001	Algebra	0.28	26.6		
14	32	Rolfie Hostedler	5	exam	test	5/31/2001	Algebra	0.28	23.8		
15	26	Susan Jones	5	hw2	homework	4/22/2001	Algebra	0.1	6.8		
16	23	John Smith	5	hw2	homework	4/22/2001	Algebra	0.1	9		
17	21	Suzi Huang	5	hw2	homework	4/22/2001	Algebra	0.1	9.5		
18	32	Rolfie Hostedler	5	hw2	homework	4/22/2001	Algebra	0.1	8.5		
19	27	Alice Chalmer	6	exam	test	5/31/2001	Trig	0.28	21		
20	27	Alice Chalmer	6	hw2	homework	4/22/2001	Trig	0.1	7.5		
21	23	John Smith	5	hw3	homework	4/23/2001	Algebra	0.1	10		
22	32	Rolfie Hostedler	5	hw3	homework	4/23/2001	Algebra	0.1	8.6		
23	26	Susan Jones	5	hw3	homework	4/23/2001	Algebra	0.1	9.2		
24	27	Alice Chalmer	6	hw3	homework	4/23/2001	Trig	0.1	8.8		
25	26	Susan Jones	5	quiz1	test	4/24/2001	Algebra	0.14	10.36		
26	23	John Smith	5	quiz1	test	4/24/2001	Algebra	0.14	12.46		
27	21	Suzi Huang	5	quiz1	test	4/24/2001	Algebra	0.14	12.6		
28	32	Rolfie Hostedler	5	quiz1	test	4/24/2001	Algebra	0.14	12.6		
29	27	Alice Chalmer	6	quiz1	test	4/24/2001	Trig	0.14	12.6		
30	23	John Smith	5	hw1	homework	4/29/2001	Visual Basic	0.1	8.8		
31	26	Susan Jones	5	quiz2	test	5/15/2001	Algebra	0.14	11.76		





HOUSING	Projected Cost	Actual Cost	Difference
Mortgage or rent	\$1,000.00	\$1,000.00	\$0.00
Phone	\$54.00	\$100.00	-\$46.00
Electricity	\$44.00	\$56.00	-\$12.00
Gas	\$22.00	\$28.00	-\$6.00
Water and sewer	\$8.00	\$8.00	\$0.00
Cable	\$34.00	\$34.00	\$0.00
Waste removal	\$10.00	\$10.00	\$0.00
Maintenance or repairs	\$23.00	\$0.00	\$23.00
Supplies	\$0.00	\$0.00	\$0.00
Other	\$0.00	\$0.00	\$0.00
Subtotal			-\$41.00



	A	B	C	D	E	F	G	H	I
88		79	05/02/2026	\$4,137.64	\$108.53	\$89.56	\$18.96	\$4,048.08	
89		80	05/03/2026	\$4,048.08	\$108.53	\$89.97	\$18.55	\$3,958.11	
90		81	05/04/2026	\$3,958.11	\$108.53	\$90.38	\$18.14	\$3,867.72	
91		82	05/05/2026	\$3,867.72	\$108.53	\$90.80	\$17.73	\$3,776.92	
92		83	05/06/2026	\$3,776.92	\$108.53	\$91.22	\$17.31	\$3,685.71	
93		84	05/07/2026	\$3,685.71	\$108.53	\$91.63	\$16.89	\$3,594.07	
94		85	05/08/2026	\$3,594.07	\$108.53	\$92.05	\$16.47	\$3,502.02	
95		86	05/09/2026	\$3,502.02	\$108.53	\$92.48	\$16.05	\$3,409.54	
96		87	05/10/2026	\$3,409.54	\$108.53	\$92.90	\$15.63	\$3,316.65	
97		88	05/11/2026	\$3,316.65	\$108.53	\$93.32	\$15.20	\$3,223.32	
98		89	05/12/2026	\$3,223.32	\$108.53	\$93.75	\$14.77	\$3,129.57	
99		90	05/01/2027	\$3,129.57	\$108.53	\$94.18	\$14.34	\$3,035.38	
100		91	05/02/2027	\$3,035.38	\$108.53	\$94.61	\$13.91	\$2,940.77	
101		92	05/03/2027	\$2,940.77	\$108.53	\$95.05	\$13.48	\$2,845.72	
102		93	05/04/2027	\$2,845.72	\$108.53	\$95.48	\$13.04	\$2,750.24	
103		94	05/05/2027	\$2,750.24	\$108.53	\$95.92	\$12.61	\$2,654.32	
104		95	05/06/2027	\$2,654.32	\$108.53	\$96.36	\$12.17	\$2,557.96	
105		96	05/07/2027	\$2,557.96	\$108.53	\$96.80	\$11.72	\$2,461.16	
106		97	05/08/2027	\$2,461.16	\$108.53	\$97.25	\$11.28	\$2,363.91	
107		98	05/09/2027	\$2,363.91	\$108.53	\$97.69	\$10.83	\$2,266.22	
108		99	05/10/2027	\$2,266.22	\$108.53	\$98.14	\$10.39	\$2,168.08	
109		100	05/11/2027	\$2,168.08	\$108.53	\$98.59	\$9.94	\$2,069.49	
110		101	05/12/2027	\$2,069.49	\$108.53	\$99.04	\$9.49	\$1,970.45	
111		102	05/01/2028	\$1,970.45	\$108.53	\$99.50	\$9.03	\$1,870.95	



	Type	Quantity	
	Apple	19	
	Blueberries	28	
	Grapes	27	
	Kiwi	30	
	Lemon	25	
	Lime	16	
	Mango	20	
	Orange	27	
	Peach	14	
	Pear	15	



Course Agenda



Grouping and Outlining Your Data

Inserting Totals and Subtotals

Applying Conditional Formatting

Inserting Sparklines

Exploring Other Excel Capabilities



Module Agenda



Grouping vs. Outlining

Group on Rows and Columns

Apply and Remove Groups and Outlines



Why Group and Outline Data?

Unstructured

—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

Data Obscurity



Structured

—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

Data Insights



Grouping and Outlining provides
structure
and therefore leads to

understanding



Grouping

Unstructured

Orange	Black	Black	Black
Brown	Black	Black	Black
Purple	Black	Black	Black
Green	Black	Black	Black
Orange	Black	Black	Black
Green	Black	Black	Black
Purple	Black	Black	Black
Green	Black	Black	Black

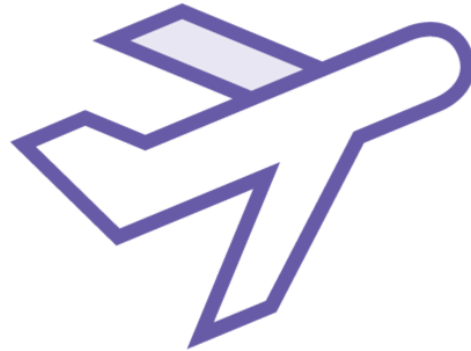


Grouped

Orange	Black	Black	Black
Orange	Black	Black	Black
Green	Black	Black	Black
Green	Black	Black	Black
Purple	Black	Black	Black
Purple	Black	Black	Black







Grouping is simple
and intuitive

Grouping



A max of 8 Outline Levels are allowed

Outlining

—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—





Grouping vs. Outlining

Grouping

	—	—	—
	—	—	—
			—
			—
	—	—	—
	—	—	—
			—
			—

Outlining

—	—		—
—	—		—
—	—		—
—	—		—

Outlining provides the option to collapse and expand related sections of the data



Rules for Applying Groups & Outlines



There must be a common grouping criteria



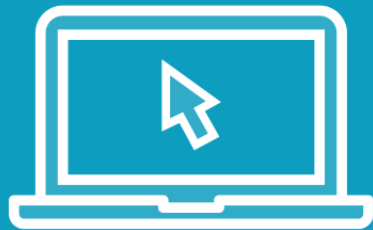
The data must be sorted by the grouped item(s)



You're going to have to insert some blank rows to act as a separator between the groups



Demo



Creating Groups and Outlines



Demo



Removing Groups and Outlines



Module Summary



Grouping vs. Outlining

Group on rows and columns

Apply and remove Groups and Outlines

