EMPLOYEE DATA ANALYSIS

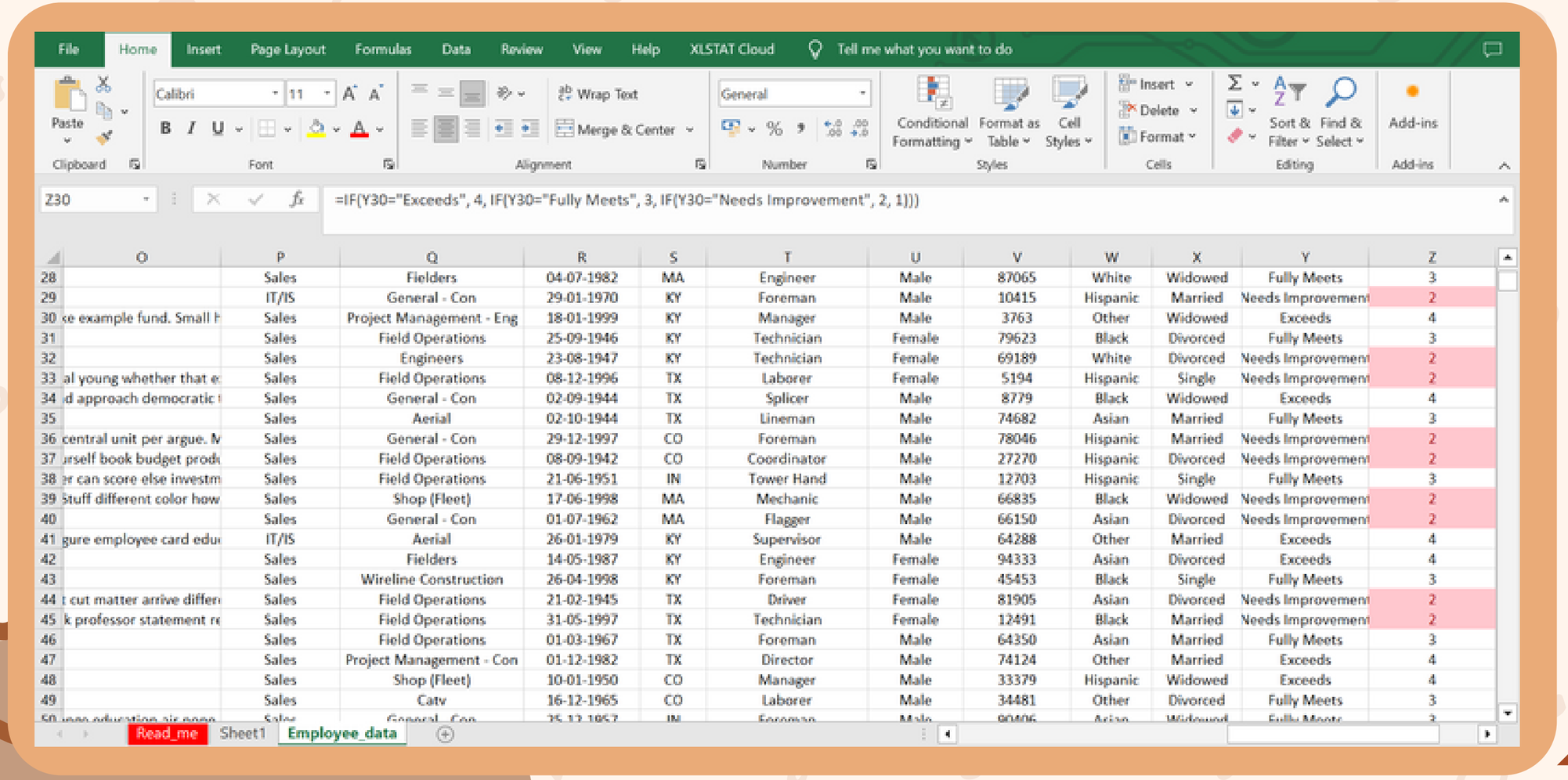
Presented by Shashank Singh

PSYLIQ

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

Row Labels	Count of Employee ID
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.

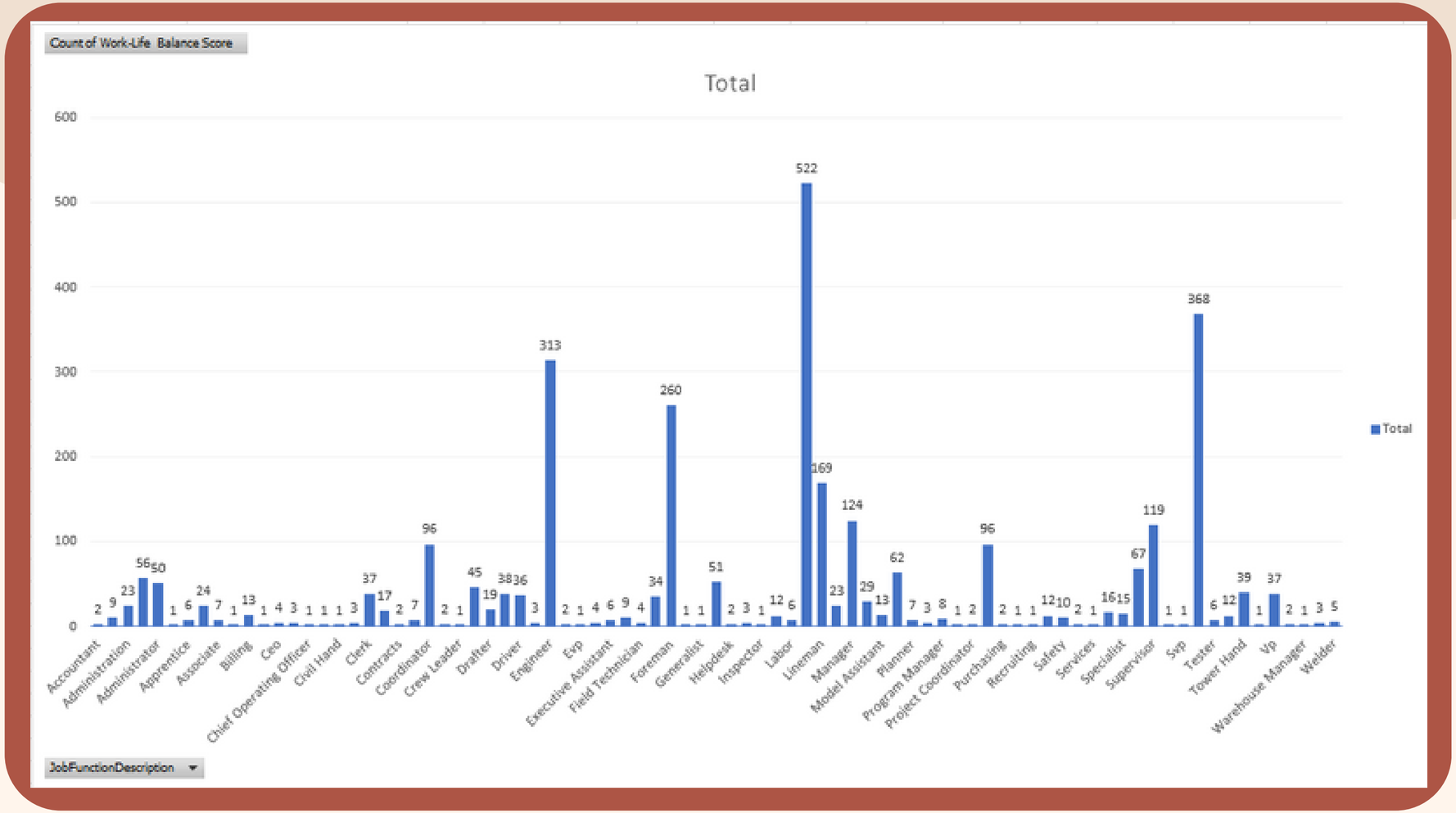


	O	P	Q	R	S	T	U	V	W	X	Y	Z
28		Sales	Fielders	04-07-1982	MA	Engineer	Male	87065	White	Widowed	Fully Meets	3
29		IT/IS	General - Con	29-01-1970	KY	Foreman	Male	10415	Hispanic	Married	Needs Improvement	2
30	ke example fund. Small h	Sales	Project Management - Eng	18-01-1999	KY	Manager	Male	3763	Other	Widowed	Exceeds	4
31		Sales	Field Operations	25-09-1946	KY	Technician	Female	79623	Black	Divorced	Fully Meets	3
32		Sales	Engineers	23-08-1947	KY	Technician	Female	69189	White	Divorced	Needs Improvement	2
33	al young whether that e	Sales	Field Operations	08-12-1996	TX	Laborer	Female	5194	Hispanic	Single	Needs Improvement	2
34	d approach democratic	Sales	General - Con	02-09-1944	TX	Splicer	Male	8779	Black	Widowed	Exceeds	4
35		Sales	Aerial	02-10-1944	TX	Lineman	Male	74682	Asian	Married	Fully Meets	3
36	central unit per argue. M	Sales	General - Con	29-12-1997	CO	Foreman	Male	78046	Hispanic	Married	Needs Improvement	2
37	urself book budget prod	Sales	Field Operations	08-09-1942	CO	Coordinator	Male	27270	Hispanic	Divorced	Needs Improvement	2
38	r can score else investm	Sales	Field Operations	21-06-1951	IN	Tower Hand	Male	12703	Hispanic	Single	Fully Meets	3
39	tuff different color how	Sales	Shop (Fleet)	17-06-1998	MA	Mechanic	Male	66835	Black	Widowed	Needs Improvement	2
40		Sales	General - Con	01-07-1962	MA	Flagger	Male	66150	Asian	Divorced	Needs Improvement	2
41	gure employee card edu	IT/IS	Aerial	26-01-1979	KY	Supervisor	Male	64288	Other	Married	Exceeds	4
42		Sales	Fielders	14-05-1987	KY	Engineer	Female	94333	Asian	Divorced	Exceeds	4
43		Sales	Wireline Construction	26-04-1998	KY	Foreman	Female	45453	Black	Single	Fully Meets	3
44	t cut matter arrive differ	Sales	Field Operations	21-02-1945	TX	Driver	Female	81905	Asian	Divorced	Needs Improvement	2
45	k professor statement re	Sales	Field Operations	31-05-1997	TX	Technician	Female	12491	Black	Married	Needs Improvement	2
46		Sales	Field Operations	01-03-1967	TX	Foreman	Male	64350	Asian	Married	Fully Meets	3
47		Sales	Project Management - Con	01-12-1982	TX	Director	Male	74124	Other	Married	Exceeds	4
48		Sales	Shop (Fleet)	10-01-1950	CO	Manager	Male	33379	Hispanic	Widowed	Exceeds	4
49		Sales	Catv	16-12-1965	CO	Laborer	Male	34481	Other	Divorced	Fully Meets	3
50		Sales	General - Con	25-12-1957	IN	Foreman	Male	90406	Asian	Widowed	Fully Meets	3

3. 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	3.042488619
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."

Row Labels	Count of Employee ID
Terminated for Cause	**66**
Involuntary	21
Resignation	22
Retirement	10
Voluntary	13
Voluntarily Terminated	**321**
Involuntary	86
Resignation	74
Retirement	76
Voluntary	85
Grand Total	**387**

The most common "Termination Type" in "Terminated For a Cause" is "Resignation".

The most common "Termination Type" in "Voluntary Terminated" is "Involuntary".

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

Row Labels	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**

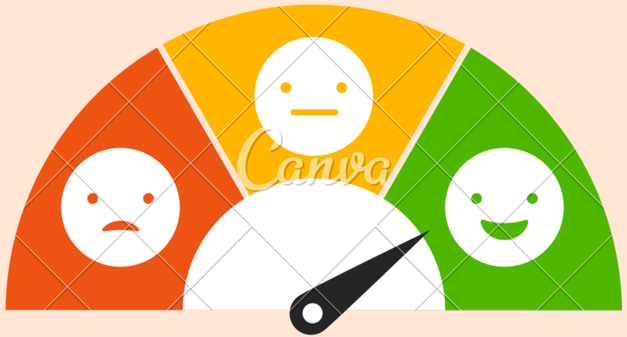
7. Use VLOOKUP to find the supervisor's email address for a specific employee.

```
=VLOOKUP(AC4,A1:AA3001,8,FALSE)
```

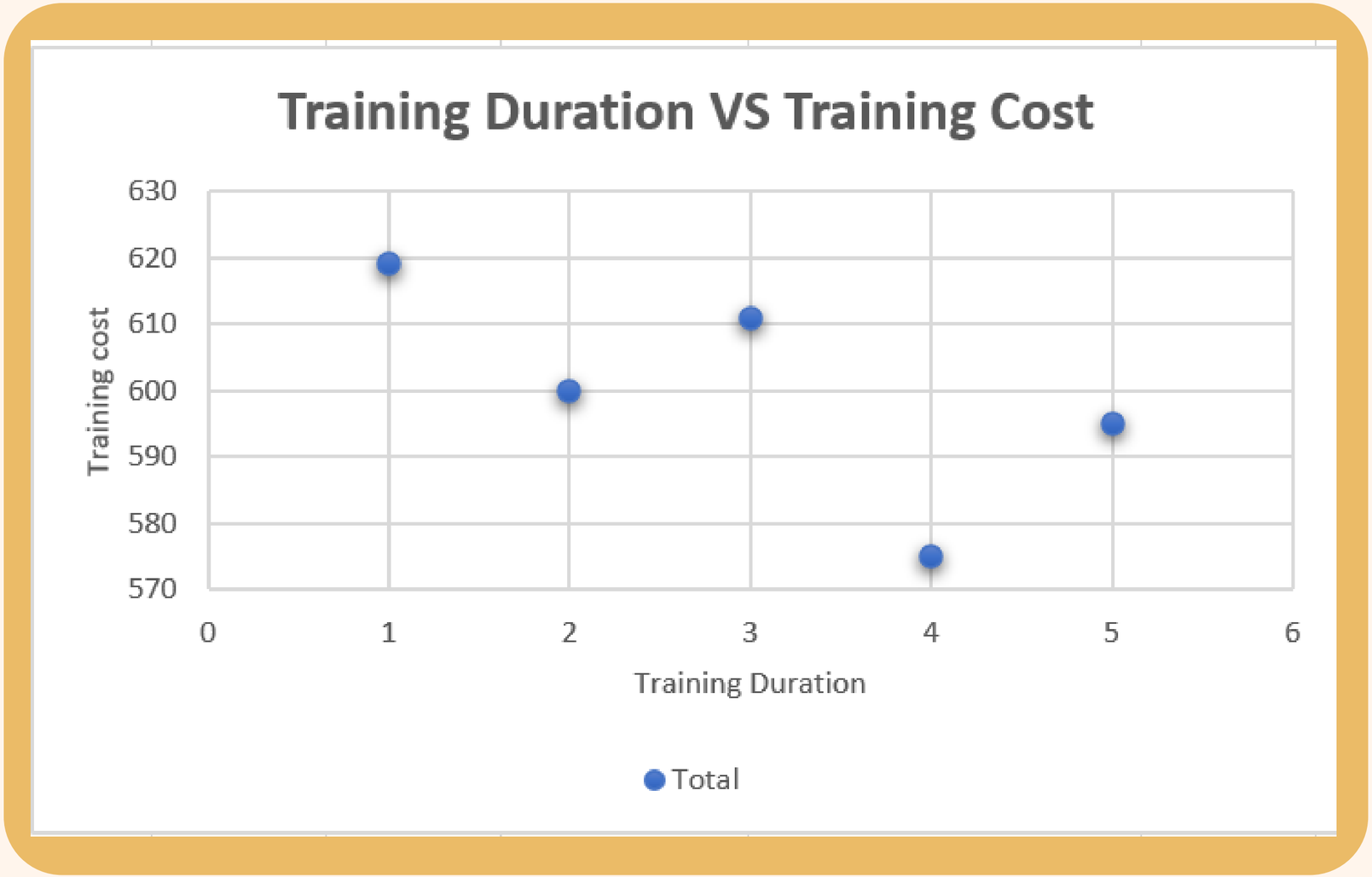
EMPLOYEE_ID	1010	
SUPERVISOR'S EMAIL	kamari.hunter@bilearner.com	

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

Row Labels	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."



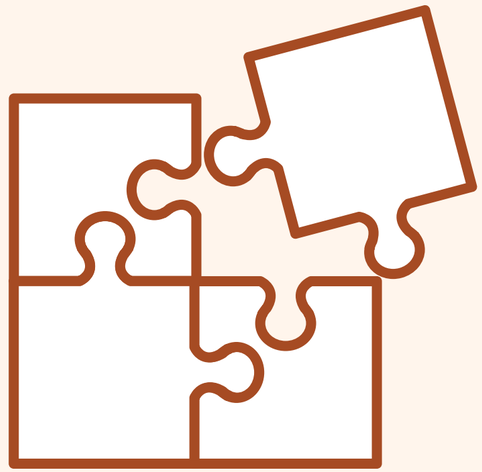
10. Build a pivot table that shows the count of employees by "RaceDesc" and "GenderCode."

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

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

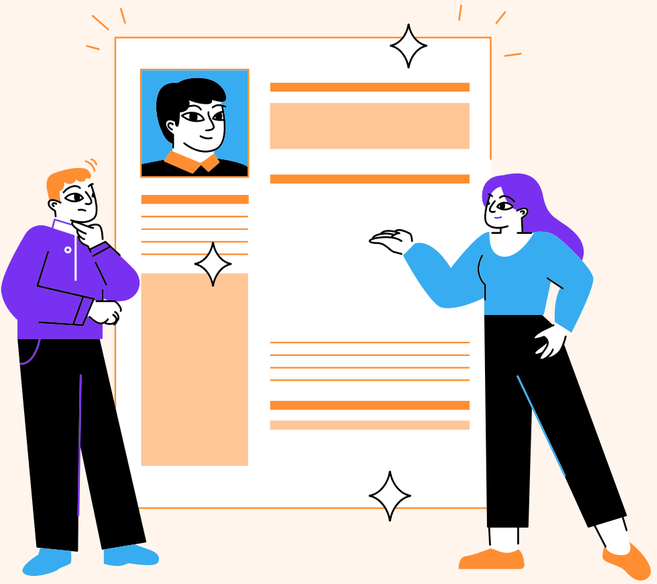
```
=INDEX(C2:C3001, MATCH(N2, A2:A3001, 0))
```

Employee id		1012
Training Program Name		Technical Skills

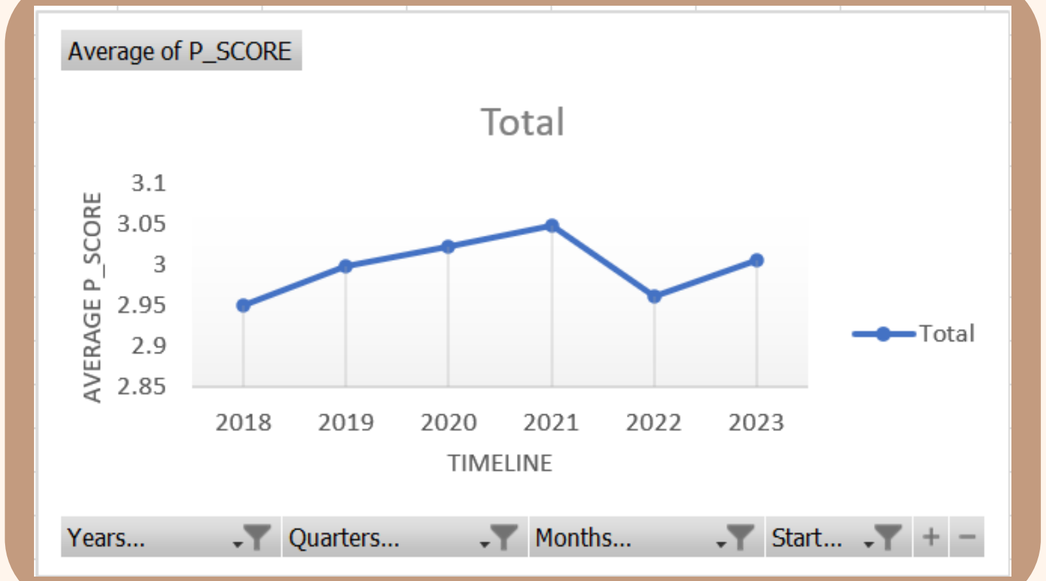


12. Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

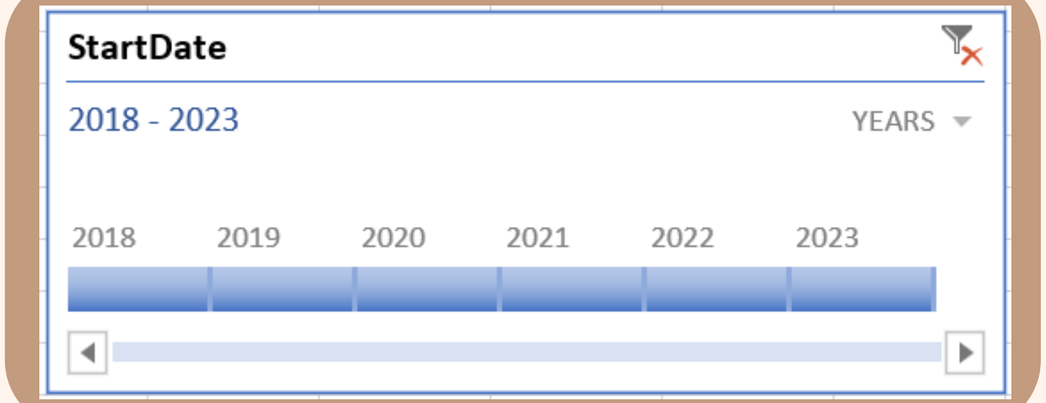
Row Labels	Count of Performance Score
BPC	303
CCDR	300
EW	302
MSC	296
NEL	304
PL	301
PYZ	299
SVG	304
TNS	297
WBL	294
Grand Total	3000

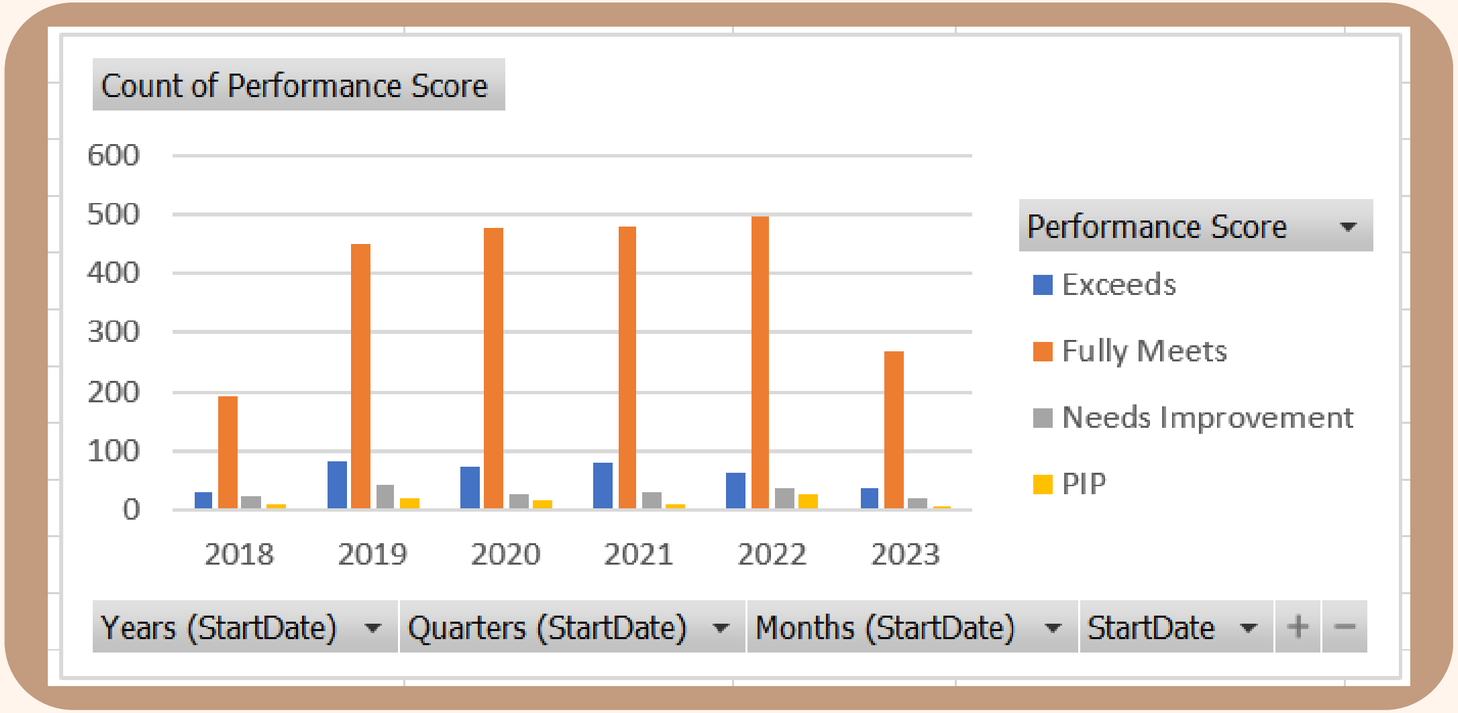


13. Design a dynamic chart that allows users to select and visualize the performance of any employee over time.



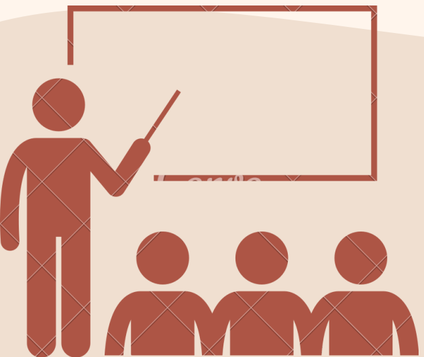
Count of Performance Score	Column Labels				
Row Labels	Exceeds	Fully Meets	Needs Improvement	PIP	Grand Total
2018	31	191	22	11	255
2019	84	450	43	21	598
2020	73	476	26	17	592
2021	81	478	30	11	600
2022	62	497	36	25	620
2023	38	269	20	8	335
Grand Total	369	2361	177	93	3000



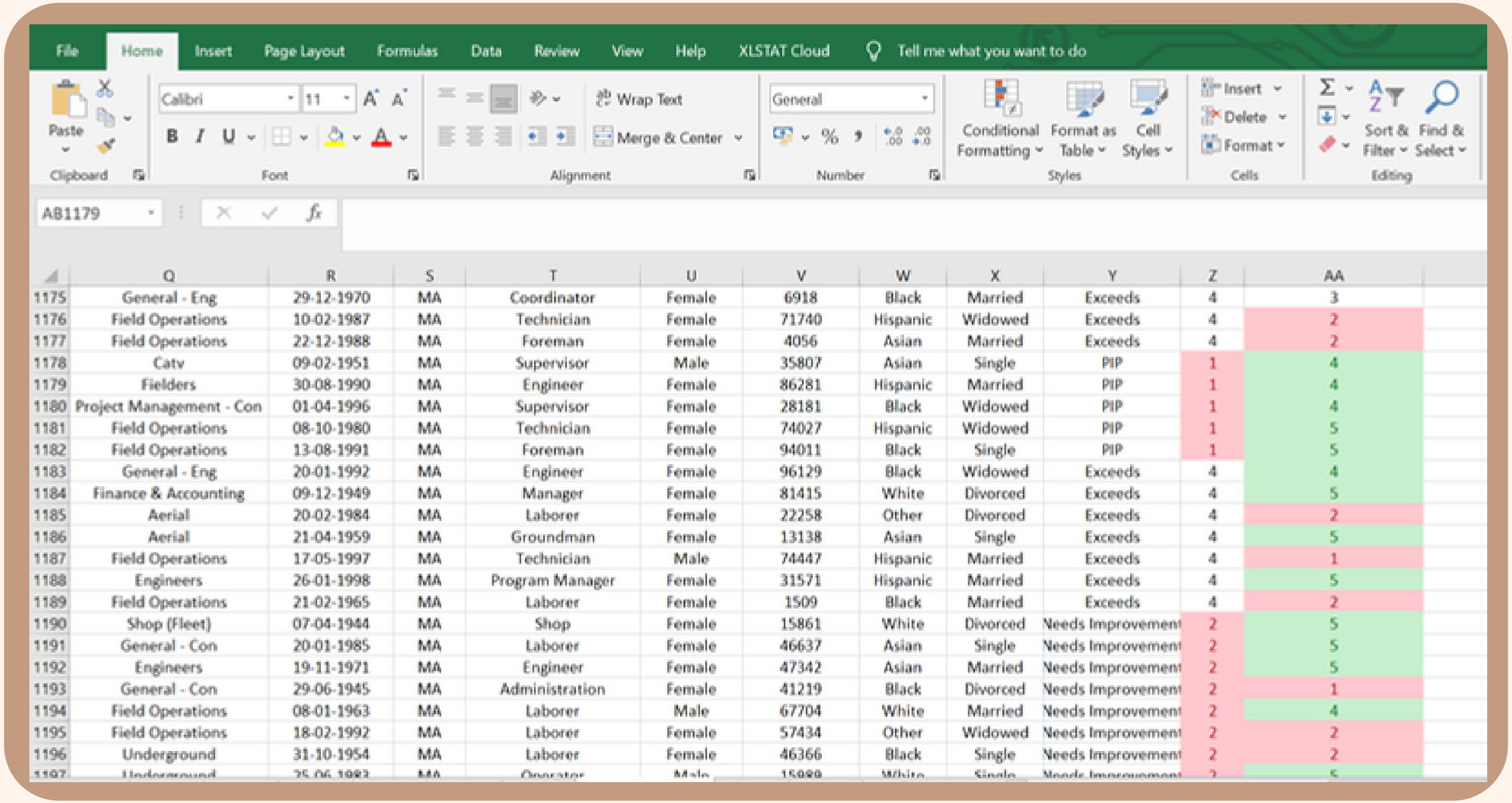


14. Calculate the total training cost for each "Training Program Name" and display it in a bar chart.

Row Labels	Sum of Training Cost
Communication Skills	$3,65,023.24
Customer Service	$3,20,575.04
Leadership Development	$3,23,902.03
Project Management	$3,43,313.17
Technical Skills	$3,23,072.61
Grand Total	**$16,75,886.09**



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



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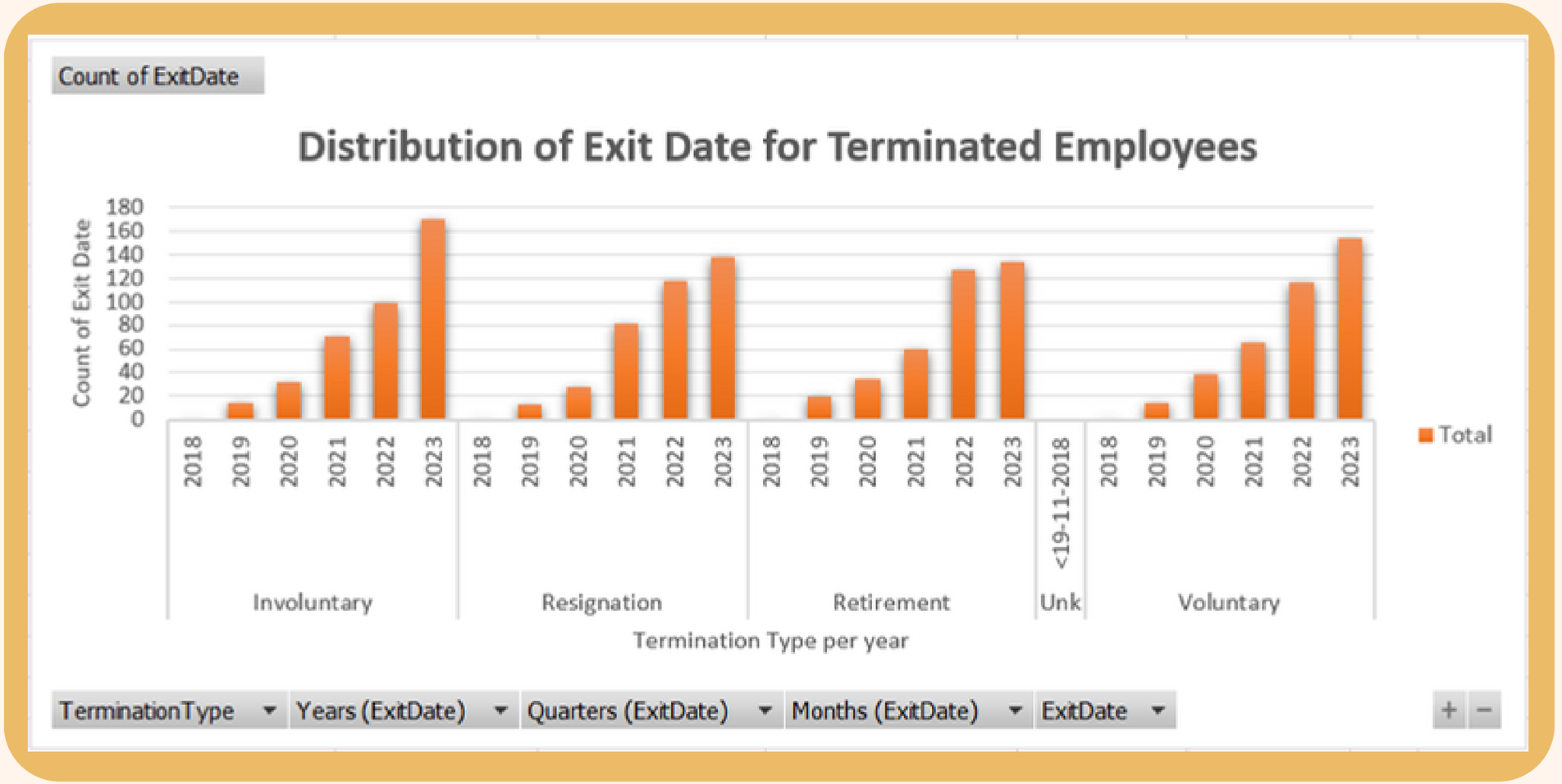
	Q	R	S	T	U	V	W	X	Y	Z	AA
1175	General - Eng	29-12-1970	MA	Coordinator	Female	6918	Black	Married	Exceeds	4	3
1176	Field Operations	10-02-1987	MA	Technician	Female	71740	Hispanic	Widowed	Exceeds	4	2
1177	Field Operations	22-12-1988	MA	Foreman	Female	4056	Asian	Married	Exceeds	4	2
1178	Catv	09-02-1951	MA	Supervisor	Male	35807	Asian	Single	PIP	1	4
1179	Fielders	30-08-1990	MA	Engineer	Female	86281	Hispanic	Married	PIP	1	4
1180	Project Management - Con	01-04-1996	MA	Supervisor	Female	28181	Black	Widowed	PIP	1	4
1181	Field Operations	08-10-1980	MA	Technician	Female	74027	Hispanic	Widowed	PIP	1	5
1182	Field Operations	13-08-1991	MA	Foreman	Female	94011	Black	Single	PIP	1	5
1183	General - Eng	20-01-1992	MA	Engineer	Female	96129	Black	Widowed	Exceeds	4	4
1184	Finance & Accounting	09-12-1949	MA	Manager	Female	81415	White	Divorced	Exceeds	4	5
1185	Aerial	20-02-1984	MA	Laborer	Female	22258	Other	Divorced	Exceeds	4	2
1186	Aerial	21-04-1959	MA	Groundman	Female	13138	Asian	Single	Exceeds	4	5
1187	Field Operations	17-05-1997	MA	Technician	Male	74447	Hispanic	Married	Exceeds	4	1
1188	Engineers	26-01-1998	MA	Program Manager	Female	31571	Hispanic	Married	Exceeds	4	5
1189	Field Operations	21-02-1965	MA	Laborer	Female	1509	Black	Married	Exceeds	4	2
1190	Shop (Fleet)	07-04-1944	MA	Shop	Female	15861	White	Divorced	Needs Improvement	2	5
1191	General - Con	20-01-1985	MA	Laborer	Female	46637	Asian	Single	Needs Improvement	2	5
1192	Engineers	19-11-1971	MA	Engineer	Female	47342	Asian	Married	Needs Improvement	2	5
1193	General - Con	29-06-1945	MA	Administration	Female	41219	Black	Divorced	Needs Improvement	2	1
1194	Field Operations	08-01-1963	MA	Laborer	Male	67704	White	Married	Needs Improvement	2	4
1195	Field Operations	18-02-1992	MA	Laborer	Female	57434	Other	Widowed	Needs Improvement	2	2
1196	Underground	31-10-1954	MA	Laborer	Female	46366	Black	Single	Needs Improvement	2	2
1197	Underground	25-06-1983	MA	Operator	Male	15099	White	Single	Needs Improvement	2	5

16. 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	3.065217391
2020	2.939189189
2021	2.888333333
2022	2.943548387
2023	2.832835821
Grand Total	2.939666667

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



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

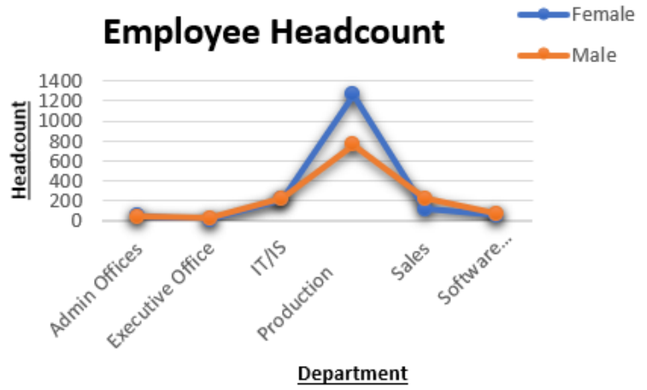
Row Labels	Sum of Training Cost
Aaronborough	841.22
Aaronburgh	633.96
Aaronstad	939.02
Abbottton	609.01
Acevedoshire	443.55
Adamborough	444.22
Adammouth	1248.77
Adamsberg	962.45
Adamsmouth	367.34
Aguirreland	881.71
Alexanderberg	494.29
Alexanderchester	346.93
Alexandraview	450.64
Alexandriachester	778.25
Alexishaven	127.93
Alfredmouth	328.74
Aliciaburgh	966.19
Aliciahaven	373.87

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

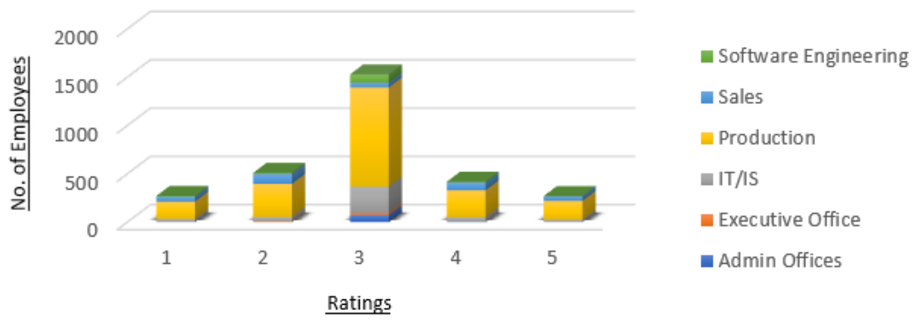
EMPLOYEE DATA ANALYSIS

PSYLIQ

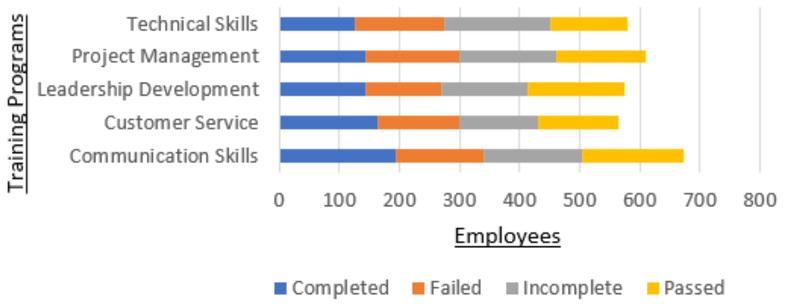
Employee Headcount



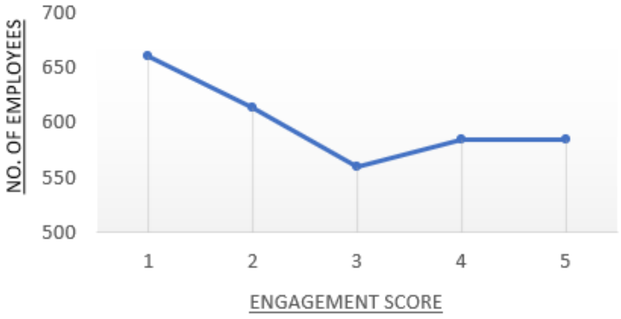
Employee Rating Per Department



Training Outcome

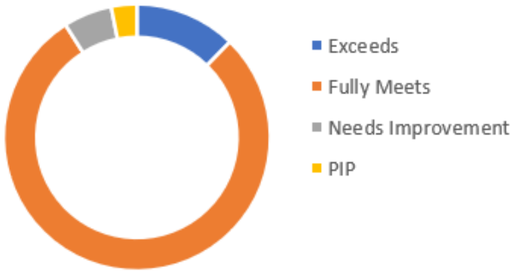


Engagement Score of Employees



Training Cost Per Program

Performance Score of Employees



DepartmentType

- Admin Offices
- Executive Office
- IT/IS
- Production
- Sales

GenderCode

- Female
- Male

THANK YOU SO MUCH!