

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

Row Labels	Sum of Employee ID
Admin Offices	115863
Executive Office	82789
IT/IS	1219763
Production	4960723
Sales	956182
Software Engineering	166180
Grand Total	7501500

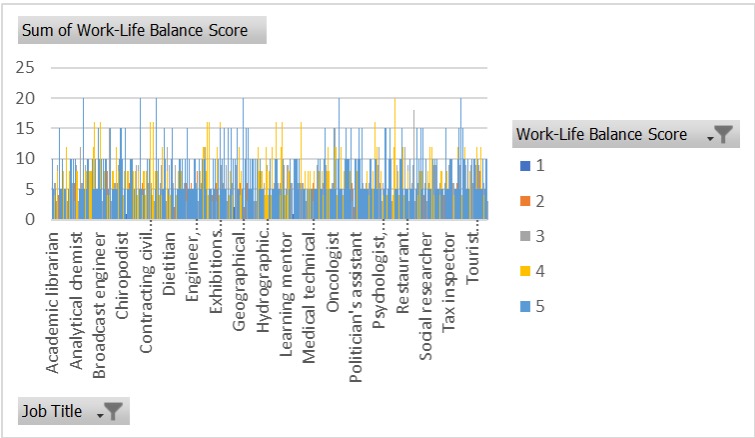
2. Apply conditional formatting to highlight employees with a "Performance Score" below 3 in red.

	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	Employ	Termini	Termini	Depart	Division	DOB	State	JobFunct	Gender	Locatio	RaceDe	Marital	Perform	Current
2	Temporari	Unk		Production	Finance &	10-07-1969	MA	Accounting	Female	34904	White	Widowed	Fully Meet	4
3	Part-Time	Unk		Production	Aerial	30-08-1965	MA	Labor	Male	6593	Hispanic	Widowed	Fully Meet	3
4	Part-Time	Unk		Sales	General -	10-06-1991	MA	Assistant	Male	2330	Hispanic	Widowed	Fully Meet	4
5	Full-Time	Unk		Sales	Finance &	04-04-1998	ND	Clerk	Male	58782	Other	Single	Fully Meet	4
6	Temporari	Unk		Sales	General -	29-08-1969	FL	Laborer	Female	33174	Other	Married	Fully Meet	3
7	Full-Time	Unk		Sales	Field Oper	04-03-1949	CT	Driver	Male	6050	Black	Married	Fully Meet	3
8	Temporari	Involuntari	Me see pic	Sales	General -	07-01-1942	CA	Technician	Female	90007	Hispanic	Divorced	Exceeds	4
9	Full-Time	Involuntari	Blue comm	Sales	Engineers	03-07-1957	OR	Engineer	Female	97756	White	Divorced	Fully Meet	4
10	Part-Time	Unk		Sales	Executive	15-05-1974	TX	Executive	Male	78789	Black	Widowed	Exceeds	3
11	Temporari	Resignatio	Summer pi	Sales	Engineers	11-11-1949	TX	Engineer	Male	78207	Asian	Widowed	Fully Meet	5
12	Temporari	Unk		Sales	Field Oper	26-01-1964	IN	Technician	Female	46204	Other	Single	Fully Meet	5
13	Temporari	Retiremen	Alone onci	Sales	General -	04-06-1948	GA	Technician	Female	30428	Asian	Married	Fully Meet	3
14	Temporari	Involuntari	Foot in the	Sales	Splicing	24-11-1981	CO	Splicer	Male	80820	Other	Single	Fully Meet	3
15	Full-Time	Resignatio	Degree wit	Sales	Finance &	11-06-1951	KY	Controller	Female	40220	White	Divorced	Fully Meet	3
16	Part-Time	Unk		Sales	General -	21-11-1989	NV	Liheman	Male	89139	Asian	Widowed	Exceeds	4
17	Full-Time	Retiremen	Fear partic	IT/IS	Field Oper	24-11-1952	MA	Laborer	Male	2810	Black	Single	Exceeds	4
18	Part-Time	Voluntary	Wall body	IT/IS	Project M	04-08-1994	KY	Coordinator	Male	2621	Asian	Widowed	Fully Meet	3
19	Part-Time	Voluntary	Visit foot	Sales	Engineers	15-11-1983	KY	Director	Male	44553	Other	Widowed	Fully Meet	3
20	Full-Time	Unk		Sales	Project M	12-07-1985	KY	Supervisor	Female	5360	Other	Married	Exceeds	4
21	Part-Time	Unk		Sales	Field Oper	05-01-1996	TX	Driller	Female	16325	White	Divorced	Exceeds	4
22	Part-Time	Involuntari	Unit pass	Sales	General -	17-02-1964	TX	Technician	Female	43481	Asian	Widowed	Fully Meet	3
23	Temporari	Retiremen	List class	n Sales	Engineers	05-12-1958	TX	Specialist	Male	50705	Asian	Widowed	Fully Meet	3
24	Temporari	Involuntari	Price third	Sales	General -	18-09-1992	CO	Technician	Male	5168	Black	Single	Fully Meet	5
25	Temporari	Resignatio	Cause mili	Sales	Field Oper	08-11-1994	CO	Operator	Male	11765	Other	Single	Exceeds	4
26	Full-Time	Voluntary	Station an	Sales	General -	15-01-1968	CO	Technician	Male	71071	Other	Divorced	Exceeds	3
27	Part-Time	Unk		Sales	General -	01-07-1947	IN	Foreman	Male	12122	Black	Divorced	Fully Meet	4
28	Part-Time	Unk		Sales	Fielders	04-07-1982	MA	Engineer	Male	87065	White	Widowed	Fully Meet	4
29	Full-Time	Unk		IT/IS	General -	29-01-1970	KY	Foreman	Male	10415	Hispanic	Married	Needs Imc	4

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

Row Labels	Average of Satisfaction Score
Female	3.019648397
Male	3.075728155
Other	2.969092722
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."

Row Labels	Count of TerminationType
Involuntary	388
Resignation	380
Retirement	377
Unk	1467
Voluntary	388
Grand Total	3000

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

Row Labels	Average of Engagement Score
Admin Offices	3.00
Executive Office	2.88
IT/IS	2.93
Production	2.95
Sales	2.88
Software Engineering	2.92

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

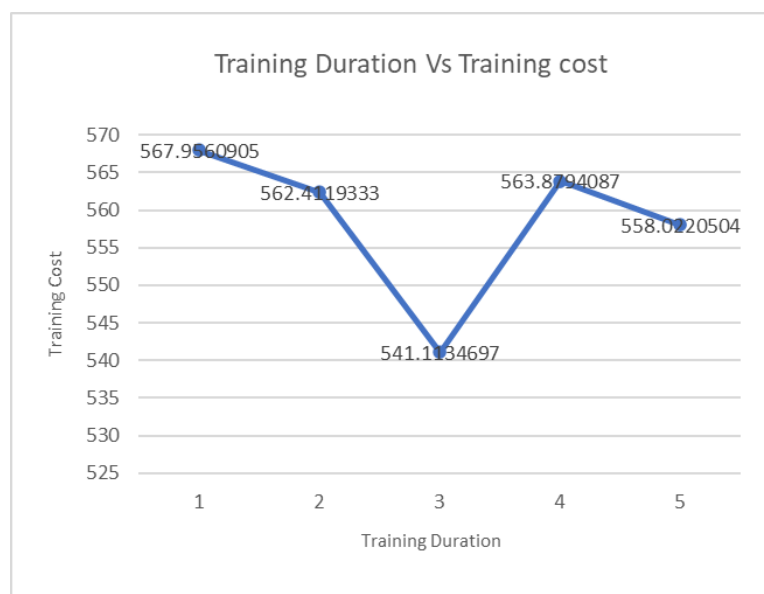
=VLOOKUP(employee_data!A2, Table13,8,)

D	E	F	G	H	I	J	K
Date	ExitDate	Title	Supervisor	Table13,8,)	Business	Employment	Employment
Sep-19		Production	Peter One	uriah.bridg	CCDR	Active	Contract

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

Row Labels	Average of Current Employee Rating
Admin Offices	3.03
Executive Office	2.79
IT/IS	2.97
Production	2.98
Sales	2.91
Software Engineering	2.90

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."

Row Labels	Count of Employee ID
Asian	629
Female	346
Male	283
Black	618
Female	346
Male	272
Hispanic	572
Female	325
Male	247
Other	582
Female	318
Male	264
White	599
Female	347
Male	252
Grand Total	3000

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

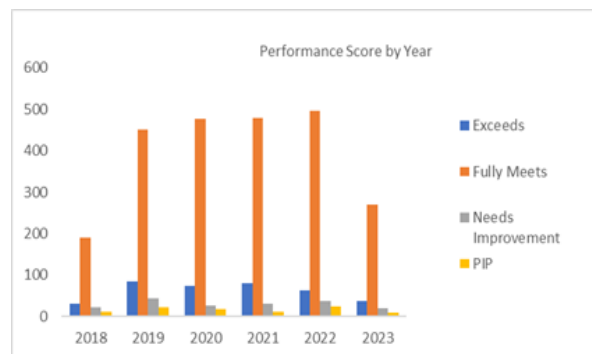
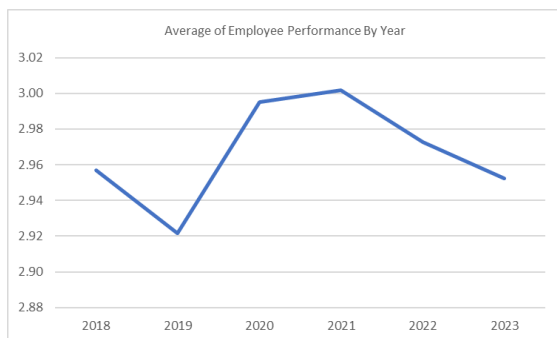
=INDEX(training[Training Program Name], MATCH([@[Employee ID]], training[Employee ID], 0))

Employee ID	FirstName	LastName	StartDate	ExitDate	Title	Training Program
3427	Uriah	Bridges	20-sep-19		Production Technician I	Leadership Development
3428	Paula	Small	11-feb-23		Production Technician I	Customer Service
3429	Edward	Buck	10-dic-18		Area Sales Manager	Leadership Development
3430	Michael	Riordan	21-jun-21		Area Sales Manager	Project Management
3431	Jasmine	Onque	29-jun-19		Area Sales Manager	Technical Skills
3432	Maruk	Fraval	17-ene-20		Area Sales Manager	Project Management
3433	Latia	Costa	06-abr-22	03-jul-23	Area Sales Manager	Customer Service
3434	Sharlene	Terry	06-nov-20	29-ene-23	Area Sales Manager	Leadership Development
3435	Jac	McKinzie	18-ago-18		Area Sales Manager	Customer Service
3436	Joseph	Martins	21-ene-22	29-jun-23	Area Sales Manager	Leadership Development
3437	Myriam	Givens	04-ago-23		Area Sales Manager	Technical Skills
3438	Dheepa	Nguyen	10-ago-18	04-nov-19	Area Sales Manager	Technical Skills

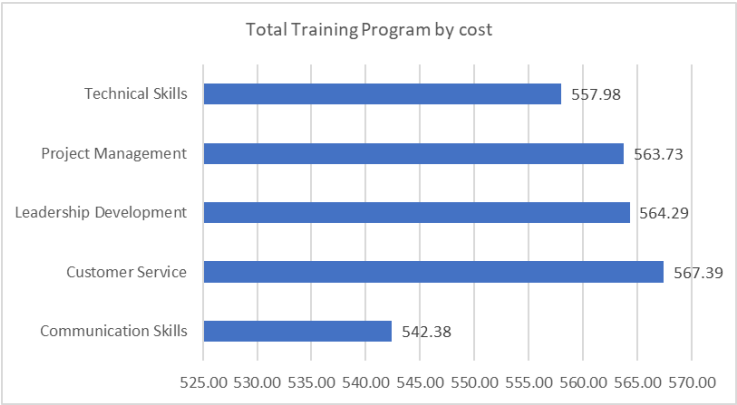
12. Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

Business_Unit / Job_Func	Average of Performance Score
BPC	3.00
Administration	3.00
Administrative	3.29
Administrator	3.44
Assistant	3.00
Associate	2.00
Billing	4.00
Ceo	2.00
Cio	3.00
Clerk	3.00
Construction Manager	2.00
Controller	4.00
Coordinator	3.00
Director	2.50
Driller	2.33
Driver	2.75
Electrician	1.00
Engineer	3.12
Executive Assistant	3.00
Field Project Manager	3.00
Flagger	2.00
Foreman	3.17
Groundman	2.75
Helper	3.00
Inspector	3.00
Labor	3.00

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



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."

Q	R	S	T	U	V	W	X	Y	Z
Division	DOB	State	JobFunc	Gender	Locatio	RaceDe	Marital	Perform	Current
Finance &	10-07-1969	MA	Accounting	Female	34904	White	Widowed	Fully Meet	4
Aerial	30-08-1965	MA	Labor	Male	6593	Hispanic	Widowed	Fully Meet	3
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General - C	04-06-1948	GA	Technician	Female	30428	Asian	Married	Fully Meet	3

16. Use a calculated field in a pivot table to determine the average "Engagement Score" per year

Row Labels	Average of Engagement Score
2022	2.92
2023	2.95
Grand Total	2.94

17. Can you build a macro that automates the process of updating and refreshing all pivot tables in the workbook?

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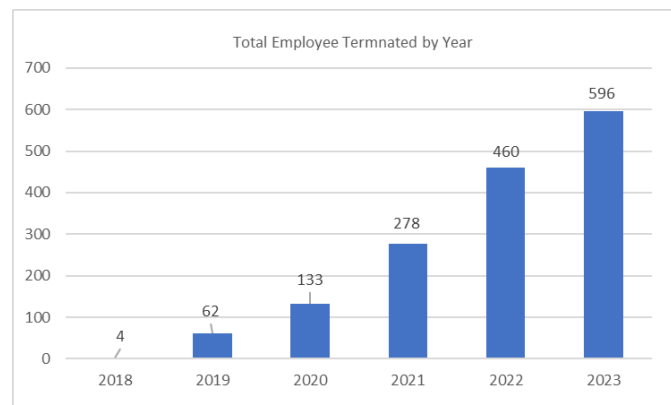
Sub RefreshAllPivotTables()
    Dim ws As Worksheet
    Dim pt As PivotTable

    ' Loop through each worksheet in the workbook
    For Each ws In ThisWorkbook.Worksheets
        ' Loop through each pivot table in the worksheet
        For Each pt In ws.PivotTables
            ' Refresh the pivot table
            pt.RefreshTable
        Next pt
    Next ws

    ' Display a message when all pivot tables are refreshed
    MsgBox "All pivot tables have been refreshed.", vbInformation
End Sub

```

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



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

Row Labels	Sum of Training Cost
East Michael	₹ 2,707.39
Jenniferfurt	₹ 2,764.90
Lake Michael	₹ 2,557.70
New David	₹ 2,415.75
New Eric	₹ 2,549.00
North Rebecca	₹ 2,677.17
Port John	₹ 2,481.91
Smithborough	₹ 2,696.67
Smithchester	₹ 3,105.41
South Jennifer	₹ 3,349.21

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

