ARYAMAN MISHRA

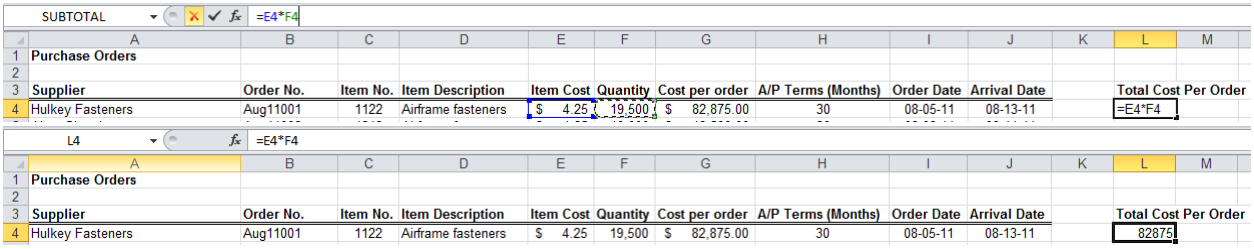
Assignment Day -1

1. In the Purchase order data set,

a. Total cost per order

To calculate the total cost per order, you can multiply the item cost by the quantity for each order and sum it up. Here's the formula:

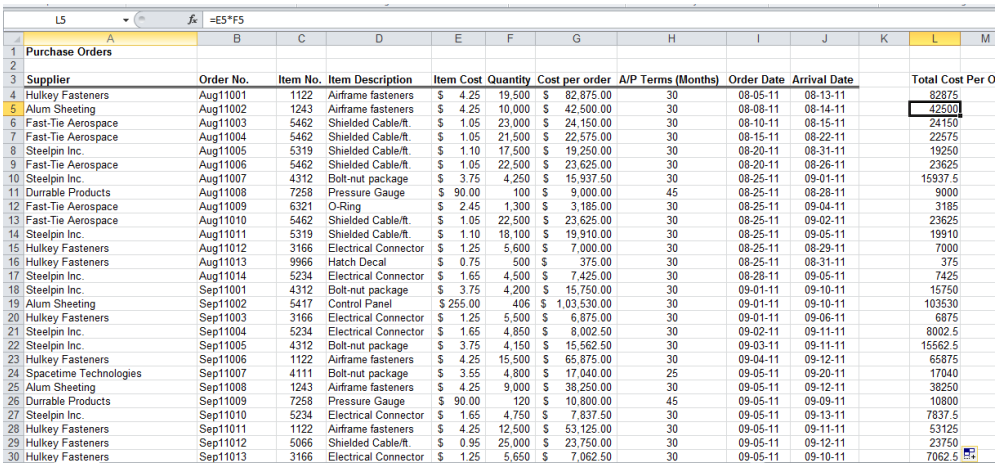
=E4*F4



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Purchase Orders												
2													
3	Supplier	Order No.	Item No.	Item Description	Item Cost	Quantity	Cost per order	A/P Terms (Months)	Order Date	Arrival Date		Total Cost Per Order	
4	Hulkey Fasteners	Aug11001	1122	Airframe fasteners	$ 4.25	19,500	$ 82,875.00	30	08-05-11	08-13-11		=E4*F4	

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Purchase Orders												
2													
3	Supplier	Order No.	Item No.	Item Description	Item Cost	Quantity	Cost per order	A/P Terms (Months)	Order Date	Arrival Date		Total Cost Per Order	
4	Hulkey Fasteners	Aug11001	1122	Airframe fasteners	$ 4.25	19,500	$ 82,875.00	30	08-05-11	08-13-11		82875	

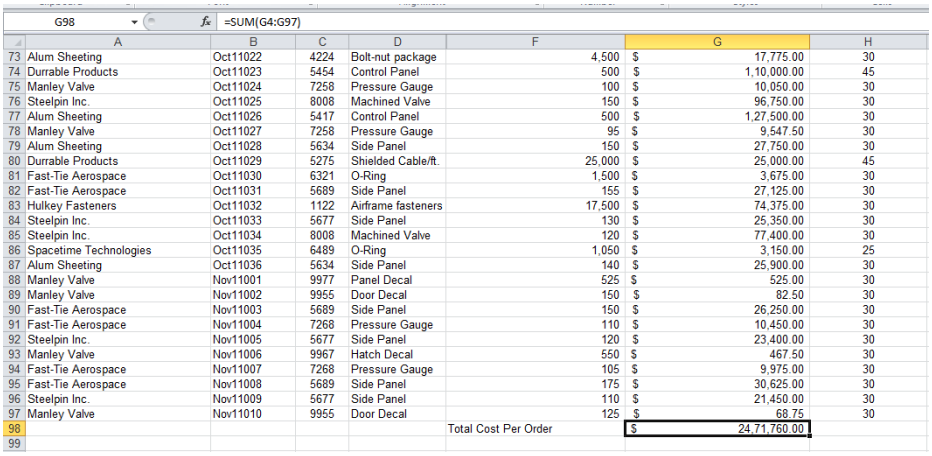
Drag the cursor down till the end of the records.



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Purchase Orders												
2													
3	Supplier	Order No.	Item No.	Item Description	Item Cost	Quantity	Cost per order	A/P Terms (Months)	Order Date	Arrival Date		Total Cost Per O	
4	Hulkey Fasteners	Aug11001	1122	Airframe fasteners	$ 4.25	19,500	$ 82,875.00	30	08-05-11	08-13-11		82875	
5	Alum Sheeting	Aug11002	1243	Airframe fasteners	$ 4.25	10,000	$ 42,500.00	30	08-08-11	08-14-11		42500	
6	Fast-Tie Aerospace	Aug11003	5462	Shielded Cable/ft.	$ 1.05	23,000	$ 24,150.00	30	08-10-11	08-15-11		24150	
7	Fast-Tie Aerospace	Aug11004	5462	Shielded Cable/ft.	$ 1.05	21,500	$ 22,575.00	30	08-15-11	08-22-11		22575	
8	Steelpin Inc.	Aug11005	5319	Shielded Cable/ft.	$ 1.10	17,500	$ 19,250.00	30	08-20-11	08-31-11		19250	
9	Fast-Tie Aerospace	Aug11006	5462	Shielded Cable/ft.	$ 1.05	22,500	$ 23,625.00	30	08-20-11	08-26-11		23625	
10	Steelpin Inc.	Aug11007	4312	Bolt-nut package	$ 3.75	4,250	$ 15,937.50	30	08-25-11	09-01-11		15937.5	
11	Durrable Products	Aug11008	7258	Pressure Gauge	$ 90.00	100	$ 9,000.00	45	08-25-11	08-28-11		9000	
12	Fast-Tie Aerospace	Aug11009	6321	O-Ring	$ 2.45	1,300	$ 3,185.00	30	08-25-11	09-04-11		3185	
13	Fast-Tie Aerospace	Aug11010	5462	Shielded Cable/ft.	$ 1.05	22,500	$ 23,625.00	30	08-25-11	09-02-11		23625	
14	Steelpin Inc.	Aug11011	5319	Shielded Cable/ft.	$ 1.10	18,100	$ 19,910.00	30	08-25-11	09-05-11		19910	
15	Hulkey Fasteners	Aug11012	3166	Electrical Connector	$ 1.25	5,600	$ 7,000.00	30	08-25-11	08-29-11		7000	
16	Hulkey Fasteners	Aug11013	9966	Hatch Decal	$ 0.75	500	$ 375.00	30	08-25-11	08-31-11		375	
17	Steelpin Inc.	Aug11014	5234	Electrical Connector	$ 1.65	4,500	$ 7,425.00	30	08-28-11	09-05-11		7425	
18	Steelpin Inc.	Sep11001	4312	Bolt-nut package	$ 3.75	4,200	$ 15,750.00	30	09-01-11	09-10-11		15750	
19	Alum Sheeting	Sep11002	5417	Control Panel	$ 255.00	406	$ 1,03,530.00	30	09-01-11	09-10-11		103530	
20	Hulkey Fasteners	Sep11003	3166	Electrical Connector	$ 1.25	5,500	$ 6,875.00	30	09-01-11	09-06-11		6875	
21	Steelpin Inc.	Sep11004	5234	Electrical Connector	$ 1.65	4,850	$ 8,002.50	30	09-02-11	09-11-11		8002.5	
22	Steelpin Inc.	Sep11005	4312	Bolt-nut package	$ 3.75	4,150	$ 15,562.50	30	09-03-11	09-11-11		15562.5	
23	Hulkey Fasteners	Sep11006	1122	Airframe fasteners	$ 4.25	15,500	$ 65,875.00	30	09-04-11	09-12-11		65875	
24	Spacetime Technologies	Sep11007	4111	Bolt-nut package	$ 3.55	4,800	$ 17,040.00	25	09-05-11	09-20-11		17040	
25	Alum Sheeting	Sep11008	1243	Airframe fasteners	$ 4.25	9,000	$ 38,250.00	30	09-05-11	09-12-11		38250	
26	Durrable Products	Sep11009	7258	Pressure Gauge	$ 90.00	120	$ 10,800.00	45	09-05-11	09-09-11		10800	
27	Steelpin Inc.	Sep11010	5234	Electrical Connector	$ 1.65	4,750	$ 7,837.50	30	09-05-11	09-13-11		7837.5	
28	Hulkey Fasteners	Sep11011	1122	Airframe fasteners	$ 4.25	12,500	$ 53,125.00	30	09-05-11	09-11-11		53125	
29	Hulkey Fasteners	Sep11012	5066	Shielded Cable/ft.	$ 0.95	25,000	$ 23,750.00	30	09-05-11	09-12-11		23750	
30	Hulkey Fasteners	Sep11013	3166	Electrical Connector	$ 1.25	5,650	$ 7,062.50	30	09-05-11	09-10-11		7062.5	

Formula

=SUM(G4:G97)



	A	B	C	D	F	G	H
73	Alum Sheeting	Oct11022	4224	Bolt-nut package	4,500	$ 17,775.00	30
74	Durrable Products	Oct11023	5454	Control Panel	500	$ 1,10,000.00	45
75	Manley Valve	Oct11024	7258	Pressure Gauge	100	$ 10,050.00	30
76	Steelpin Inc.	Oct11025	8008	Machined Valve	150	$ 96,750.00	30
77	Alum Sheeting	Oct11026	5417	Control Panel	500	$ 1,27,500.00	30
78	Manley Valve	Oct11027	7258	Pressure Gauge	95	$ 9,547.50	30
79	Alum Sheeting	Oct11028	5634	Side Panel	150	$ 27,750.00	30
80	Durrable Products	Oct11029	5275	Shielded Cable/ft.	25,000	$ 25,000.00	45
81	Fast-Tie Aerospace	Oct11030	6321	O-Ring	1,500	$ 3,675.00	30
82	Fast-Tie Aerospace	Oct11031	5689	Side Panel	155	$ 27,125.00	30
83	Hulkey Fasteners	Oct11032	1122	Airframe fasteners	17,500	$ 74,375.00	30
84	Steelpin Inc.	Oct11033	5677	Side Panel	130	$ 25,350.00	30
85	Steelpin Inc.	Oct11034	8008	Machined Valve	120	$ 77,400.00	30
86	Spacetime Technologies	Oct11035	6489	O-Ring	1,050	$ 3,150.00	25
87	Alum Sheeting	Oct11036	5634	Side Panel	140	$ 25,900.00	30
88	Manley Valve	Nov11001	9977	Panel Decal	525	$ 525.00	30
89	Manley Valve	Nov11002	9955	Door Decal	150	$ 82.50	30
90	Fast-Tie Aerospace	Nov11003	5689	Side Panel	150	$ 26,250.00	30
91	Fast-Tie Aerospace	Nov11004	7268	Pressure Gauge	110	$ 10,450.00	30
92	Steelpin Inc.	Nov11005	5677	Side Panel	120	$ 23,400.00	30
93	Manley Valve	Nov11006	9967	Hatch Decal	550	$ 467.50	30
94	Fast-Tie Aerospace	Nov11007	7268	Pressure Gauge	105	$ 9,975.00	30
95	Fast-Tie Aerospace	Nov11008	5689	Side Panel	175	$ 30,625.00	30
96	Steelpin Inc.	Nov11009	5677	Side Panel	110	$ 21,450.00	30
97	Manley Valve	Nov11010	9955	Door Decal	125	$ 68.75	30
98				Total Cost Per Order		$ 24,71,760.00	
99							

b. Number of orders with A/P term short than 25 months

J102 =COUNTIF(H:H, "<25")

	A	B	C	D	E	F	G	H	I	J	K
100											
101	a. Total cost per order									Check the Column.	
102	b. Number of orders with A/P term short than 25 months									5	

You can use the COUNTIF function for this:

=COUNTIF(H:H, "<25")

c. Number of order placed for Pressure gauge

Again, you can use the COUNTIF function:

=COUNTIF(D4:D97,"Pressure Gauge")

J103 =COUNTIF(D4:D97,"Pressure Gauge")

	A	B	C	D	E	F	G	H	I	J	K
103	c. Number of order placed for Pressure gauge									7	

d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020

B107 =VLOOKUP("Aug11008",B4:G97,6,FALSE)

	A	B	C	D	E	F	G	H	I
104	d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020								
105									
106		Cost Per Order		Item Description					
107	Aug11008	9000		Pressure Gauge					
108	Sept11023	7425		Gasket					
109	Oct11020	72250		Airframe fasteners					
110									

D107 =VLOOKUP("Aug11008",B4:G97,3,FALSE)

	A	B	C	D	E	F	G	H	I
104	d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020								
105									
106		Cost Per Order		Item Description					
107	Aug11008	9000		Pressure Gauge					
108	Sept11023	7425		Gasket					
109	Oct11020	72250		Airframe fasteners					
110									

B108 =VLOOKUP("Sep11023",B4:G97,6,FALSE)

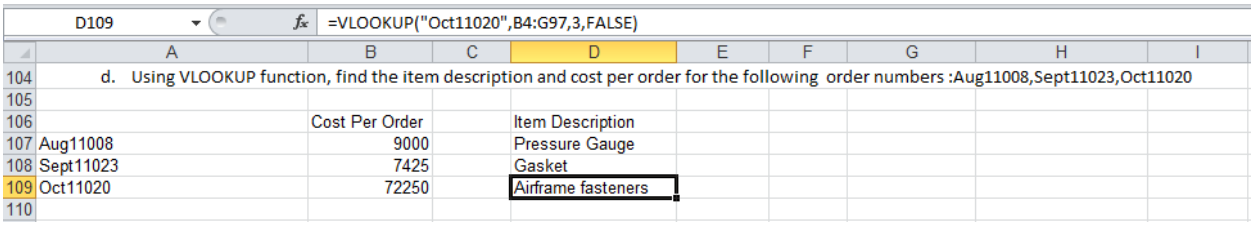
	A	B	C	D	E	F	G	H	I
104	d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020								
105									
106		Cost Per Order		Item Description					
107	Aug11008	9000		Pressure Gauge					
108	Sept11023	7425		Gasket					
109	Oct11020	72250		Airframe fasteners					
110									

D108 =VLOOKUP("Sep11023",B4:G97,3,FALSE)

	A	B	C	D	E	F	G	H	I
104	d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020								
105									
106		Cost Per Order		Item Description					
107	Aug11008	9000		Pressure Gauge					
108	Sept11023	7425		Gasket					
109	Oct11020	72250		Airframe fasteners					
110									

B109 =VLOOKUP("Oct11020",B4:G97,6,FALSE)

	A	B	C	D	E	F	G	H	I
104	d. Using VLOOKUP function, find the item description and cost per order for the following order numbers :Aug11008,Sept11023,Oct11020								
105									
106		Cost Per Order		Item Description					
107	Aug11008	9000		Pressure Gauge					
108	Sept11023	7425		Gasket					
109	Oct11020	72250		Airframe fasteners					
110									



Formulae:

=VLOOKUP("Aug11008",B4:G97,6,FALSE)

=VLOOKUP("Sep11023",B4:G97,6,FALSE)

=VLOOKUP("Oct11020",B4:G97,6,FALSE)

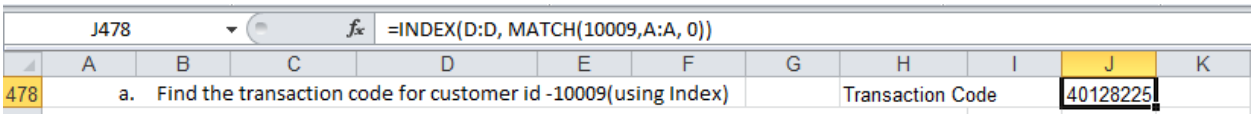
=VLOOKUP("Aug11008",B4:G97,3,FALSE)

=VLOOKUP("Sep11023",B4:G97,3,FALSE)

=VLOOKUP("Oct11020",B4:G97,3,FALSE)

2. In sales Transactions Excel files,

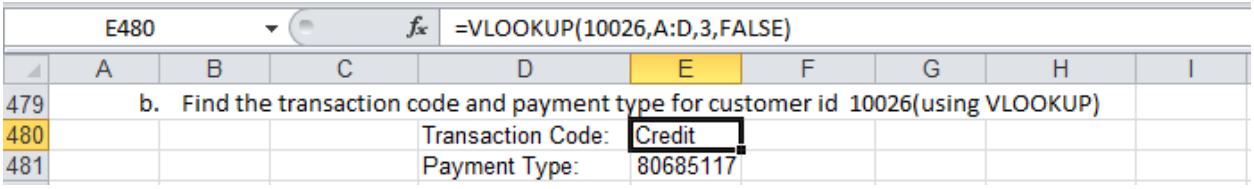
a. Find the transaction code for customer id -10009(using Index)



Formula for Transaction Code:

=INDEX(D:D, MATCH(10009,A:A, 0))

b. Find the transaction code and payment type for customer id 10026(using VLOOKUP)



Formula for Transaction Code:

=VLOOKUP(10026,A:D,3,FALSE)

Formula for Payment Type:

=VLOOKUP(10026,A:D,4,FALSE)

3. In Credit Risk excel files,

a. Using IF function to include new columns ,classify the checking and saving account balances as low if the balance us less than $250,medium if less than $2000 and high otherwise.

b. You can use the IF function to classify the checking and savings account balances into low, medium, or high based on the specified conditions. Here's how you can do it:

For the checking account balance:

=IF(B4<250, "Low", IF(B4<2000, "Medium", "High"))

N4 =IF(B4<250, "Low", IF(B4<2000, "Medium", "High"))

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Credit Risk Data																
2																	
3	Loan Purpose	Checking	Savings	Months Custome	Months Employed	Gender	Marital Status	Age	Housing	Years	Job	Credit Risk		CAB Classification		SAB Classification	
4	Small Appliance	$0	$739	13	12	M	Single	23	Own	3	Unskilled	Low		Low			

For the savings account balance:

P4 =IF(C4<250, "Low", IF(C4<2000, "Medium", "High"))

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Credit Risk Data																
2																	
3	Loan Purpose	Checking	Savings	Months Custome	Months Employed	Gender	Marital Status	Age	Housing	Years	Job	Credit Risk		CAB Classification		SAB Classification	
4	Small Appliance	$0	$739	13	12	M	Single	23	Own	3	Unskilled	Low		Low		Medium	

Drag both columns down with mouse.

P5 =IF(C5<250, "Low", IF(C5<2000, "Medium", "High"))

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Credit Risk Data																
2																	
3	Loan Purpose	Checking	Savings	Months Custome	Months Employed	Gender	Marital Status	Age	Housing	Years	Job	Credit Risk		CAB Classification		SAB Classification	
4	Small Appliance	$0	$739	13	12	M	Single	23	Own	3	Unskilled	Low		Low		Medium	
5	Furniture	$0	$1,230	25	0	M	Divorced	32	Own	1	Skilled	High		Low		Medium	
6	New Car	$0	$389	19	119	M	Single	38	Own	4	Management	High		Low		Medium	
7	Furniture	$638	$347	13	14	M	Single	36	Own	2	Unskilled	High		Medium		Medium	
8	Education	$963	$4,754	40	45	M	Single	31	Rent	3	Skilled	Low		Medium		High	
9	Furniture	$2,827	$0	11	13	M	Married	25	Own	1	Skilled	Low		High		Low	
10	New Car	$0	$229	13	16	M	Married	26	Own	3	Unskilled	Low		Low		Low	
11	Business	$0	$533	14	2	M	Single	27	Own	1	Unskilled	Low		Low		Medium	
12	Small Appliance	$6,509	$493	37	9	M	Single	25	Own	2	Skilled	High		High		Medium	
13	Small Appliance	$966	$0	25	4	F	Divorced	43	Own	1	Skilled	High		Medium		Low	
14	Business	$0	$989	49	0	M	Single	32	Rent	2	Management	High		Low		Medium	
15	New Car	$0	$3,305	11	15	M	Single	34	Rent	2	Unskilled	Low		Low		High	
16	Business	$322	$578	10	14	M	Married	26	Own	1	Skilled	Low		Medium		Medium	
17	New Car	$0	$821	25	63	M	Single	44	Own	1	Skilled	High		Low		Medium	
18	New Car	$396	$228	13	26	M	Single	46	Own	3	Unskilled	Low		Medium		Low	
19	Used Car	$0	$129	31	8	M	Divorced	39	Own	4	Management	Low		Low		Low	
20	Furniture	$652	$732	49	4	F	Divorced	25	Own	2	Skilled	High		Medium		Medium	
21	New Car	$708	$683	13	33	M	Single	31	Own	2	Skilled	Low		Medium		Medium	
22	Repairs	$207	$0	28	116	M	Single	47	Own	4	Skilled	Low		Low		Low	
23	Education	$287	$12,348	7	2	F	Divorced	23	Rent	2	Skilled	High		Medium		High	
24	Furniture	$0	$17,545	34	16	F	Divorced	22	Own	4	Skilled	High		Low		High	
25	Furniture	$101	$3,871	13	5	F	Divorced	26	Rent	4	Skilled	High		Low		High	
26	Furniture	$0	$0	25	23	M	Married	19	Own	4	Skilled	High		Low		Low	
27	Furniture	$0	$485	37	23	F	Divorced	27	Own	2	Management	High		Low		Medium	
28	New Car	$0	$10,723	11	15	M	Single	39	Rent	2	Unskilled	Low		Low		High	
29	Business	$141	$245	22	33	M	Single	26	Own	3	Skilled	Low		Low		Low	
30	Used Car	$0	$0	19	58	M	Single	50	Other	4	Skilled	High		Low		Low	

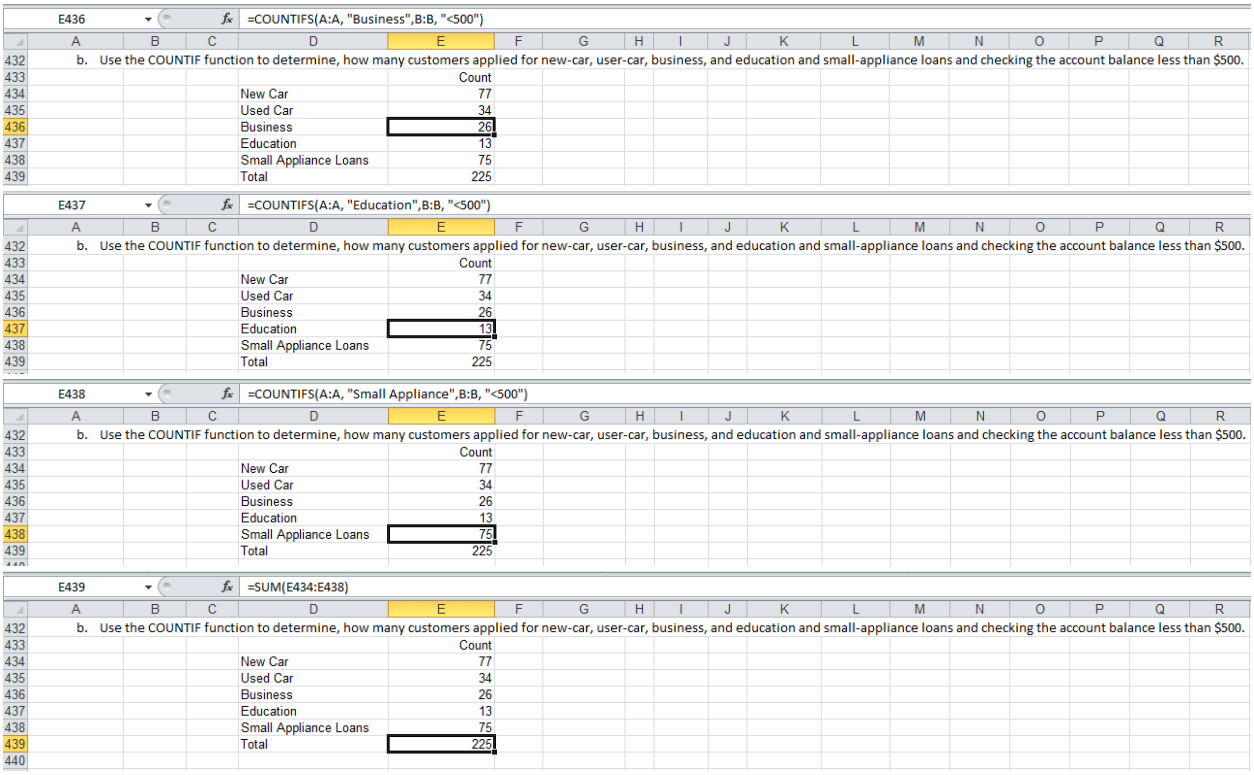
c. Use the COUNTIF function to determine, how many customers applied for new-car, user-car, business, and education and small-appliance loans and checking the account balance less than $500.

E434 =COUNTIFS(A:A, "New Car",B:B, "<500")

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
432	b. Use the COUNTIF function to determine, how many customers applied for new-car, user-car, business, and education and small-appliance loans and checking the account balance less than $500.																	
433					Count													
434				New Car	77													
435				Used Car	34													
436				Business	26													
437				Education	13													
438				Small Appliance Loans	75													
439				Total	225													

E435 =COUNTIFS(A:A, "Used Car",B:B, "<500")

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
432	b. Use the COUNTIF function to determine, how many customers applied for new-car, user-car, business, and education and small-appliance loans and checking the account balance less than $500.																	
433					Count													
434				New Car	77													
435				Used Car	34													
436				Business	26													
437				Education	13													
438				Small Appliance Loans	75													
439				Total	225													
440																		



Formulae:

=COUNTIFS(A:A, "New Car",B:B, "<500")

Counts the number of customers who applied for a "New Car" loan and have a checking account balance less than $500.

=COUNTIFS(A:A, "Used Car",B:B, "<500")

Counts the number of customers who applied for a "Used Car" loan and have a checking account balance less than $500.

=COUNTIFS(A:A, "Business",B:B, "<500")

Counts the number of customers who applied for a "Business" loan and have a checking account balance less than $500.

=COUNTIFS(A:A, "Education",B:B, "<500")

Counts the number of customers who applied for an "Education" loan and have a checking account balance less than $500.

=COUNTIFS(A:A, "Small Appliance",B:B, "<500")

Counts the number of customers who applied for a "Small Appliance" loan and have a checking account balance less than $500.

=SUM(E434:E438)

Calculates the total count obtained from the previous COUNTIFS formulas, likely giving the overall count of customers with checking account balances less than $500 across different loan types.

4. Classify each of the data elements in the sales Transaction database as categorical, ordinal, interval or ratio data.

Let's classify each data element in the sales transaction database:

1. Cust ID: Categorical data, as it serves to uniquely identify each customer.
2. Region: Categorical data, as it represents different regions without any inherent order.
3. Payment: Categorical data, representing different modes of payment without a clear order.
4. Transaction Code: Categorical data, serving as a unique identifier for each transaction.
5. Source: Categorical data, representing different transaction sources without a clear order.
6. Amount: Ratio data, as it represents the dollar amount of the transaction and has a true zero point.
7. Product: Categorical data, representing different products without any inherent order.
8. Time Of Day: Interval data, representing time without a true zero point. It could be considered ordinal if it's divided into categories like "Morning," "Afternoon," and "Evening," but in this case, it appears to be continuous time.

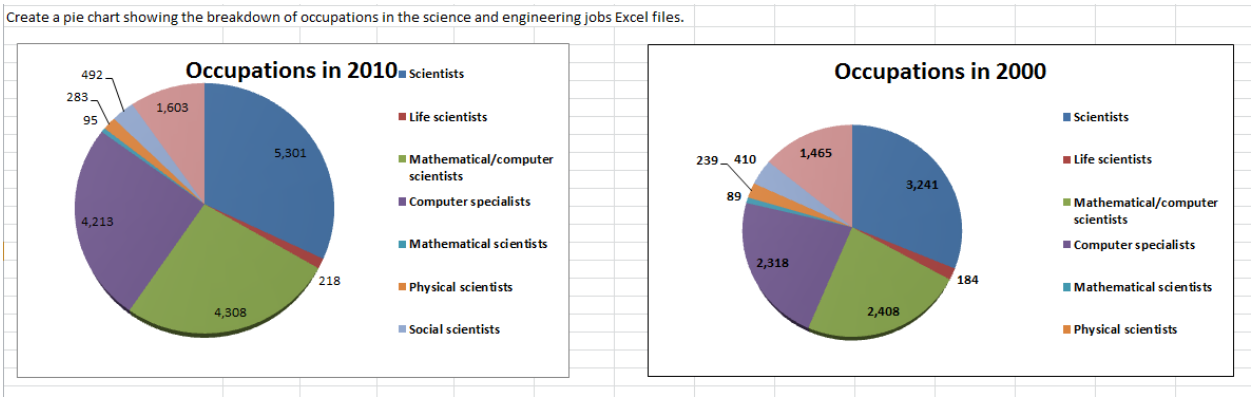
So, the classifications are as follows:

- Categorical: Cust ID, Region, Payment, Transaction Code, Source, Product
- Ratio: Amount
- Interval: Time Of Day

5. Create a pie chart showing the breakdown of occupations in the science and engineering jobs Excel files.

- Open Excel: Launch Microsoft Excel on your computer.
- Import Data: Open the science and engineering jobs Excel files. Make sure each file contains a column with occupation names and another column with corresponding counts or percentages.
- Merge Data (if necessary): If you have separate files for science and engineering jobs, consider merging them into one Excel sheet for easier analysis. You can copy and paste the data from one file into the other or use Excel's import functions to combine them.
- Prepare Data: Ensure that your data is clean and organized. Remove any unnecessary rows or columns, and make sure each column has a clear heading.
- Select Data: Click and drag to select the columns containing the occupation names and their corresponding counts or percentages.

- Insert Pie Chart: Go to the "Insert" tab on the Excel ribbon and click on the "Pie Chart" button. Select a basic pie chart style to begin with.
- Customize Pie Chart: Once the pie chart is inserted, you can customize it to better represent your data. Right-click on the chart and select "Format Chart Area" to change the chart's appearance, such as colors, labels, and fonts.
- Labeling: Ensure that each segment of the pie chart is labeled appropriately. You can do this by clicking on the chart, then clicking on the "Chart Elements" button (a plus sign icon usually located on the top right corner of the chart), and checking the "Data Labels" option.
- Explode Segments (if necessary): If you want to emphasize specific segments of the pie chart, you can "explode" them. Click on the chart, then click on the specific segment you want to explode and drag it away from the center of the chart.
- Title and Legend: Add a title to your chart that clearly describes the data being represented. Also, ensure that there's a legend to explain what each color on the pie chart represents. You can add or edit these elements by clicking on the chart and selecting the "Chart Elements" button.
- Review and Finalize: Review your pie chart to ensure that it accurately represents the breakdown of occupations in the science and engineering jobs data. Make any necessary adjustments to the chart's appearance or labeling.
- Save and Share: Once you're satisfied with your pie chart, save your Excel file to preserve your work. You can then share the file with others or export the chart as an image to include in presentations or reports.



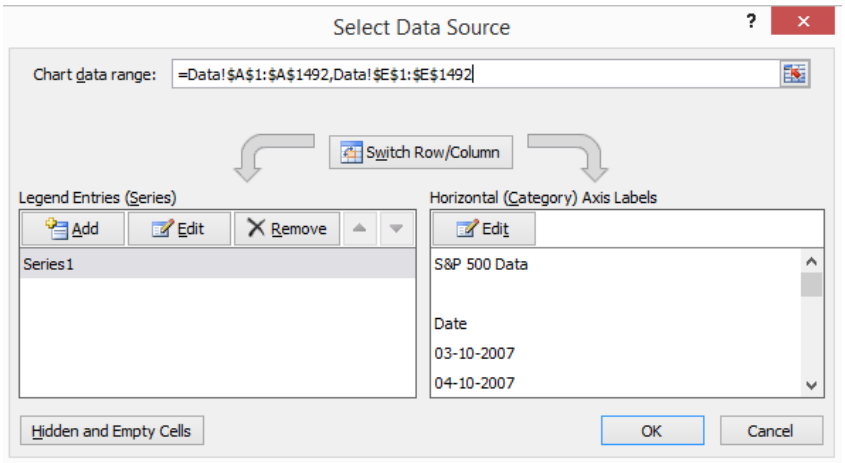
6.Create Line chart for the closing prices in the Excel file S&P 500.

To create a line chart for the closing prices in the Excel file S&P 500, follow these steps:

1. Open Excel: Launch Microsoft Excel on your computer.

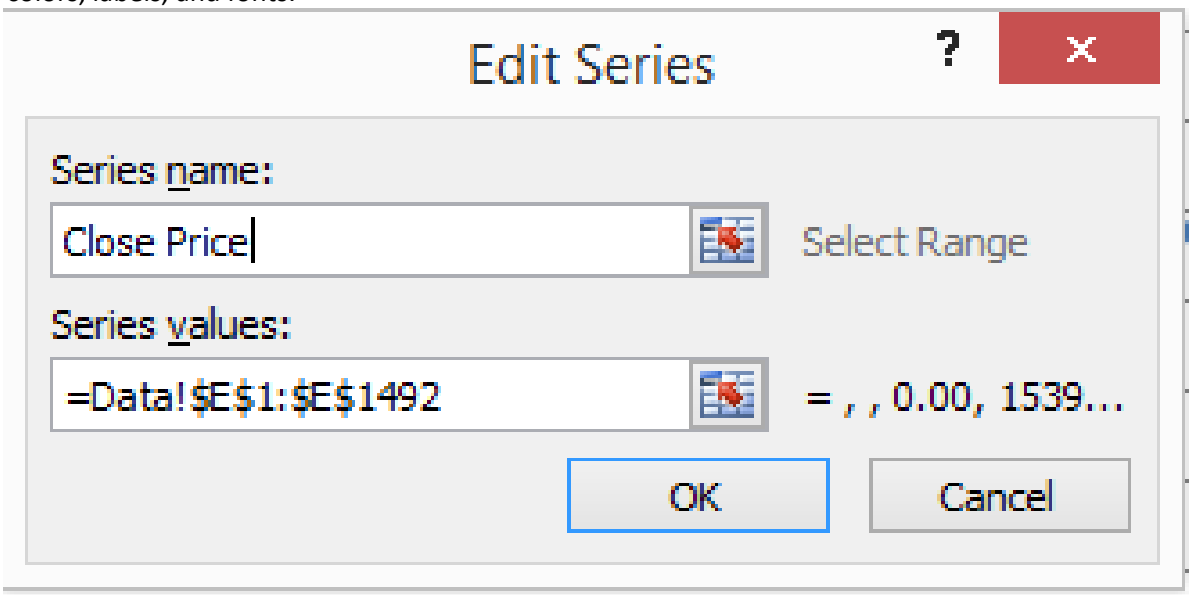
2. Import Data: Open the Excel file S&P 500 that contains the data you provided.

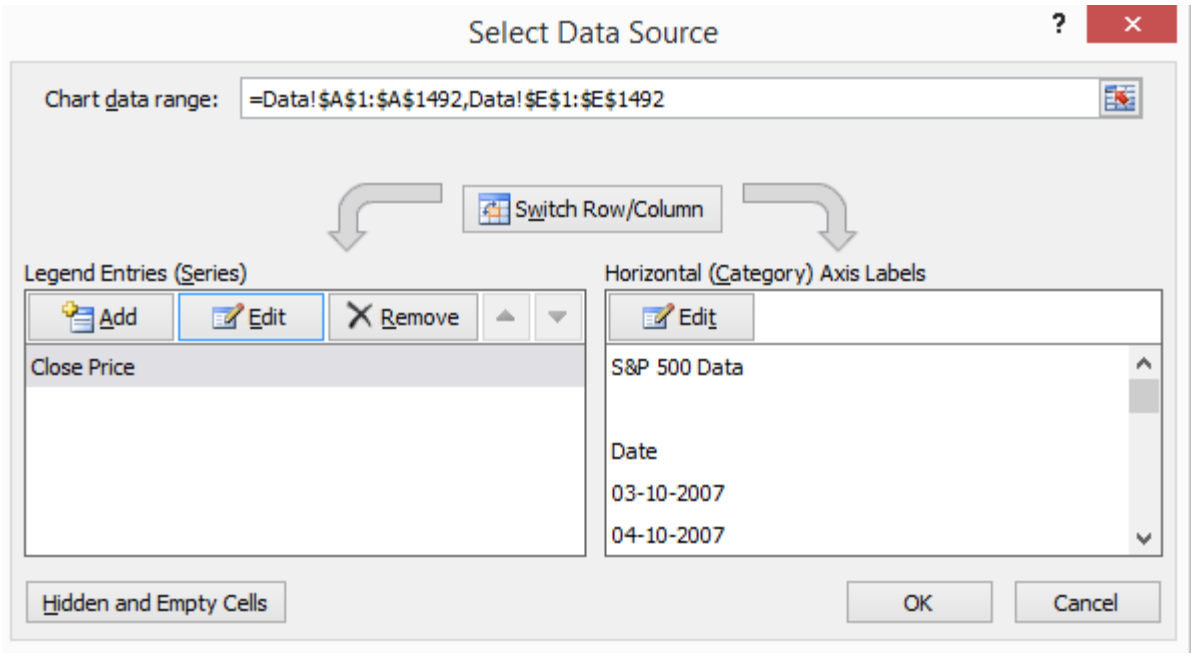
3. Select Data: Click and drag to select the "Date" column and the "Close" column. Make sure to include the column headers.



4. Insert Line Chart: Go to the "Insert" tab on the Excel ribbon and click on the "Line Chart" button. Choose a suitable line chart style (e.g., basic line chart).

5. Customize Chart: Once the line chart is inserted, you can customize it to better represent your data. Right-click on the chart and select "Format Chart Area" to change the chart's appearance, such as colors, labels, and fonts.





6. Axis Labels and Title: Ensure that the horizontal axis (X-axis) represents the dates and the vertical axis (Y-axis) represents the closing prices. You can adjust these settings by right-clicking on the axis labels and selecting "Format Axis". Also, add a title to your chart that describes the data being represented.