



EMPLOYEE DATA ANALYSIS

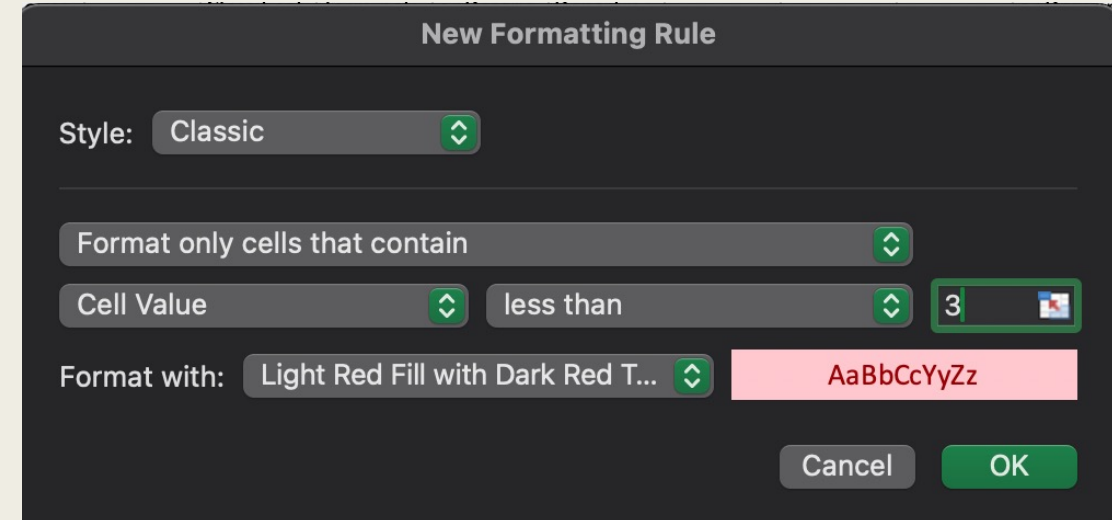
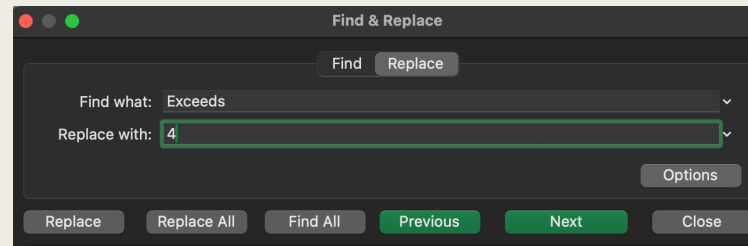
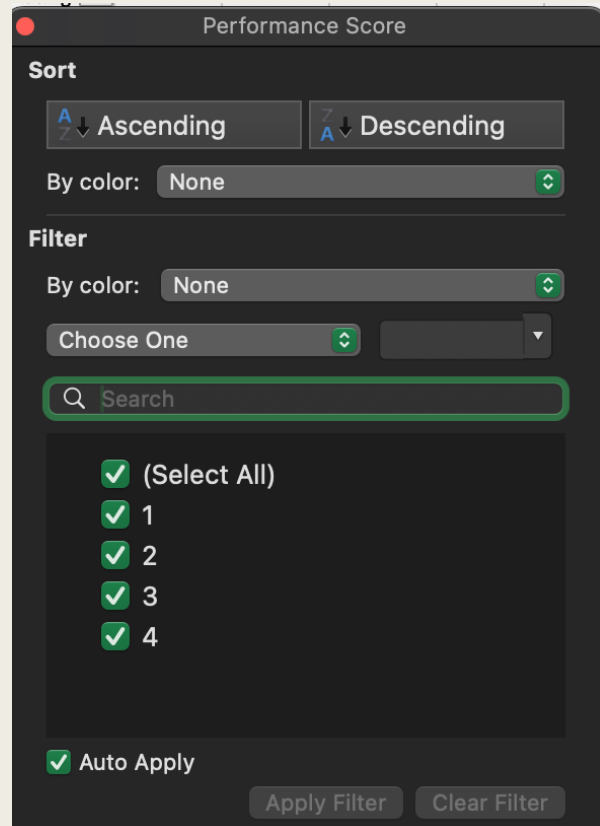
Aditya Dube



1. Can you create a pivot table to summarize the total number of employees in each department?

Department	Total number of Employees
Admin Offices	80
Executive Office	24
IT/IS	430
Production	2020
Sales	331
Software Engineering	115
Grand Total	3000

2. Apply conditional formatting to highlight employees with a "Performance Score" below 3 in red.

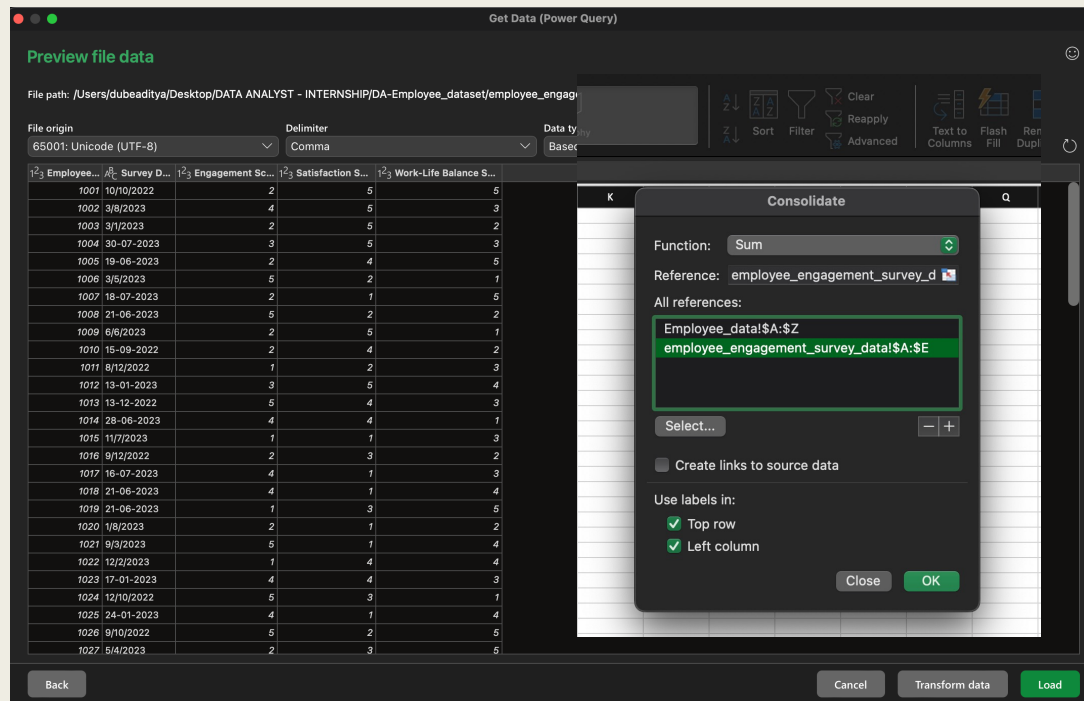


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	BusinessU	EmployeeS	EmployeeT		EmployeeC	Terminatio	Terminatio	nDescriptio	Departmen				JobFunctio	GenderCod	LocationCo		MaritalDes	Performan	Current						
1	ADEmail	nit	tatus	type	PayZone	nType	nType	n	tType	Division	DOB	State	n	e	de	RaceDesc	c	ce Score	Rating						
2	uriah.bridge	CCDR	Active	Contract	Zone C	Temporary	Unk		Production	Finance & A	7/10/69	MA	Accounting	Female	34904	White	Widowed	3	4						
3	paula.small	EW	Active	Contract	Zone A	Part-Time	Unk		Production	Aerial	30-08-1965	MA	Labor	Male	6593	Hispanic	Widowed	3	3						
4	edward.buc	PL	Active	Full-Time	Zone B	Part-Time	Unk		Sales	General - Sg	6/10/91	MA	Assistant	Male	2330	Hispanic	Widowed	3	4						
5	michael.rior	CCDR	Active	Contract	Zone A	Full-Time	Unk		Sales	Finance & A	4/4/98	ND	Clerk	Male	58782	Other	Single	3	2						
6	jasmine.onc	TNS	Active	Contract	Zone A	Temporary	Unk		Sales	General - Cc	29-08-1969	FL	Laborer	Female	33174	Other	Married	3	3						
7	maruk.fraz	BPC	Active	Contract	Zone B	Full-Time	Unk		Sales	Field Operat	3/4/49	CT	Driver	Male	6050	Black	Married	3	3						
8	latia.costa	WBL	Active	Full-Time	Zone B	Temporary	Involuntary	Me see pict	Sales	General - En	1/7/42	CA	Technician	Female	90007	Hispanic	Divorced	4	4						
9	sharlene.ter	CCDR	Active	Contract	Zone C	Full-Time	Involuntary	Blue comm	Sales	Engineers	7/3/57	OR	Engineer	Female	97756	White	Divorced	3	2						
10	jac.mckinzie	NEL	Active	Contract	Zone B	Part-Time	Unk		Sales	Executive	15-05-1974	TX	Executive As	Male	78789	Black	Widowed	4	3						
11	joseph.mar	BPC	Active	Part-Time	Zone B	Temporary	Resignation	Summer pe	Sales	Engineers	11/11/49	TX	Engineer	Male	78207	Asian	Widowed	3	5						
12	myriam.giv	SVG	Active	Contract	Zone B	Temporary	Unk		Sales	Field Operat	26-01-1964	IN	Technician	Female	46204	Other	Single	3	5						
13	dheepa.ngu	MSC	Active	Full-Time	Zone C	Temporary	Retirement	Alone once	Sales	General - Cc	6/4/48	GA	Technician	Female	30428	Asian	Married	3	3						
14	bartholome	EW	Active	Full-Time	Zone A	Temporary	Involuntary	Foot in thec	Sales	Splicing	24-11-1981	CO	Splicer	Male	80820	Other	Single	3	3						
15	xana.potts	CCDR	Active	Contract	Zone A	Full-Time	Resignation	Degree wish	Sales	Finance & A	6/11/51	KY	Controller	Female	40220	White	Divorced	3	3						
16	prater.jeren	BPC	Active	Part-Time	Zone A	Part-Time	Unk		Sales	General - Cc	21-11-1989	NV	Lineman	Male	89139	Asian	Widowed	4	4						
17	kaylah.moo	PYZ	Active	Full-Time	Zone A	Full-Time	Retirement	Fear particu	IT/IS	Field Operat	24-11-1952	MA	Laborer	Male	2810	Black	Single	4	2						
18	kristen.tate	WBL	Active	Full-Time	Zone C	Part-Time	Voluntary	Wall body w	IT/IS	Project Mar	8/4/94	KY	Coordinator	Male	2621	Asian	Widowed	3	3						
19	bobby.rodg	NEL	Active	Contract	Zone A	Part-Time	Voluntary	Visit foot ne	Sales	Engineers	15-11-1983	KY	Director	Male	44553	Other	Widowed	3	3						
20	reid.park	PL	Active	Contract	Zone C	Full-Time	Unk		Sales	Project Mar	7/12/85	KY	Supervisor	Female	5360	Other	Married	4	4						
21	hector.dalt	BPC	Active	Part-Time	Zone A	Part-Time	Unk		Sales	Field Operat	1/5/96	TX	Driller	Female	16325	White	Divorced	4	2						
22	mariela.schi	CCDR	Future Start	Part-Time	Zone C	Part-Time	Involuntary	Unit pass of	Sales	General - Cc	17-02-1964	TX	Technician	Female	43481	Asian	Widowed	3	3						
23	angela.moli	SVG	Future Start	Full-Time	Zone A	Temporary	Retirement	List class mil	Sales	Engineers	12/5/58	TX	Specialist	Male	50705	Asian	Widowed	3	3						
24	gerald.prest	EW	Future Start	Contract	Zone B	Temporary	Involuntary	Price third p	Sales	General - En	18-09-1992	CO	Technician	Male	5168	Black	Single	3	5						
25	reilly.moyer	MSC	Active	Contract	Zone C	Temporary	Resignation	Cause milita	Sales	Field Operat	11/8/94	CO	Operator	Male	11765	Other	Single	4	2						
26	carlee.frenc	TNS	Active	Contract	Zone C	Full-Time	Voluntary	Station ano	Sales	General - Cc	15-01-1968	CO	Technician	Male	71071	Other	Divorced	4	3						
27	jaydon.blac	PYZ	Active	Part-Time	Zone A	Part-Time	Unk		Sales	General - Cc	7/1/47	IN	Foreman	Male	12122	Black	Divorced	3	2						
28	bridger.cart	WBL	Active	Contract	Zone C	Part-Time	Unk		Sales	Fields	7/4/82	MA	Engineer	Male	87065	White	Widowed	3	4						
29	leon.beard	PYZ	Active	Full-Time	Zone C	Full-Time	Unk		IT/IS	General - Cc	29-01-1970	KY	Foreman	Male	10415	Hispanic	Married	2	4						
30	charity.mira	WBL	Active	Full-Time	Zone C	Temporary	Resignation	Pm local tak	Sales	Project Mar	18-01-1999	KY	Manager	Male	3763	Other	Widowed	4	4						
31	axel.howe	NEL	Active	Full-Time	Zone A	Temporary	Unk		Sales	Field Operat	25-09-1946	KY	Technician	Female	79623	Black	Divorced	3	3						
32	milton.wall	PL	Active	Full-Time	Zone B	Temporary	Unk		Sales	Engineers	23-08-1947	KY	Technician	Female	69189	White	Divorced	2	3						
33	cory.robins	BPC	Future Start	Contract	Zone A	Full-Time	Voluntary	Several you	Sales	Field Operat	12/8/96	TX	Laborer	Female	5194	Hispanic	Single	2	3						
34	saniya.yu	CCDR	Future Start	Part-Time	Zone A	Full-Time	Retirement	Science end	Sales	General - Cc	9/2/44	TX	Splicer	Male	8779	Black	Widowed	4	2						
35	alisa.james	SVG	Active	Full-Time	Zone A	Full-Time	Unk		Sales	Aerial	10/2/44	TX	Lineman	Male	74682	Asian	Married	3	3						
36	lincoln.com	EW	Future Start	Full-Time	Zone C	Part-Time	Resignation	Base scene	Sales	General - Cc	29-12-1997	CO	Foreman	Male	78046	Hispanic	Married	2	1						
37	aliana.nolan	MSC	Active	Contract	Zone A	Full-Time	Involuntary	Yourself bor	Sales	Field Operat	9/8/42	CO	Coordinator	Male	27270	Hispanic	Divorced	2	3						
38	kayden.dod	TNS	Active	Part-Time	Zone A	Temporary	Retirement	Paper can st	Sales	Field Operat	21-06-1951	IN	Tower Hand	Male	12703	Hispanic	Single	3	1						
39	james.duke	PYZ	Active	Contract	Zone B	Full-Time	Involuntary	Stuff differe	Sales	Shop (Fleet)	17-06-1998	MA	Mechanic	Male	66835	Black	Widowed	2	5						
40	william.stue	WBL	Active	Full-Time	Zone B	Full-Time	Unk		Sales	General - Cc	7/1/63	MA	Clerk	Male	66150	Asian	Divorced	2	3						

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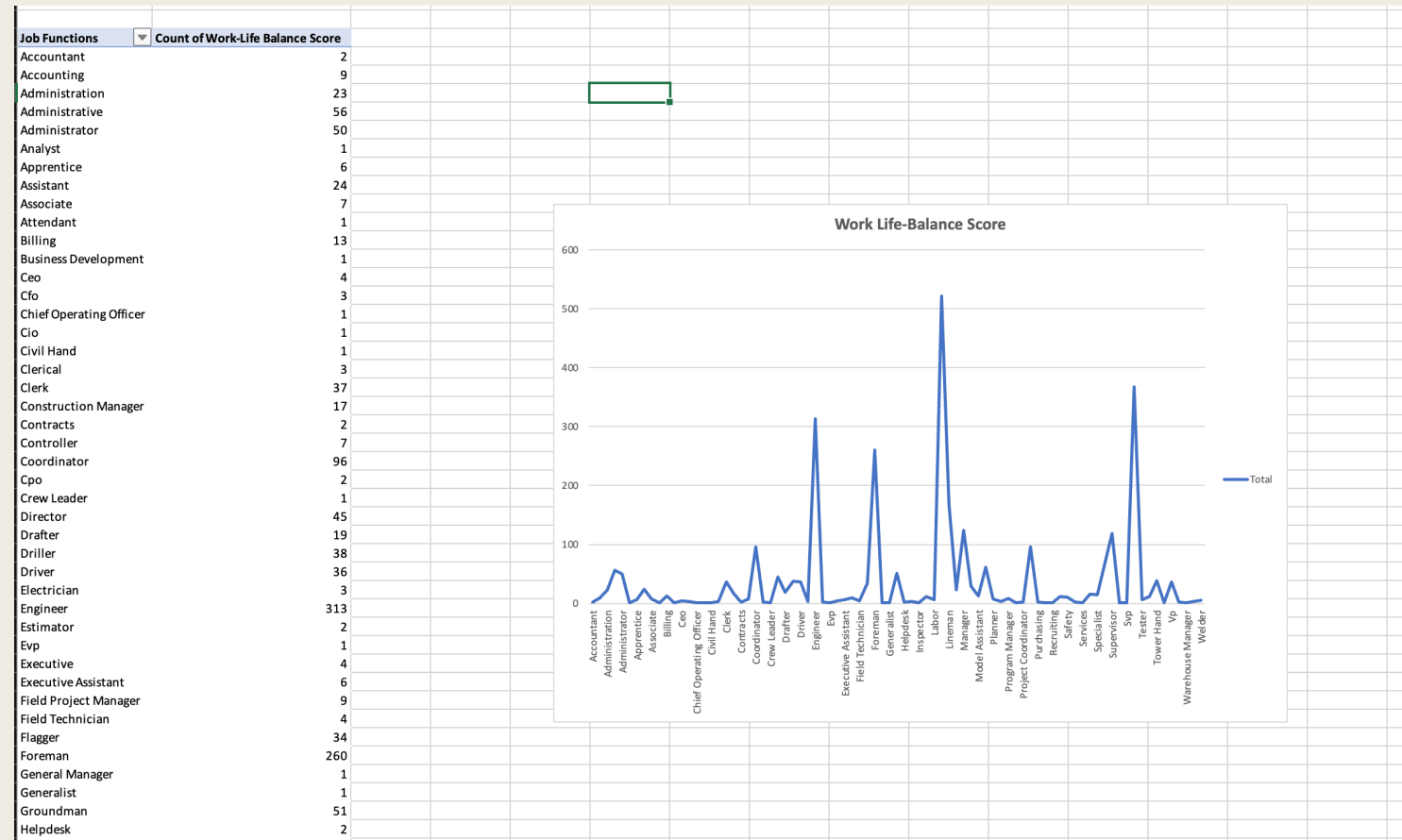
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3. Calculate the average "Satisfaction Score" for male and female employees separately using a pivot table.



Gender	Average of Satisfaction Score
Female	3.005945303
Male	3.042488619
Grand Total	3.022


4. Create a chart to visualize the distribution of "Work-Life Balance Score" for different job functions.



5. Filter the data to display only terminated employees and find out the most common "Termination Type."

Termination Type	Count of Employee ID
Involuntary	388
Resignation	380
Retirement	377
Unk	1467
Voluntary	388
Grand Total	3000
According to this "Unk" is most common termination type.	

6. Calculate the average "Engagement Score" for each department using a pivot table.


Department Type 	Average of Engagement Score
Admin Offices	2.925
Executive Office	3.375
IT/IS	3.025581395
Production	2.906435644
Sales	2.990936556
Software Engineering	2.973913043
Grand Total	2.939666667

7. Use VLOOKUP to find the supervisor's email address for a specific employee.

```
=VLOOKUP(@A:A,A1:Z3001,8,FALSE)
```

	AA	AB
e		
▼	Using VLOOKUP	
4	uriah.bridges@bilearner.com	
3	paula.small@bilearner.com	
4	edward.buck@bilearner.com	
2	michael.riordan@bilearner.com	
3	jasmine.onque@bilearner.com	
3	maruk.fraval@bilearner.com	
4	latia.costa@bilearner.com	
2	sharlene.terry@bilearner.com	
3	jac.mckinzie@bilearner.com	
5	joseph.martins@bilearner.com	
5	myriam.givens@bilearner.com	
3	dheepa.nguyen@bilearner.com	
3	bartholemew.khemmich@bilearner.com	
3	xana.potts@bilearner.com	
4	prater.jeremy@bilearner.com	
2	kaylah.moon@bilearner.com	
3	kristen.tate@bilearner.com	
3	bobby.rodgers@bilearner.com	
4	reid.park@bilearner.com	
2	hector.dalton@bilearner.com	
3	mariela.schultz@bilearner.com	
3	angela.molina@bilearner.com	
5	gerald.preston@bilearner.com	
2	reilly.moyer@bilearner.com	
3	carlee.french@bilearner.com	
2	jaydon.blackburn@bilearner.com	
4	bridger.carter@bilearner.com	

8. Can you identify the department with the highest average "Employee Rating?"

Department Type 	Average of Current Employee Rating
Admin Offices	3.025
Executive Office	2.791666667
IT/IS	2.969767442
Production	2.982178218
Sales	2.909365559
Software Engineering	2.904347826
Grand Total	2.969

9. Create a scatter plot to explore the relationship between "Training Duration (Days)" and "Training Cost."



10. Build a pivot table that shows the count of employees by "RaceDesc" and "GenderCode."

Gender	Count of Employee ID
Female	1682
Asian	346
Black	346
Hispanic	325
Other	318
White	347
Male	1318
Asian	283
Black	272
Hispanic	247
Other	264
White	252
Grand Total	3000

11. Use INDEX and MATCH functions to find the "Training Program Name" for an employee with a specific ID.

```
=INDEX(C:C,MATCH(J2,A:A,0))
```

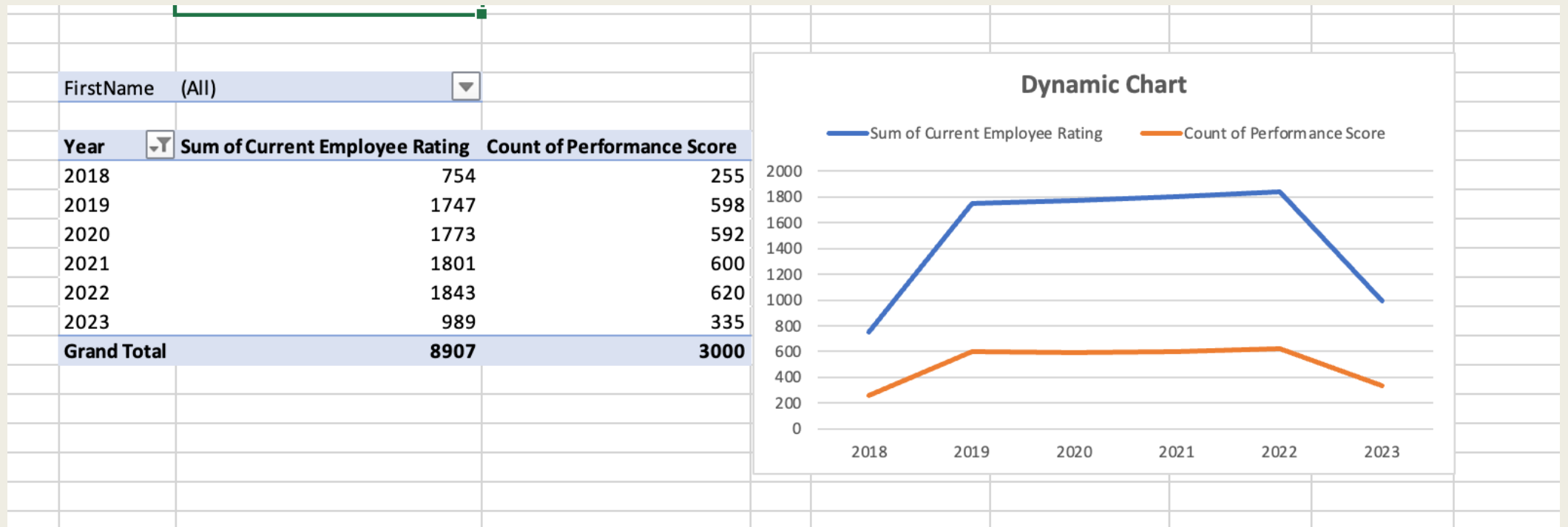
J	K	L	M	N	
Employee Search ID ▼					
1001			Customer Service		
1002			Leadership Development		
0					
0					
0					

12. Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

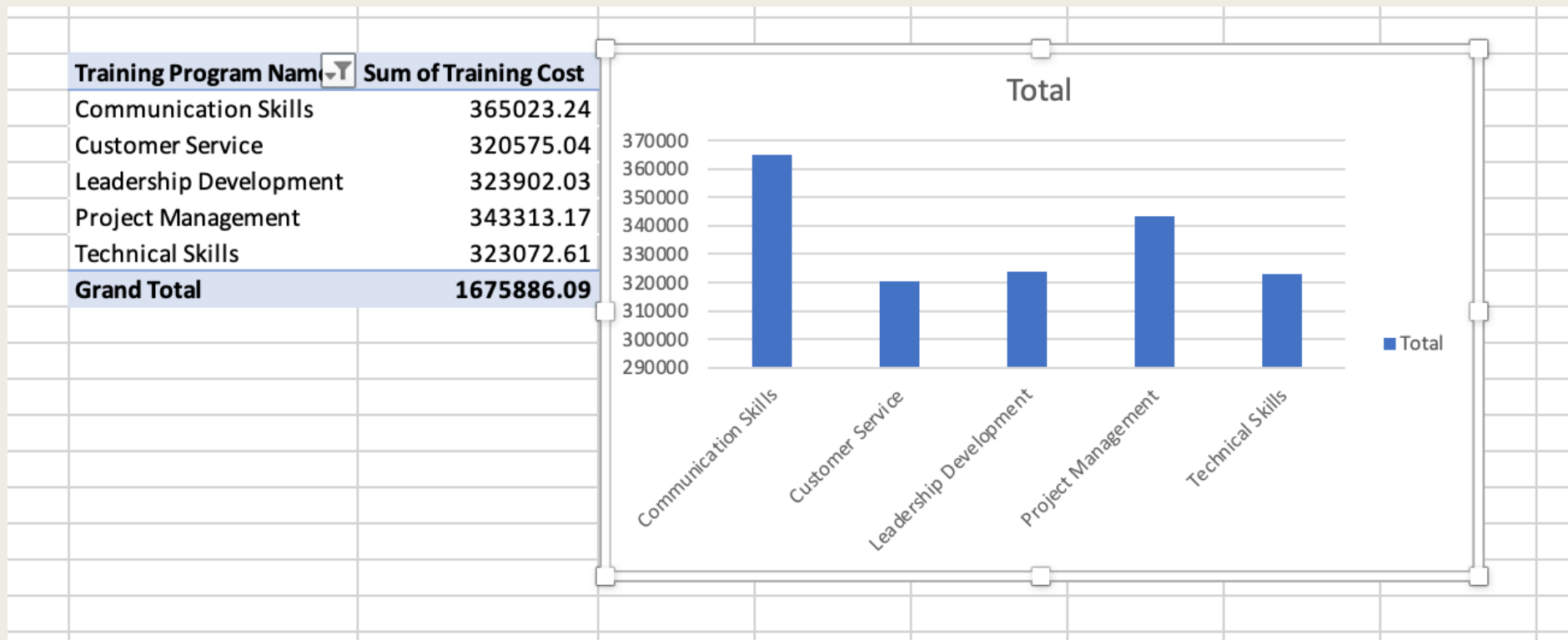
Job Functions		Count of Performance Score
⊗ BPC		303
⊗ CCDR		300
⊗ EW		302
⊗ MSC		296
⊗ NEL		304
⊗ PL		301
⊗ PYZ		299
⊗ SVG		304
⊗ TNS		297
⊗ WBL		294
Accountant		2
Administration		3
Administrative		7
Administrator		6
Apprentice		1
Billing		2
Civil Hand		1
Clerical		1
Clerk		4
Construction Manager		2
Controller		1
Coordinator		15

13. Design a dynamic chart that allows users to select and visualize the performance of any employee over time.

=YEAR(@D:D)



14. Calculate the total training cost for each "Training Program Name" and display it in a bar chart.



15. Apply advanced conditional formatting to highlight the top 10% and bottom 10% of employees based on "Current Employee Rating."

New Formatting Rule

Style: Classic

Format only top or bottom ranked values


Top 10 Percent

Format with: Green Fill with Dark Green Text

Cancel OK

Z	
Current Employee Rating	
4	
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16. Use a calculated field in a pivot table to determine the average "Engagement Score" per year.

Year	 Average of Engagement Score
2018	2.898039216
2019	3.065217391
2020	2.939189189
2021	2.888333333
2022	2.943548387
2023	2.832835821
Grand Total	2.939666667

18. Create a histogram to understand the distribution of "ExitDate" for terminated employees.

Row Labels	Count of ExitDate
2018	4
2019	62
2020	133
2021	278
2022	460
2023	596
Involuntary	170
Resignation	138
Retirement	134
Voluntary	154
Grand Total	1533

19. Utilize the SUMPRODUCT function to calculate the total training cost for employees in a specific location.

	Locations		Sum of Training Cost
	Aaronborough		841.22
	Aaronburgh		633.96
	Aaronstad		939.02
	Abbotton		609.01
	Grand Total		3023.21

20. Develop a dashboard that provides an overview of key HR metrics, including headcount, performance, and training costs, using charts and pivot tables.

