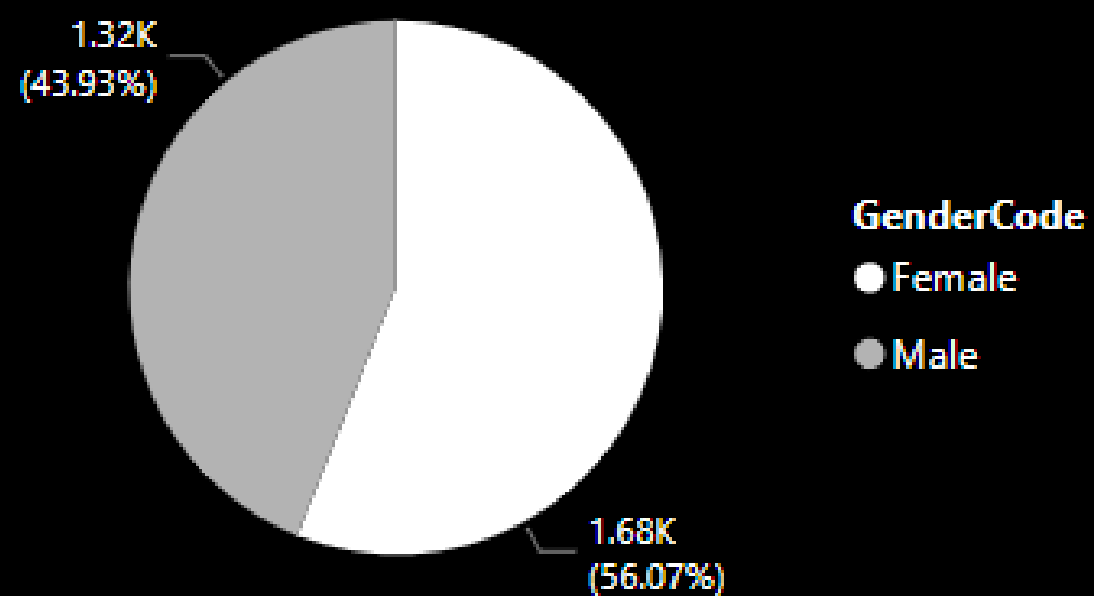




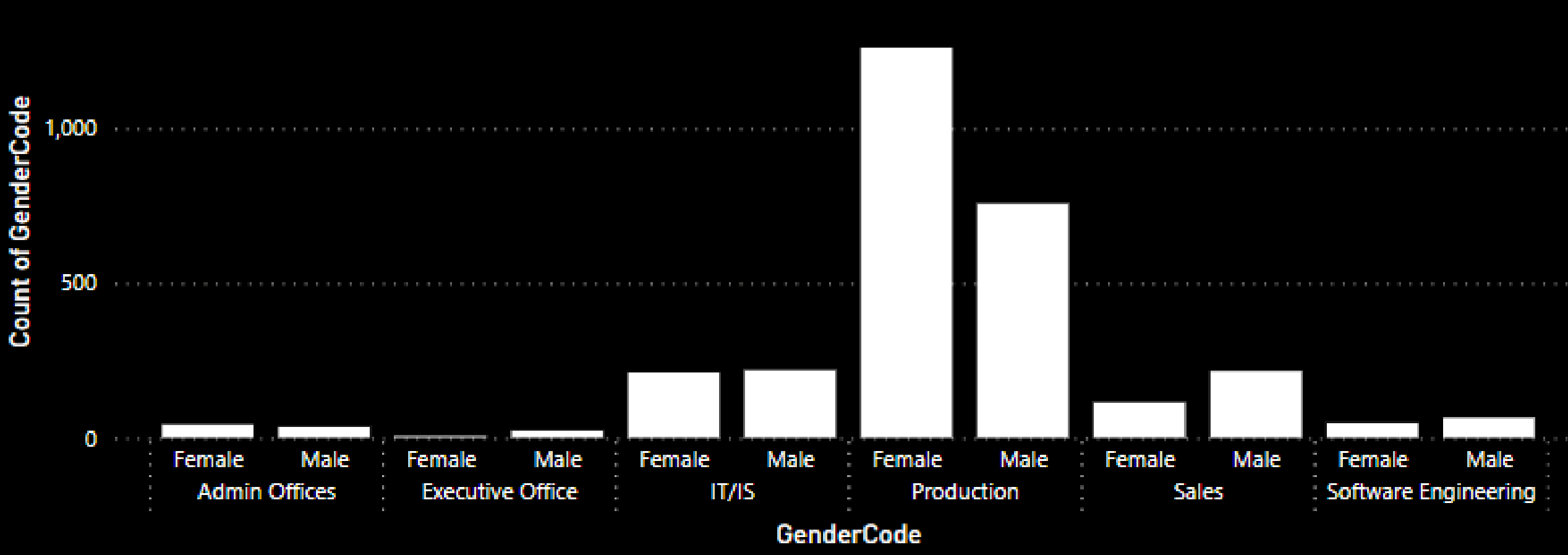
EMPLOYEE DATA ANALYSIS

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

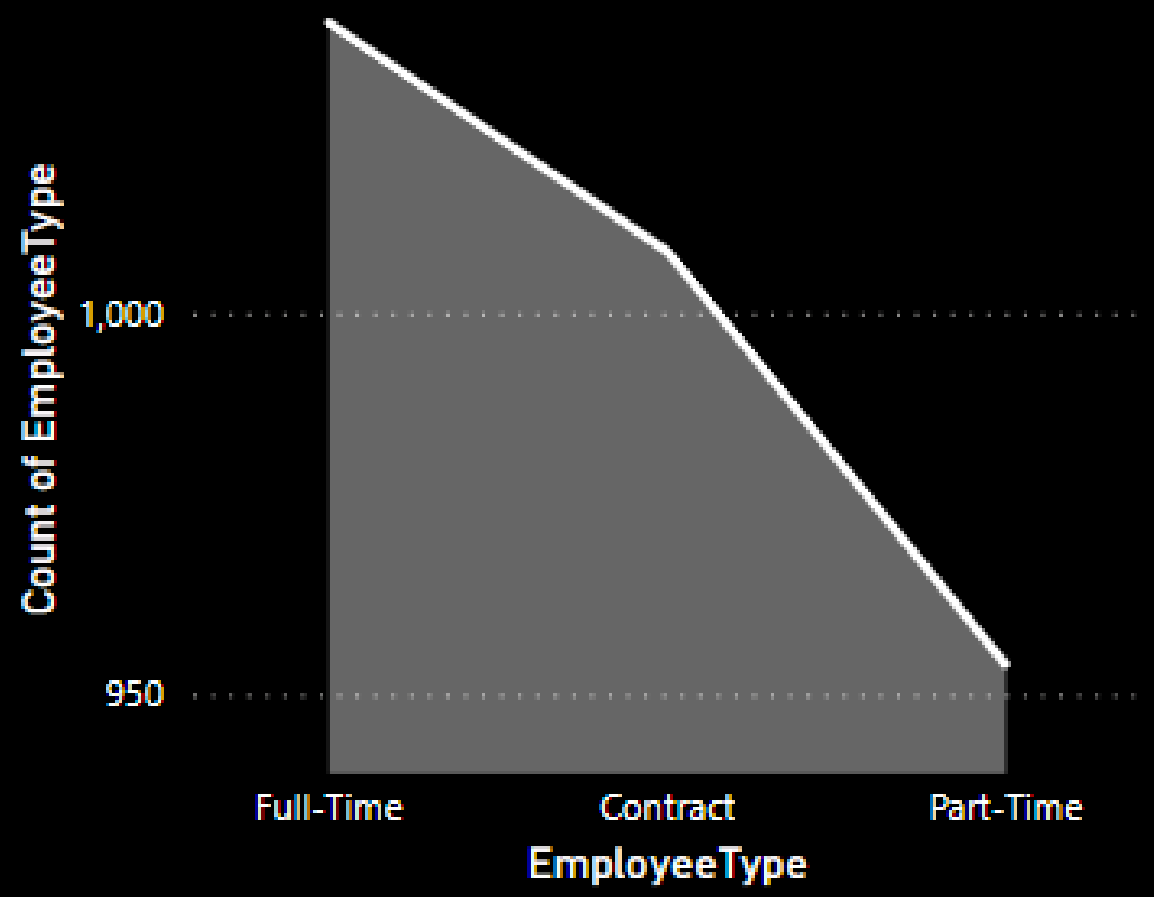
3000
Count of Employee ID




Count of GenderCode by DepartmentType and GenderCode



Count of EmployeeType by EmployeeType



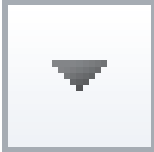
Can you create a pivot table to summarize the total number of employees in each department?

Row Labels 	Average of Work-Life Balance Score
Production	2.961881188
IT/IS	3.006993007
Software Engineering	3.008695652
Sales	3.060422961
Admin Offices	3.1875
Executive Office	3.291666667
Grand Total	2.989663221

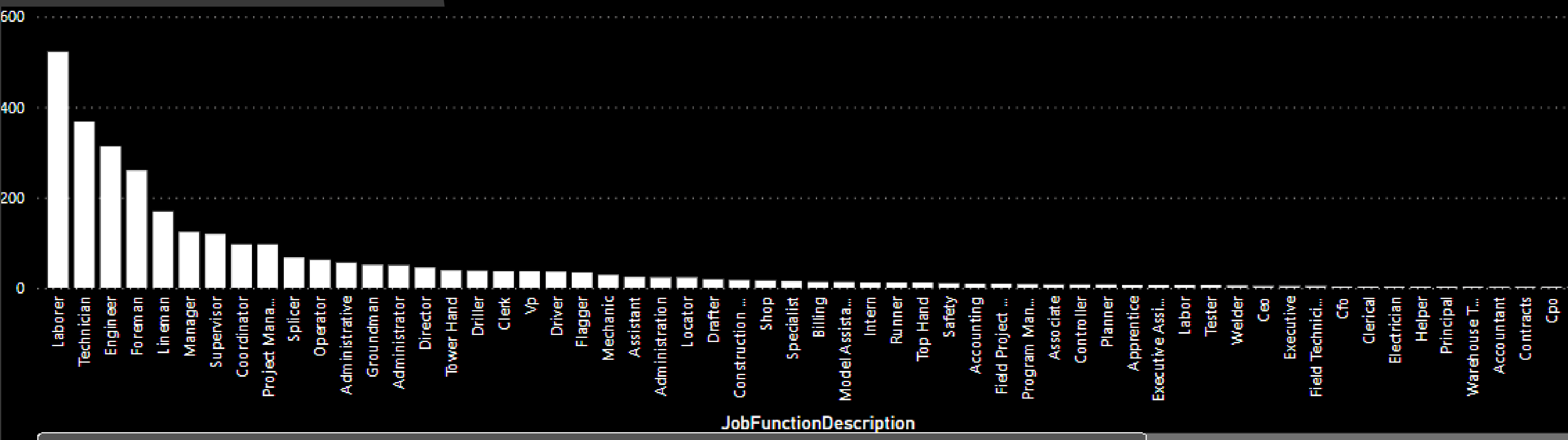
Apply conditional formatting to highlight employees with a "Performance Score" below 3 in red.

	DOB	State	JobFunction	GenderCode	LocationCode	RaceDesc	MaritalDesc	Performance Score	Current Employee Rating	Survey Date	Engagement Score	Satisfaction
1098	25-02-1964	MA	Lineman	Female	29605	Black	Widowed	PIP	2	30-08-2022	2	
1099	19-05-1950	MA	Laborer	Female	51886	Other	Divorced	PIP	5	01-02-2023	2	
1100	29-03-1969	MA	Vp	Female	66261	Hispanic	Widowed	PIP	4	26-03-2023	1	
1101	24-11-1944	MA	Coordinator	Female	26880	Other	Divorced	Exceeds	4	09-01-2023	1	
1102	13-12-1964	MA	Engineer	Female	35098	Hispanic	Married	PIP	5	10-01-2023	4	
1103	23-01-1966	MA	Driller	Female	90728	Asian	Single	Exceeds	2	16-07-2023	1	
1104	25-12-1986	MA	Construction	Female	49149	Asian	Widowed	Exceeds	5	16-02-2023	1	
1105	19-08-1949	MA	Laborer	Female	73771	Hispanic	Widowed	Exceeds	2	10-06-2023	1	
1106	27-01-1960	MA	Supervisor	Female	92541	Hispanic	Single	Needs Improvement	4	24-07-2023	3	
1107	14-11-1962	MA	Foreman	Male	47601	White	Widowed	Exceeds	2	28-10-2022	5	
1108	27-12-1943	MA	Project Manager	Female	68361	Hispanic	Widowed	Exceeds	1	25-11-2022	4	
1109	19-09-1978	MA	Driller	Female	71922	White	Widowed	Needs Improvement	2	10-04-2023	1	
1110	22-11-1988	MA	Tower Hand	Female	51689	Other	Divorced	Exceeds	5	04-04-2023	3	
1111	13-05-1948	MA	Vp	Female	97553	Black	Single	Exceeds	4	13-11-2022	1	
1112	17-05-1957	MA	Lineman	Female	92067	Asian	Single	Needs Improvement	5	26-04-2023	2	
1113	24-09-1943	MA	Technician	Female	65114	Other	Widowed	Exceeds	4	01-02-2023	4	
1114	20-10-1944	MA	Clerk	Female	9677	White	Widowed	Exceeds	2	31-08-2022	5	
1115	24-04-1992	MA	Project Manager	Female	38475	White	Single	Exceeds	4	08-02-2023	5	
1116	30-03-1978	MA	Engineer	Female	25166	Asian	Married	Exceeds	2	25-01-2023	5	
1117	09-03-1946	MA	Engineer	Female	81288	Black	Divorced	Needs Improvement	4	11-05-2023	1	


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

Row Labels 	Average of Satisfaction Score
Female	3.005945303
Male	3.043280182
Grand Total	3.02234078

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



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

Row Labels 	Count of TerminationType
Retirement	377
Resignation	380
Involuntary	388
Voluntary	388
Grand Total	1533

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

Row Labels	Average of Engagement Score
Executive Office	3.375
IT/IS	3.025641026
Sales	2.990936556
Software Engineering	2.973913043
Admin Offices	2.925
Production	2.906435644
Grand Total	2.939646549

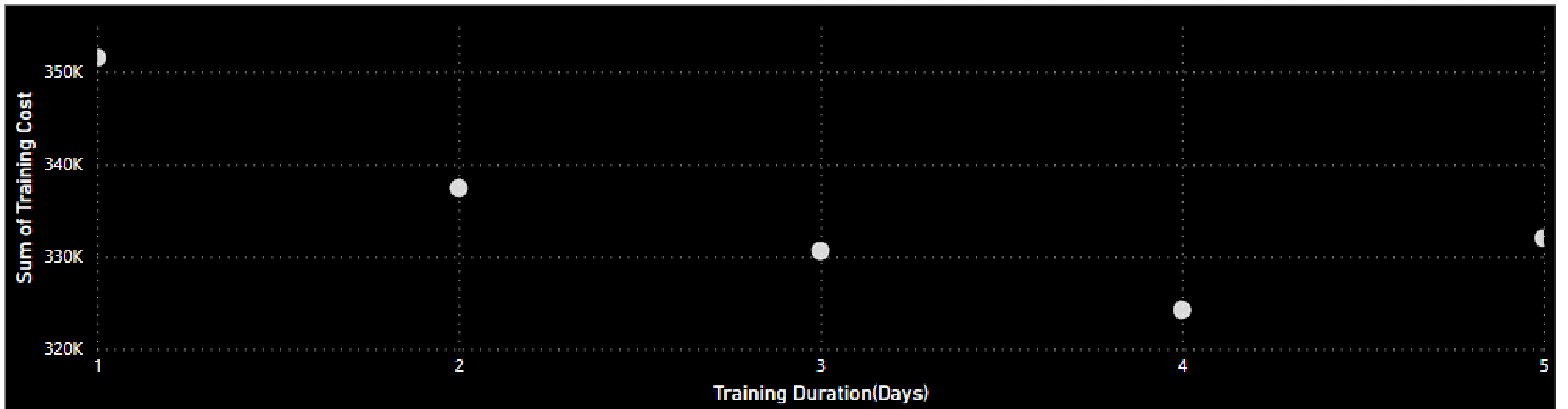
Use VLOOKUP to find the supervisor's email address for a specific employee

VLOOKUP		
Employee Id	Supervisor name	supervisor email
2345	Cindy Schneider	Cindy Schneider@bilearner.com

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

Row Labels	Average of Current Employee Rating
Admin Offices	3.025
Production	2.982178218
IT/IS	2.969767442
Sales	2.909365559
Software Engin	2.904347826
Executive Offic	2.791666667
Grand Total	2.969


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



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

Conditional Formatting					
Styles					
ard					
Font					
Alignment					
Number					
Conditional Formatting					
Tab					
Styles					
=INDEX(Table1[Training Program Name],MATCH(B41,Table1[Employee ID],0))					
A	B	C	D	E	F
Employee id		Training program name			
1009		Customer Service			

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

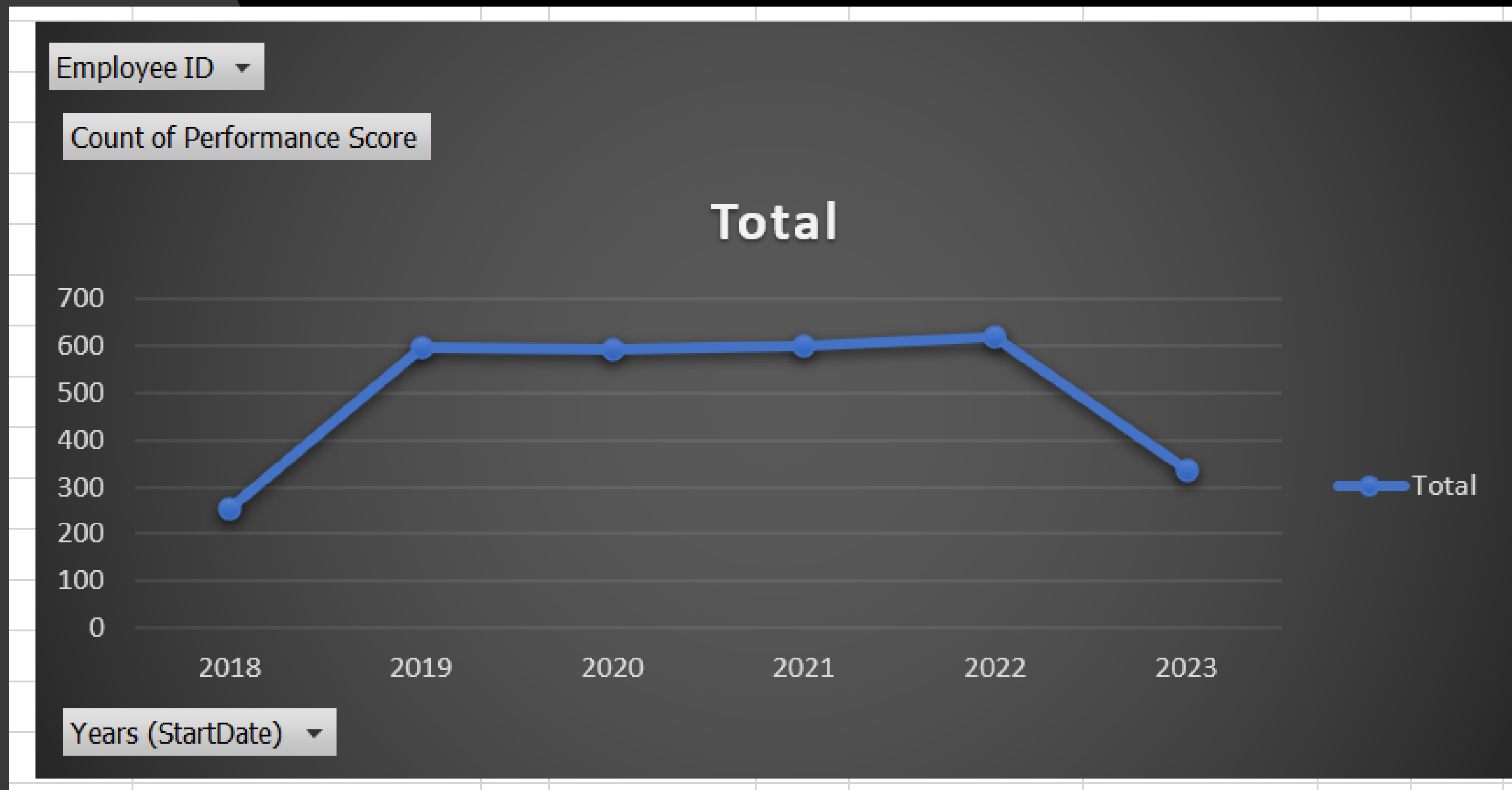
Row Labels 	Female	Male	Grand Total
White	347	252	599
Other	318	264	582
Hispanic	325	247	572
Black	346	272	618
Asian	346	283	629
Grand Total	1682	1318	3000

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

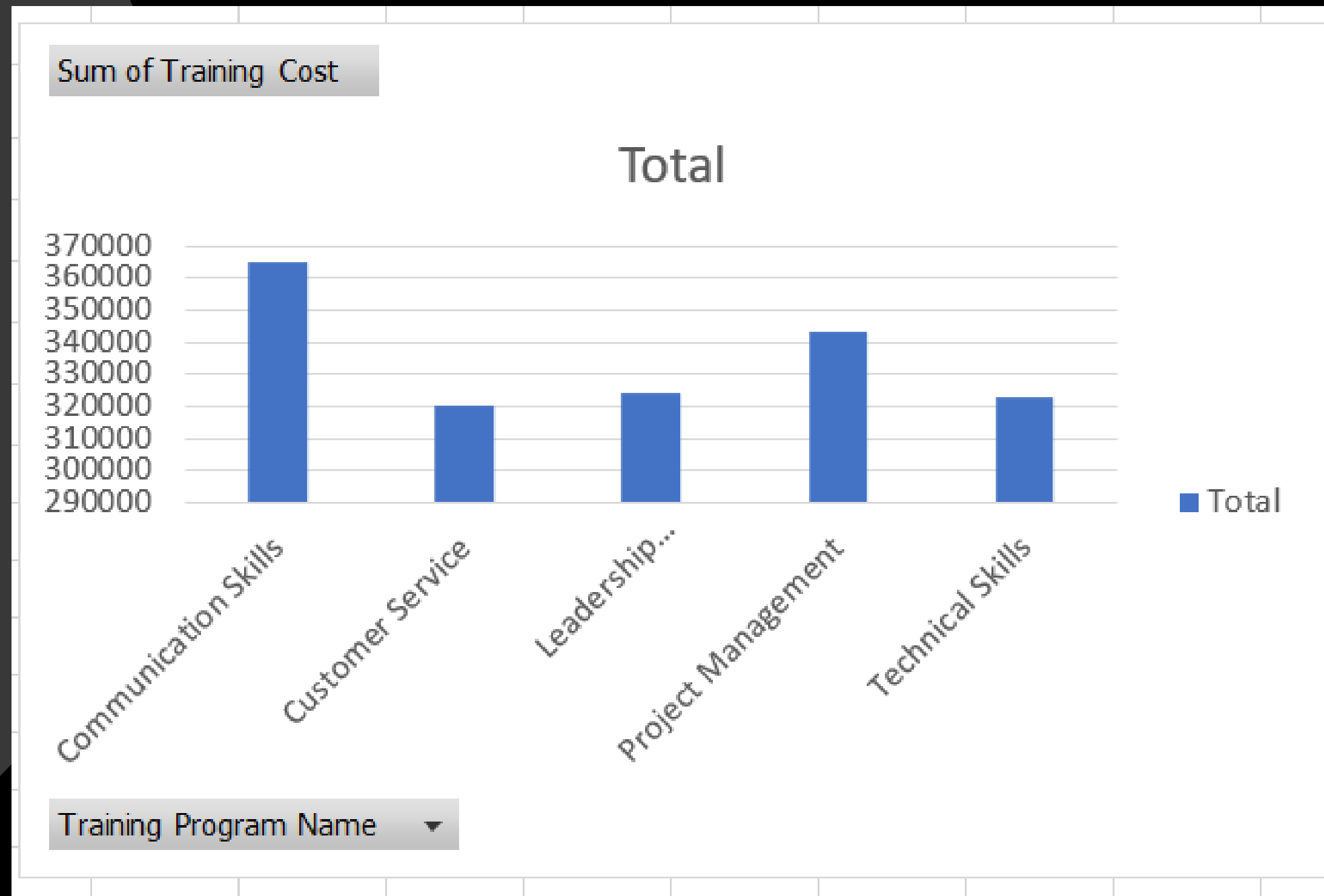
Count of Performance Score	Column Labels	Exceeds	Fully Meets	Needs Improvement	PIP	Grand Total
Accountant			2			2
Accounting			7	1	1	9
Administration		3	17	2	1	23
Administrative		5	43	5	3	56
Administrator		6	39	4	1	50
Analyst		1				1
Apprentice		2	4			6
Assistant		2	20		2	24
Associate		1	6			7
Attendant			1			1
Billing		1	12			13
Business Development			1			1
Ceo			4			4
Cfo		1	2			3
Chief Operating Officer			1			1
Cio			1			1
Civil Hand			1			1
Clerical			3			3
Clerk		1	33	2	1	37
Construction Manager		3	13	1		17
Contracts			2			2
Controller			7			7
Coordinator		14	78	4		96
Cpo			2			2
Crew Leader			1			1
Director		8	33	4		45
Drafter		1	16	1	1	19
Driller		5	32	1		38
Driver		2	28	5	1	36
Electrician			3			3
Engineer		33	255	14	11	313
Estimator		1	1			2
Evp		1				1
Executive			3	1		4
Executive Assistant		2	3	1		6

* Field Project Manager	2	6	1	3	
* Field Technician	1	3			4
* Flagger	5	24	3	2	34
* Foreman	32	207	12	9	260
* General Manager		1			1
* Generalist		1			1
* Groundman	3	42	4	2	51
* Helpdesk	1			1	2
* Helper		3			3
* Inspector		1			1
* Intern	1	10	1		12
* Labor	3	3			6
* Laborer	62	413	29	18	522
* Lineman	21	130	11	7	169
* Locator	6	16	1		23
* Manager	18	99	5	2	124
* Mechanic	1	23	2	3	29
* Model Assistant	3	10			13
* Operator	6	51	5		62
* Planner		6		1	7
* Principal		3			3
* Program Manager	2	6			8
* Project Controls		1			1
* Project Coordinator		2			2
* Project Manager	16	72	4	4	96
* Purchasing		2			2
* Recruiter		1			1
* Recruiting		1			1
* Runner		11	1		12
* Safety	1	8	1		10
* Safety Manager		2			2
* Services		1			1
* Shop	3	10	3		16
* Specialist	1	13		1	15
* Splicer	9	53	3	2	67
* Supervisor	20	84	12	3	119
* Support		1			1
* Svp		1			1
* Technician	49	281	27	11	368
* Tester		6			6
* Top Hand		10	1	1	12
* Tower Hand	3	30	3	3	39
* Traffic		1			1
* Yp	6	29	1	1	37
* Warehouse		2			2
* Warehouse Manager		1			1
* Warehouse Technic	1	2			3
* Welder		4	1		5
Grand Total	369	2361	177	93	3000

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



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



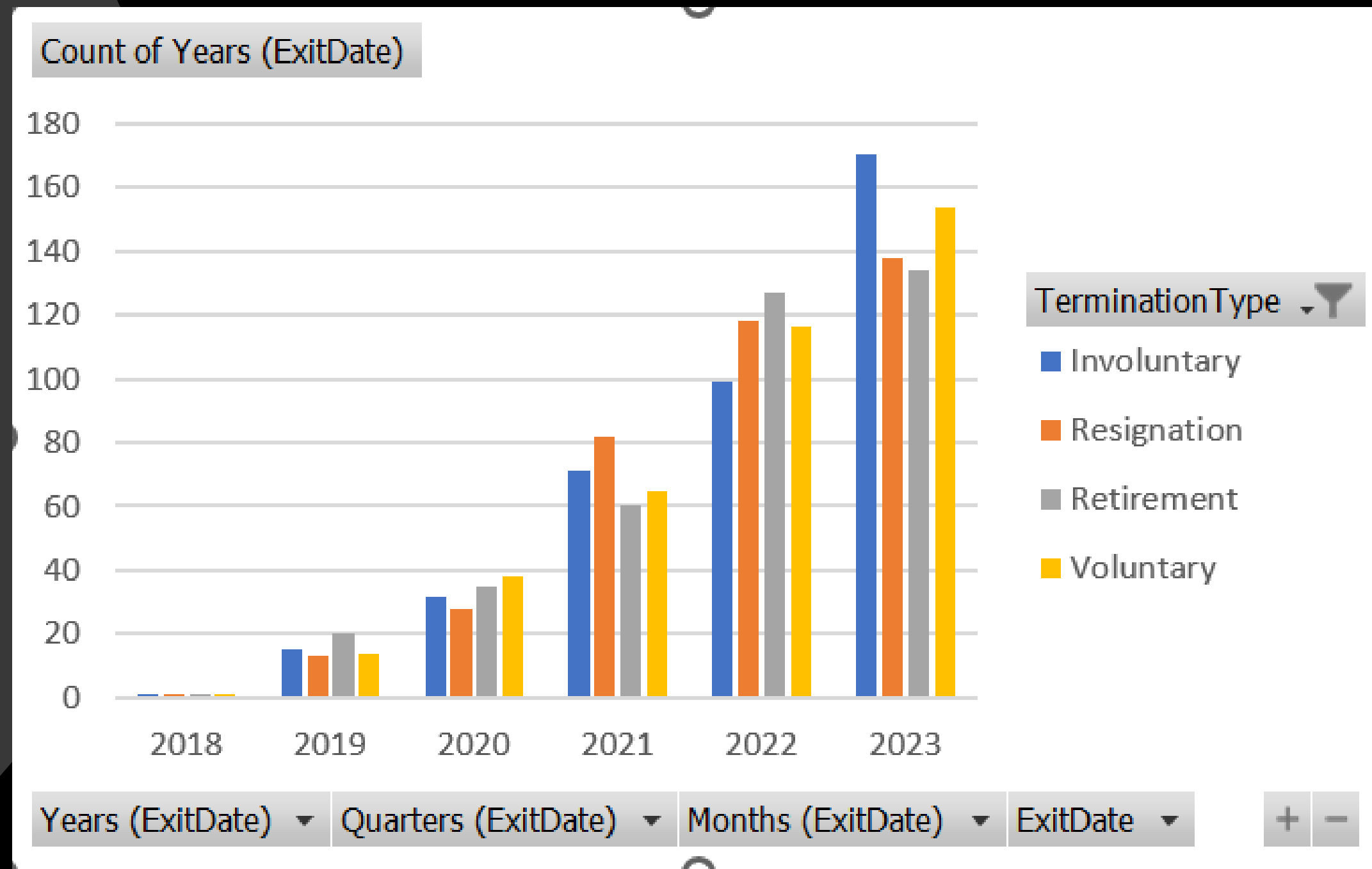
Apply advanced conditional formatting to highlight the top 10% and bottom 10% of employees based on "Current Employee Rating."

	Division	DOB	State	JobFunction	GenderCode	LocationCode	RaceDesc	MaritalDesc	Performance Score	Current Employee Rating
653	General - Sga	03-08-1954	MA	Manager	Female	15228	Other	Widowed	Fully Meets	4
654	Wireline Constr	21-04-1944	MA	Operator	Male	25594	White	Widowed	Fully Meets	1
655	General - Con	07-09-1955	MA	Operator	Male	97492	Black	Divorced	Fully Meets	4
656	General - Con	11-08-1964	AZ	Manager	Male	48881	Black	Divorced	Fully Meets	2
657	Aerial	02-10-1957	AZ	Splicer	Male	71509	Hispanic	Single	Fully Meets	4
658	Isp	06-06-1995	AZ	Manager	Male	27097	White	Widowed	Fully Meets	2
659	Engineers	28-03-1960	AZ	Technician	Male	74016	Black	Married	Fully Meets	2
660	General - Con	13-07-1990	AL	Administrative	Male	71519	Black	Single	Fully Meets	2
661	Shop (Fleet)	27-10-1959	TN	Mechanic	Male	33045	Asian	Divorced	Fully Meets	4
662	Engineers	08-11-1970	TN	Administrative	Male	65089	Black	Married	Fully Meets	2
663	General - Con	09-12-1945	ID	Foreman	Male	94177	Asian	Single	Fully Meets	2
664	Splicing	21-07-1971	ID	Technician	Male	51278	Hispanic	Divorced	Fully Meets	5
665	Project Manage	25-06-1961	ID	Manager	Male	14665	Hispanic	Divorced	Fully Meets	1
666	Splicing	14-07-1991	NY	Splicer	Male	33859	Hispanic	Married	Fully Meets	4
667	Yard (Material H	19-01-1946	WA	Runner	Female	91544	Other	Single	Fully Meets	4
668	Billable Consult	10-08-1965	WA	Engineer	Female	9760	Other	Widowed	Fully Meets	2
669	General - Con	11-12-1978	MA	Technician	Female	94176	Asian	Married	Fully Meets	2
670	Field Operation	19-01-1952	MA	Foreman	Female	46445	Black	Single	Fully Meets	1

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

Row Labels	▼ Average of Engagement Score
2018	2.898039216
2019	3.065326633
2020	2.939189189
2021	2.888333333
2022	2.943548387
2023	2.832835821
Grand Total	2.939646549

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



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

- Go to developer tab
- Click on “visualbasic”
- Click on new module
- Type in macro code
- Close vba editor
- Execute macro by alt+f8 and select refresh pivot table

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

AP6

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=SUMPRODUCT((Table1[Location]=AP5)*Table1[Training Cost])

	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Training Type	Training Outcome	Location	Trainer	Training Duration(Day)	Training Cost			
2	Internal	Failed	Port Greg	Amanda Daniels	4	510.83			
3	Internal	Failed	Brandonview	Brittany Chambers	2	582.37			
4	Internal	Incomplete	Port Brianna	Mark Roberson	4	777.06			
5	Internal	Completed	Knightboroug	Richard Fisher	2	824.30		Location	Port Briannahaven
6	External	Passed	Bruceshire	Heather Shaffer	4	145.99		sumproduct	777.06
7	Internal	Failed	Erinfort	Michael Duke	2	838.07			
8	External	Failed	New Christop	Virginia Clayton DVM	2	667.32			
9	External	Incomplete	Lowemouth	Erica Maxwell	2	758.18			
0	Internal	Incomplete	Johnland	Katelyn Hartman	2	101.21			