



Module 4: Visualisations (Excel and Tableau)

Mission 4.1: Excel Pivot Tables and Charts

With your cleaned Google sheet, we're going to perform some functions to get additional data on the Udemy courses and consolidate and present this clearly. To do this, we will be using the Right/Left Function, IF function, VLookup and we will create Pivot Tables and Charts.

When viewing the videos below, make sure to set the video quality to 1080p.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Review #	Brand	Variety	Style	Country	Stars	Top Ten	Reviews	Left/Right Function	IF function										
2	2560 New Touch	TV Instant Ramen	Instant	Japan	3.75	6482	1	1142												
3	2576 Just Way	Noodles Spicy N Pack	Spicy	Taiwan	4	6665														
4	2578 Nissin	Cup Noodles Sn Cup	USA	2.25	6695															
5	2577 Wei Lh	GIGE Ramen Sn Cup	Taiwan	2.75	7053															
6	2578 Ching's Secret	Singapore Curry Pack	India	3.75	8631															
7	2575 Samyang Foods	Samyang Spicy Noodle Sn Pack	South Korea	4.75	5937															
8	2574 Ottogi	Spoon Delight	Japan	4	1772															
9	2573 Aude Shoku	Nakayuki Kinen Tray	Japan	3.75	1288															
10	2572 Rijk'n'Dry	Hokkaido Soya Si Pack	Japan	0.25	2305															
11	2571 KOKA	The Original Spicy Pack	Singapore	2.5	5286															
12	2570 Tao Kao Nai	Creamy tom Yum Pack	Thailand	5	1037															
13	2569 Yenramen	Yokohama Spicy Ramen Pack	USA	5	3016															
14	2568 Nissin	Mr. Bihun Soi-Print Pack	South Korea	4.25	2511															
15	2567 Nissin	Dela Buto Kimchi Bowl	Japan	4.5	2967															
16	2566 Nissin	Denrei Ramen 1 Pack	Hong Kong	5	3395															
17	2565 KOKA	Mushroom Flav Cup	Singapore	3.5	2283															
18	2564 TRDP	Maria Masa Nt Pack	India	3.75	2321															
19	2563 Yenramen	Tokyo Shoya Ra Pack	USA	5	7656															
20	2562 Saito Tay	Mr. Bihun Soi Print	Vietnam	4	2777															
21	2561 Paldo	Premium Gomita Pack	South Korea	4	3608															
22	2560 Nissin	Cup Noodles Lal Cup	Hong Kong	4.25	3502															
23	2559 Jackpot Teriyaki	Beef Ramen	Pack	USA	5	4637														
24	2558 KOKA	Creamy Souq M	Singapore	5	6774															
25	2557 Yenramen	Signature Ramen R Pack	USA	4.75	3003															
26	2556 Ching's Secret	Hot Garlic Instant Pack	India	4.25	6818															
27	2555 Samyang Foods	Song Yang Kinc Bow	South Korea	4.25	8028															
28	2554 Yum-Me	Instant Noodles Pack	Ghana	3.5	6368															
29	2553 Nissin	Hakata Ramen 1 Bowl	Japan	4.75	6948															
30	2552 KOKA	Perfume Ramen	Indonesia	5	8225															
31	2551 Nissin	Signature Ramen 1 Pack	Singapore	4	137															
32	2550 Samyang Foods	Paengpaeng Ramen Pack	South Korea	5	6532															
33	2549 Nissin	Gelkara Ramen Pack	Indonesia	4.5	7907															
34	2548 Ottogi	Plain Instant Noodles Pack	South Korea	Unrated	1052															
35	2547 Sichuan Guanyu	Chongqing Spicy Bowl	China	4	3828															
36	2546 New Touch	Supo-Men Noodle Bowl	Japan	3.75	2499															
37	2545 Ottogi	Cup Noodles Sn Cup	USA	5	4755															
38	2544 Ottogi	Cup Noodles Sn Cup	USA	1.5	2298															
39	2543 Ottogi	Cup Noodles Sn Cup	Japan	5	6361															
40	2542 Ottogi	Cup Noodles Sn Cup	Japan	1.5	1097															

Right/Left Function

While there is a published time available for each course, we want to know the date that each course was published without the time stamp. Use the Right or Left function to create a 'Date' Column.

Excel/Sheets - IF Function



Watch on YouTube

Review	Brand	Variety	Stars	Country	Top Ten	Reviews	Left/Right Function	Function
2560 No. 1 Ramen	Y's Restaurant	T Cup	3.75	Japan	6842	1142	=IF(A2="Non Pack",	Non Pack
2579 Just Wey	Noodles Spicy	I Pack	1	Taiwan	6865	1142	=IF(A2="Non Pack",	Non Pack
2578 Nissin	Cup Noodles CH	Cup	2.25	USA	7053	1142	=IF(A2="Non Pack",	Non Pack
2577 Wei Lh	GSE Ramen	Sn Pack	2.75	Taiwan	8631	1142	=IF(A2="Non Pack",	Non Pack
2576 Ching's Secret	Singapore Curry	Box	3.75	India	8937	1173	=IF(A2="Non Pack",	Non Pack
2575 Instant Foods	Spicy Noodle	Box Pack	4.75	South Korea	1173	1298	=IF(A2="Non Pack",	Non Pack
2574 Aonodori	Spicy Deli Tuna	Cup	4	Japan	1298	2305	=IF(A2="Non Pack",	Non Pack
2573 Ikeda Shokai	Nabeyaki Kibun	Tray	3.75	Japan	2305	5298	=IF(A2="Non Pack",	Non Pack
2572 Ripse'n'Dry	Hokkaido Soy Si	Pack	0.25	Japan	5298	1097	=IF(A2="Non Pack",	Non Pack
2571 KOKA	The Original Spicy	Pack	2.5	Singapore	1097	1097	=IF(A2="Non Pack",	Non Pack
2570 Tso Kee Noodle	Creamy	Box	5	Thailand	1097	1097	=IF(A2="Non Pack",	Non Pack
2569 Nongsham	Mr. Bibim	Stir-Fri	5	Korea	1097	1097	=IF(A2="Non Pack",	Non Pack
2567 Nissin	Dela Buto Kined	Box	4.5	Japan	1097	2551	=IF(A2="Non Pack",	Non Pack
2566 Nissin	Domae Ramen	Pack	5	Hong Kong	2551	2967	=IF(A2="Non Pack",	Non Pack
2565 KOKA	Mushroom Flavoured	Cup	3.5	Singapore	2967	3385	=IF(A2="Non Pack",	Non Pack
2564 TRIP	Mario Masakan	Box	3.75	India	3385	2283	=IF(A2="Non Pack",	Non Pack
2563 Yamehant	Taste of Asia	Box	5	China	2283	2221	=IF(A2="Non Pack",	Non Pack
2562 Binh Tay	Mi Hai Cup	Vietnam	4	Vietnam	2221	6077	=IF(A2="Non Pack",	Non Pack
2561 Palio	Premium Gomita	Pack	4	South Korea	6077	3608	=IF(A2="Non Pack",	Non Pack
2560 Nissin	Cup Noodles Lal	Cup	4.25	Hong Kong	3608	3502	=IF(A2="Non Pack",	Non Pack
2559 Jackpot Teriyaki	Beef Ramen	Pack	5	USA	3502	4637	=IF(A2="Non Pack",	Non Pack
2558 Nongsham	Signature Tom Yum	Box	5	Singapore	4637	137	=IF(A2="Non Pack",	Non Pack
2557 Yamehant	Sapporo Miso	Pack	4.75	USA	137	6532	=IF(A2="Non Pack",	Non Pack
2556 Ching's Secret	Hot Garlic Instant	Pack	4.25	India	6532	6907	=IF(A2="Non Pack",	Non Pack
2555 Samyang Foods	Song Song Kim	Bowl	4.25	South Korea	6907	8028	=IF(A2="Non Pack",	Non Pack
2554 Yum-Me!	Instant Noodles	Pack	3.5	Ghana	8028	6368	=IF(A2="Non Pack",	Non Pack
2553 Nissin	Hakata Ramen	Box	4.75	Japan	6368	6648	=IF(A2="Non Pack",	Non Pack
2552 M-Kuall	Pengang White C	Box	5	Malaysia	6648	6648	=IF(A2="Non Pack",	Non Pack
2551 KOKA	Signature Tom Y	Pack	4	Singapore	6648	1298	=IF(A2="Non Pack",	Non Pack
2550 Samyang Foods	Pangaejang Ram	Pack	5	South Korea	1298	4755	=IF(A2="Non Pack",	Non Pack
2549 Nissin	Gekka Ramen	Pack	4.5	Indonesia	4755	2286	=IF(A2="Non Pack",	Non Pack
2548 Ottogi	Plain Instant N	Pack	Unrated	South Korea	2286	6361	=IF(A2="Non Pack",	Non Pack
2547 Sichuan Guanyi	Chongqing Spicy	Bowl	4	China	6361	1097	=IF(A2="Non Pack",	Non Pack
2546 Nissin	Instant Noodles	Pack	3.75	China	1097	1097	=IF(A2="Non Pack",	Non Pack
2545 KOKA	Instant Noodles	Pack	5	Singapore	1097	1097	=IF(A2="Non Pack",	Non Pack
2544 Ottogi	Cup	Cup	1.5	USA	1097	1097	=IF(A2="Non Pack",	Non Pack
2543 Ottogi	Cup	Cup	1.5	Sup	1097	1097	=IF(A2="Non Pack",	Non Pack

IF Function

We want to know how many courses are free and how many are paid. Use the IF Function to create a column that indicates whether a course is free or paid.

Excel/Sheets - V Lookup



Watch on YouTube

Review	Brand	Variety	Stars	Country	Top Ten	Reviews	Left/Right Function	Function
2560 No. 1 Ramen	Y's Restaurant	T Cup	3.75	Japan	6842	1142	=IF(A2="In Asia",	In Asia
2579 Just Wey	Noodles Spicy	I Pack	1	Taiwan	6865	1142	=IF(A2="In Asia",	In Asia
2578 Nissin	Cup Noodles CH	Cup	2.25	USA	7053	1142	=IF(A2="In Asia",	In Asia
2577 Wei Lh	GSE Ramen	Sn Pack	2.75	Taiwan	8631	1142	=IF(A2="In Asia",	In Asia
2576 Ching's Secret	Singapore Curry	Box	3.75	India	8937	1173	=IF(A2="In Asia",	In Asia
2575 Instant Foods	Spicy Noodle	Box Pack	4.75	South Korea	1173	1298	=IF(A2="In Asia",	In Asia
2574 Aonodori	Spicy Deli Tuna	Cup	4	Japan	1298	2305	=IF(A2="In Asia",	In Asia
2573 Ikeda Shokai	Nabeyaki Kibun	Tray	3.75	Japan	2305	5298	=IF(A2="In Asia",	In Asia
2572 Ripse'n'Dry	Hokkaido Soy Si	Pack	0.25	Japan	5298	1097	=IF(A2="In Asia",	In Asia
2571 KOKA	The Original Spicy	Pack	2.5	Singapore	1097	1097	=IF(A2="In Asia",	In Asia
2570 Tso Kee Noodle	Creamy	Box	5	Thailand	1097	1097	=IF(A2="In Asia",	In Asia
2569 Nongsham	Mr. Bibim	Stir-Fri	5	Korea	1097	2551	=IF(A2="In Asia",	In Asia
2567 Nissin	Dela Buto Kined	Box	4.5	Japan	2551	2967	=IF(A2="In Asia",	In Asia
2566 Nissin	Domae Ramen	Pack	5	Hong Kong	2967	3385	=IF(A2="In Asia",	In Asia
2565 KOKA	Mushroom Flavoured	Cup	3.5	Singapore	3385	2283	=IF(A2="In Asia",	In Asia
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2561 Palio	Premium Gomita	Pack	4	South Korea	3608	3502	=IF(A2="In Asia",	In Asia
2560 Nissin	Cup Noodles Lal	Cup	4.25	Hong Kong	3502	4637	=IF(A2="In Asia",	In Asia
2559 Jackpot Teriyaki	Beef Ramen	Pack	5	USA	4637	137	=IF(A2="In Asia",	In Asia
2558 Nongsham	Signature Tom Yum	Box	5	Singapore	137	6532	=IF(A2="In Asia",	In Asia
2557 Yamehant	Sapporo Miso	Pack	4.75	USA	6532	6907	=IF(A2="In Asia",	In Asia
2556 Ching's Secret	Hot Garlic Instant	Pack	4.25	India	6907	8028	=IF(A2="In Asia",	In Asia
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2554 Yum-Me!	Instant Noodles	Pack	3.5	Ghana	6368	6648	=IF(A2="In Asia",	In Asia
2553 Nissin	Hakata Ramen	Box	4.75	Japan	6648	6648	=IF(A2="In Asia",	In Asia
2552 M-Kuall	Pengang White C	Box	5	Malaysia	6648	1298	=IF(A2="In Asia",	In Asia
2551 KOKA	Signature Tom Y	Pack	4	Singapore	1298	4755	=IF(A2="In Asia",	In Asia
2550 Samyang Foods	Pangaejang Ram	Pack	5	South Korea	4755	2286	=IF(A2="In Asia",	In Asia
2549 Nissin	Gekka Ramen	Pack	4.5	Indonesia	2286	6361	=IF(A2="In Asia",	In Asia
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2546 Nissin	Instant Noodles	Pack	3.75	China	1097	1097	=IF(A2="In Asia",	In Asia
2545 KOKA	Instant Noodles	Pack	5	Singapore	1097	1097	=IF(A2="In Asia",	In Asia
2544 Ottogi	Cup	Cup	1.5	USA	1097	1097	=IF(A2="In Asia",	In Asia
2543 Ottogi	Cup	Cup	1.5	Sup	1097	1097	=IF(A2="In Asia",	In Asia

VLookup

Your manager has asked for a list of the top 20 most subscribed courses. She has asked for

- Their level
- Whether they are free or paid,
- Whether any are free beginner courses,
- Duration of the course
- The date they were published

Use the VLookup function to find and organise this information on a separate sheet. She

wants to understand the trends for the most subscribed courses.

The screenshot shows a Google Sheets document titled "Ramen Reviews - Pivot Table". The Pivot Table is titled "COUNT of New Style" and includes columns for Country (India, Japan, Singapore, Taiwan, Thailand, USA) and Item Type (Bar, Bowl, Box, Can, Cup, Pack, Tray). The data shows the count of new styles for each country and item type. A pie chart is also visible in the top right corner. Below the sheet, there is a "Watch on YouTube" button.

Country	Bar	Bowl	Box	Can	Cup	Pack	Tray	Grand Total
India	138	2		49	155	20	37	352
Japan	13			27	69			109
Singapore	37			2	181	3		229
Taiwan	44			48	97	2		195
Thailand	1	70	1	70	128	82	323	
USA								1229
Grand Total	1	240	3	1	499	698	77	

Pivot Tables and Charts

Create the following Pivot Tables and Charts:

- Total number of subscribers for each subject (Pie Chart)
- Average number of subscribers for each subject (Bar Chart)
- Average cost per subject at each level (Bar Chart)
- Average content duration for each subject (Bar Chart)
- Average rating per subject for each level (Column Chart)
- Any other data that you feel will be important to include in your analysis



Module 4: Visualisations (Excel and Tableau)

Mission 4.1: Excel Pivot Tables and Charts

Mission 4.2 Understanding the Problem

Once you have framed the problem and gathered initial insights from the data, you can ask the following questions as you dig deeper into your analysis.

- What do you see happening?
- What are the specific symptoms of the problem?
- What is your hypothesis for the cause of the problem?

Five 'Whys' approach

Once you have the problem better defined, you can use Root Cause Analysis to get deeper into the 'why' of the business problem. We do this with the 5 Why's approach, by simply asking 'why' five times.

While asking Why is easy, what we're interested in is the answer. Each time you answer why the next time gets more difficult as you have to think deeper behind the reasons for this. As you ask why, you may find that you have multiple answers for the same question

For more on using this tool for your analysis, read this article:

5 Whys: The Ultimate Root Cause Analysis Tool

5 Whys: The Ultimate Root Cause Analysis Tool

Unpredicted problems may occur in any team or process. However, problems are just symptoms of deeper issues. Fixing a problem quickly

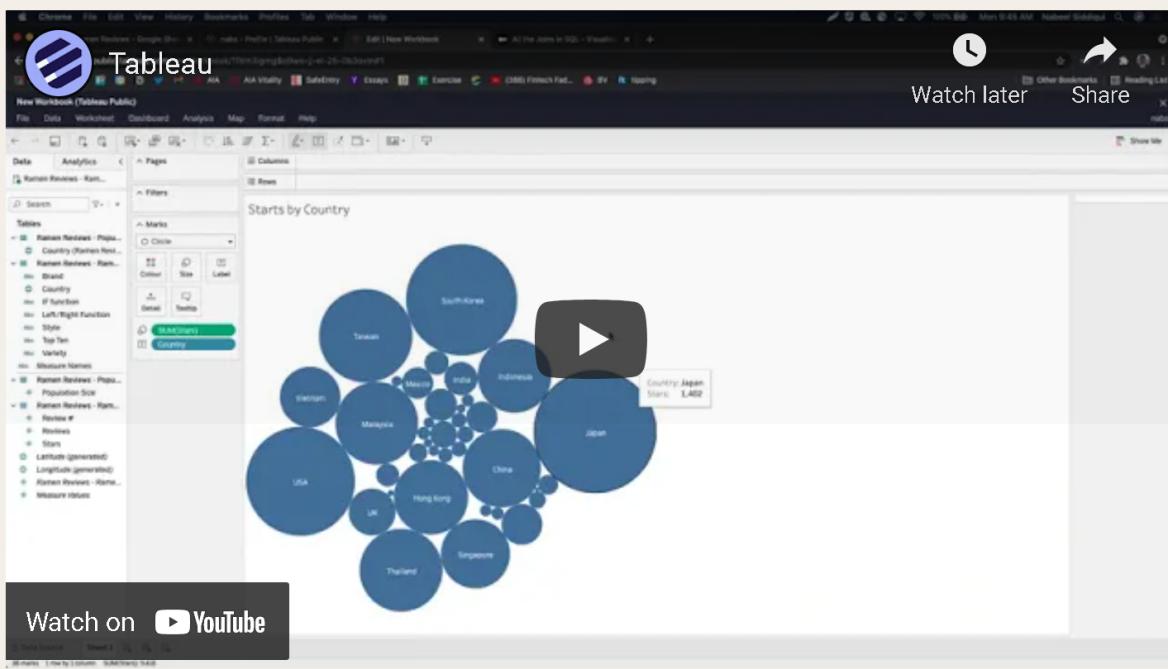
 kanbanize.com



Task

Begin your analysis of the problem with your findings from the data. In Module 5, you will write a report on your findings.

Tableau is a tool that is widely used by Data Analysts to create reports, visualize data and produce dashboards to be shared and iterated on. We will be using Tableau to create additional data visualizations that will support your findings in the previous module.



Task

Upload your data to Tableau. [This article may help.](#) (Note that the article is for SQL, but can be applied to csv and Excel files).

Create visualisations to support your analysis from the previous mission.

Create a dashboard with all of the relevant visualisations for your analysis.