



# **EMPLOYEE DATA ANALYSIS**

By Rahul Acharya

CAN YOU CREATE A PIVOT TABLE TO SUMMARIZE THE TOTAL  
NUMBER OF EMPLOYEES IN EACH DEPARTMENT?

Departments 							
	Admin Offices	Executive Office	IT/IS	Production	Sales	Software Engineering	Grand Total
Count	80	24	430	2020	331	115	3000

## APPLY CONDITIONAL FORMATTING TO HIGHLIGHT EMPLOYEES WITH A "PERFORMANCE SCORE" BELOW 3 IN RED.

employee\_data.xlsx - Excel

Rahul Acharya

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Normal Page Break Preview Custom Workbook Views Ruler Formula Bar Gridlines Headings Show Zoom 100% Zoom to Selection New Window Arrange All Freeze Panes Split Hide View Side by Side Synchronous Scrolling Reset Window Position Switch Windows Macros

AA381 =IF(Z381="Exceeds",4,IF(Z381="Fully Meets",3,IF(Z381="Needs Improvement",2,1)))

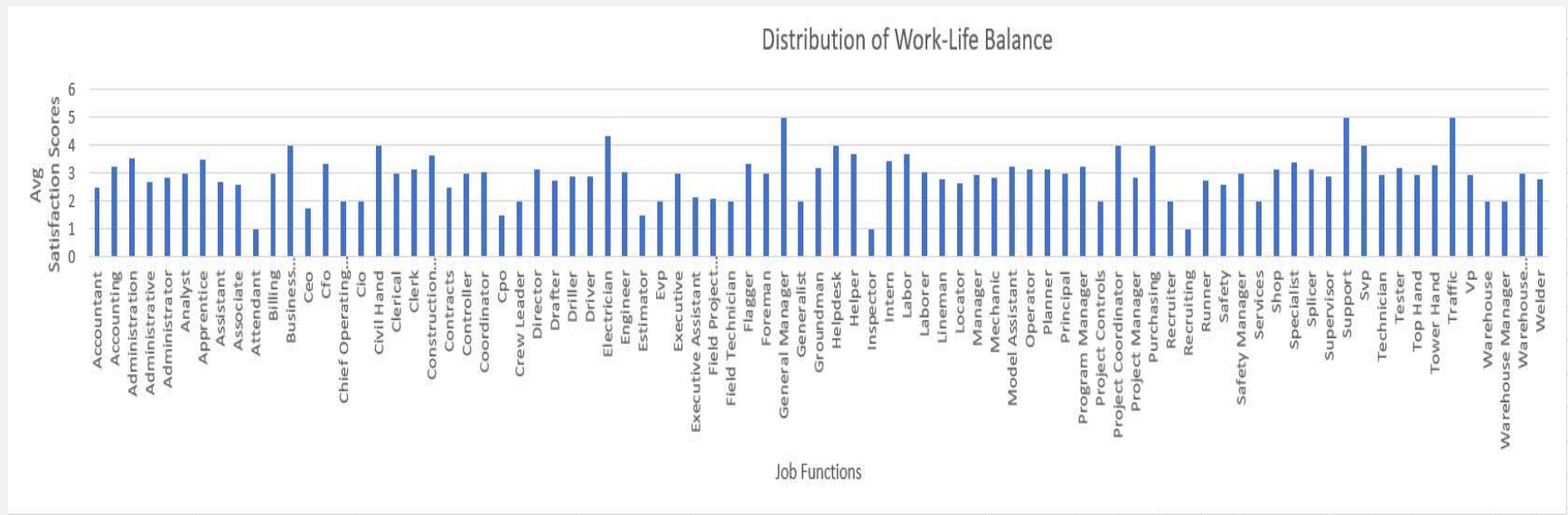
	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
	TerminationDescription	DepartmentType	Division	DOB	State	JobFunctionDescription	GenderCode	LocationCode	RaceDesc	MaritalDesc	Performance Score	p_score	Current Employee Rating
374	Account Republican reduce	Admin Offices	Field Opera	20-04-198	MA	Laborer	Male	20630	Other	Divorced	Exceeds	4	3
375		IT/IS	Aerial	#####	MA	Foreman	Female	78109	White	Married	Exceeds	4	3
376		Admin Offices	Technology	#####	MA	Intern	Female	1498	Asian	Divorced	Exceeds	4	3
377	Example field consider befc	Sales	Field Opera	#####	MA	Supervisor	Female	30890	Other	Single	Exceeds	4	3
378	Current budget certain inter	Admin Offices	General - C	18-05-196	MA	Technician	Female	67773	White	Divorced	Exceeds	4	3
379		Admin Offices	Fielders	#####	MA	Engineer	Female	12640	White	Married	PIP	1	3
380		Admin Offices	General - S	21-10-198	MA	Supervisor	Male	64384	White	Widowed	Exceeds	4	3
381		Admin Offices	Field Opera	#####	MA	Laborer	Male	3676	Hispanic	Single	Exceeds	4	3
382		IT/IS	Aerial	#####	MA	Foreman	Female	71974	Other	Single	PIP	1	3
383		Admin Offices	Field Opera	16-03-196	MA	Supervisor	Female	27614	White	Widowed	Exceeds	4	3
384	Affect bar himself mention	Admin Offices	General - C	#####	MA	Technician	Female	88549	Hispanic	Divorced	Exceeds	4	3
385	Thousand every job spring r	Admin Offices	Field Opera	#####	MA	Groundman	Female	14083	Other	Single	PIP	1	3
386		Admin Offices	Field Opera	#####	MA	Laborer	Female	37965	Hispanic	Divorced	PIP	1	3
387	Realize view write beautiful	Admin Offices	General - C	19-08-197	MA	Technician	Female	13405	White	Married	Exceeds	4	3
388	Training run sport prevent t	Admin Offices	General - C	27-08-195	MA	Laborer	Male	63614	Hispanic	Divorced	PIP	1	3
389	Approach better little check	Admin Offices	Field Opera	23-12-197	MA	Construction Manager	Female	31721	Black	Single	Exceeds	4	3
390		Production	Isp	#####	MA	Manager	Male	2128	Hispanic	Widowed	Exceeds	4	3
391		Production	General - C	21-12-195	MA	Lineman	Male	2108	Asian	Married	Exceeds	4	3
392		Production	Wireless	18-11-194	MA	Supervisor	Female	2093	Other	Single	Needs Improvement	2	3
393	Because wind like.	Production	Field Opera	25-02-195	MA	Operator	Female	2093	Hispanic	Widowed	Exceeds	4	3
394	On beyond process before	Production	General - C	20-03-194	MA	Flagger	Female	1775	Other	Single	Exceeds	4	3
395		Production	Field Opera	13-05-194	MA	Laborer	Male	2134	Black	Married	Exceeds	4	3
396	Father change close.	Production	General - C	14-11-196	MA	Laborer	Male	2045	Black	Divorced	Exceeds	4	3
397	Vote look produce consider	Production	General - E	#####	MA	Engineer	Female	1810	Hispanic	Married	Exceeds	4	3
398	Science fall always move th	Production	General - C	26-02-198	MA	Laborer	Male	1801	Other	Single	Exceeds	4	3
399	Mr chair subject then techn	Production	Splicing	#####	MA	Runner	Female	2451	White	Single	Needs Improvement	2	3
400		Production	General - C	15-12-197	MA	Foreman	Female	2031	Other	Widowed	Needs Improvement	2	3
401	Ability bed police onto exac	Production	Field Opera	#####	MA	Laborer	Female	2128	White	Divorced	Exceeds	4	3
402		Production	Splicing	17-08-196	MA	Lineman	Male	2451	White	Single	Exceeds	4	3
403		Production	General - S	#####	MA	Technician	Female	1902	White	Divorced	Exceeds	4	3

Ready Accessibility: Investigate

CALCULATE THE AVERAGE "SATISFACTION SCORE" FOR MALE AND FEMALE EMPLOYEES SEPARATELY USING A PIVOT TABLE.

Row Labels	 Average of Satisfaction Score	
Female	3.005945303	
Row Labels	 Average of Satisfaction Score	
Male	3.042488619	

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 Employee ID
<b>Terminated for Cause</b>	<b>66</b>
Involuntary	21
Resignation	22
Retirement	10
Voluntary	13
<b>Voluntarily Terminated</b>	<b>321</b>
Involuntary	86
Resignation	74
Retirement	76
Voluntary	85
<b>Grand Total</b>	<b>387</b>
The most common 'Termination Type' among 'Terminated for Cause' is ' <b>Resignation</b> '	
The most common 'Termination Type' among 'Voluntarily Terminated' is ' <b>Involuntary</b> '	

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





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	

CREATE A SCATTER PLOT TO EXPLORE THE RELATIONSHIP  
BETWEEN "TRAINING DURATION (DAYS)" AND "TRAINING COST."



BUILD A PIVOT TABLE THAT SHOWS THE COUNT OF  
EMPLOYEES BY "RACEDESC" AND "GENDERCODE."

RaceDesc	GenderCode	Count of Employee ID
Asian	Female	346
	Male	283
<b>Asian Total</b>		<b>629</b>
Black	Female	346
	Male	272
<b>Black Total</b>		<b>618</b>
Hispanic	Female	325
	Male	247
<b>Hispanic Total</b>		<b>572</b>
Other	Female	318
	Male	264
<b>Other Total</b>		<b>582</b>
White	Female	347
	Male	252
<b>White Total</b>		<b>599</b>
<b>Grand Total</b>		<b>3000</b>

USE INDEX AND MATCH FUNCTIONS TO FIND THE "TRAINING PROGRAM NAME" FOR AN EMPLOYEE WITH A SPECIFIC ID.

Employee ID	Training Date	Training Program	Training Type	Training Outcome	Location	Trainer	Training Duration	Training Cost										
1001	21-Sep-22	Customer Service	Internal	Failed	Port Greg	Amanda Daniels	4	511										
1002	19-Jul-23	Leadership Development	Internal	Failed	Brandonview	Brittany Chambers	2	582										
1003	24-Feb-23	Technical Skills	Internal	Incomplete	Port Briannahaven	Mark Roberson	4	777										
1004	12-Jan-23	Customer Service	Internal	Completed	Knightborough	Richard Fisher	2	824										
1005	12-May-23	Communication Skills	External	Passed	Bruceshire	Heather Shaffer	4	146										
1006	08-May-23	Project Management	Internal	Failed	Erinfort	Michael Duke	2	838										

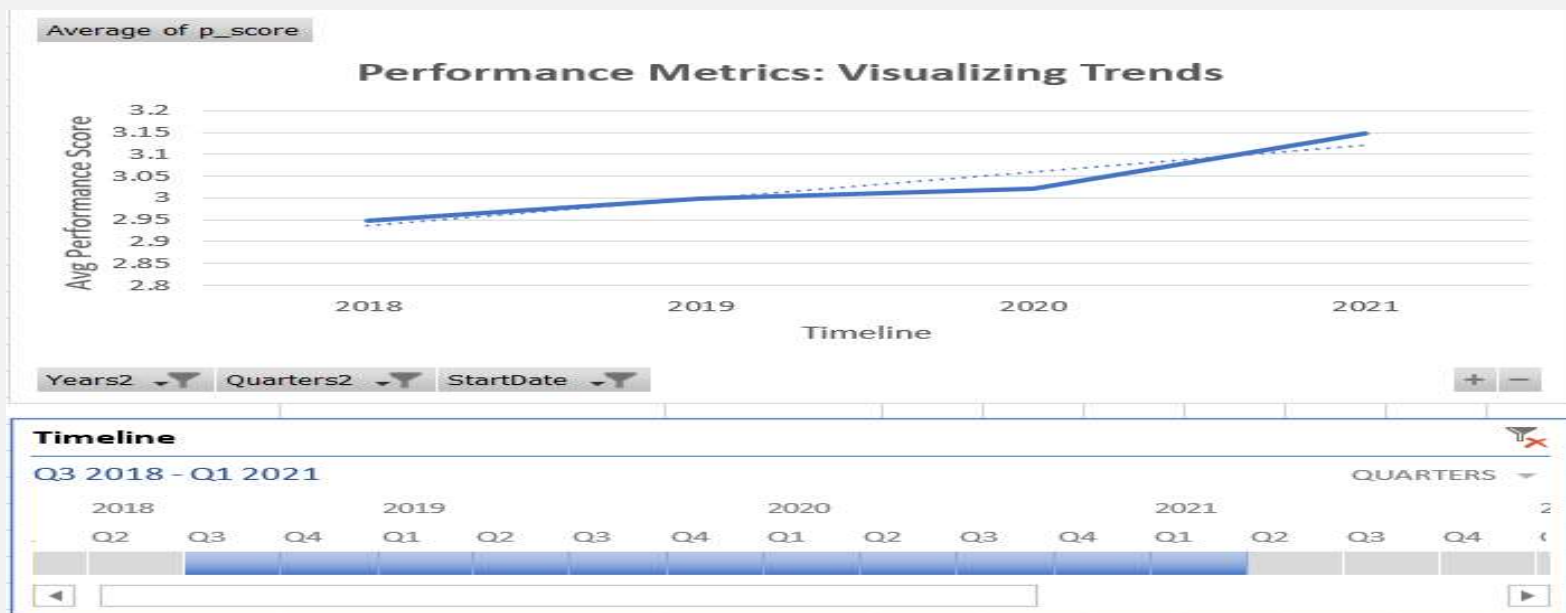
Training Program Name	Formula
Technical Skills	INDEX([training_and_development_data1.xlsx]training_and_development_data!\$A\$1:\$I\$3001, MATCH(\$A\$124,[training_and_development_data1.xlsx]training_and_development_data!\$A\$1:\$I\$3001,0),3)

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
<b>Grand Total</b>	<b>3000</b>

If you expanded the 'Business Unit' you will see a list of 'JobFunctionDescription' and their 'PerformanceScores'

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.

Row Labels	Sum of Training Cost				
Communication Skills	\$3,65,023				
Customer Service	\$3,20,575				
Leadership Development	\$3,23,902				
Project Management	\$3,43,313				
Technical Skills	\$3,23,073				
<b>Grand Total</b>	<b>\$16,75,886</b>				



APPLY ADVANCED CONDITIONAL FORMATTING TO HIGHLIGHT THE TOP 10% AND BOTTOM 10% OF EMPLOYEES BASED ON "CURRENT EMPLOYEE RATING."

1	DepartmentType	Division	DOB	State	JobFunctionDescription	GenderCode	LocationCode	RaceDesc	MaritalDesc	Performance Score	p_score	Current Employee Rating	AC	AD	AE
1096	Production	Project Ma	19-10-199	MA	Manager	Female		60616	Other	Divorced	Fully Meets	3			
1097	Production	Field Opera	17-07-198	MA	Construction Manager	Female		17358	Black	Single	Fully Meets	3			
1098	Production	Aerial	25-02-196	MA	Lineman	Female		29605	Black	Widowed	PIP	1			
1099	Production	Catv	19-05-195	MA	Laborer	Female		51886	Other	Divorced	PIP	1			
1100	Production	General - S	29-03-196	MA	Vp	Female		66261	Hispanic	Widowed	PIP	1			
1101	Production	Aerial	24-11-194	MA	Coordinator	Female		26880	Other	Divorced	Exceeds	4			
1102	Production	Fielders	13-12-196	MA	Engineer	Female		35098	Hispanic	Married	PIP	1			
1103	Production	Field Opera	23-01-196	MA	Driller	Female		90728	Asian	Single	Exceeds	4			
1104	Production	Field Opera	25-12-198	MA	Construction Manager	Female		49149	Asian	Widowed	Exceeds	4			
1105	Production	Field Opera	19-08-194	MA	Laborer	Female		73771	Hispanic	Widowed	Exceeds	4			
1106	Production	General - S	27-01-196	MA	Supervisor	Female		92541	Hispanic	Single	Needs Improvement	2			
1107	Production	Wireline Cc	14-11-196	MA	Foreman	Male		47601	White	Widowed	Exceeds	4			
1108	Production	Field Opera	27-12-194	MA	Project Manager	Female		68361	Hispanic	Widowed	Exceeds	4			
1109	Production	Field Opera	19-09-197	MA	Driller	Female		71922	White	Widowed	Needs Improvement	2			
1110	Production	Field Opera	22-11-198	MA	Tower Hand	Female		51689	Other	Divorced	Exceeds	4			
1111	Production	General - S	13-05-194	MA	Vp	Female		97553	Black	Single	Exceeds	4			
1112	Production	General - C	17-05-195	MA	Lineman	Female		92067	Asian	Single	Needs Improvement	2			
1113	Production	Engineers	24-09-194	MA	Technician	Female		65114	Other	Widowed	Exceeds	4			
1114	Production	General - C	20-10-194	MA	Clerk	Female		9677	White	Widowed	Exceeds	4			
1115	Production	Engineers	24-04-199	MA	Project Manager	Female		38475	White	Single	Exceeds	4			
1116	Production	Billable Cor	30-03-197	MA	Engineer	Female		25166	Asian	Married	Exceeds	4			
1117	Production	Engineers	#####	MA	Engineer	Female		81288	Black	Divorced	Needs Improvement	2			
1118	Production	Field Opera	17-05-199	MA	Laborer	Female		45637	Hispanic	Divorced	Exceeds	4			
1119	Production	Project Ma	#####	MA	Coordinator	Female		41529	White	Widowed	Exceeds	4			
1120	Production	General - C	#####	MA	Foreman	Female		72491	White	Married	Exceeds	4			
1121	Production	Wireline Cc	17-01-196	MA	Lineman	Female		68667	Asian	Divorced	Needs Improvement	2			
1122	Production	Splicing	#####	MA	Splicer	Female		12265	Asian	Married	Exceeds	4			
1123	Production	General - C	21-10-197	MA	Locator	Female		65636	Asian	Married	Needs Improvement	2			
1124	Production	Catv	#####	MA	Project Manager	Female		96364	White	Widowed	Exceeds	4			
1125	Production	Wireline Cc	#####	MA	Laborer	Female		42707	White	Single	Exceeds	4			



USE A CALCULATED FIELD IN A PIVOT TABLE TO DETERMINE THE AVERAGE "ENGAGEMENT SCORE" PER YEAR..

Row Labels	Average of Engagement Score
<b>2022</b>	<b>2.918281382</b>
Qtr3	2.96347032
Qtr4	2.891855808
<b>2023</b>	<b>2.953667954</b>
Qtr1	2.902216428
Qtr2	3.013679891
Qtr3	2.93968254
<b>Grand Total</b>	<b>2.939666667</b>

CREATE A HISTOGRAM TO UNDERSTAND THE DISTRIBUTION OF "EXITDATE" FOR TERMINATED EMPLOYEES.



UTILIZE THE SUMPRODUCT FUNCTION TO CALCULATE THE TOTAL TRAINING COST FOR EMPLOYEES IN A SPECIFIC LOCATION.

SumProduct for "Port Greg"	Formula
510.83	<code>SUMPRODUCT(((training_and_development_data1.xlsx)training_and_development_data!\$F\$2:\$F\$3001="Port Greg")*([training_and_development_data1.xlsx]training_and_development_data!\$I\$2:\$I\$3001))</code>

DEVELOP A DASHBOARD THAT PROVIDES AN OVERVIEW OF KEY HR METRICS, INCLUDING HEADCOUNT, PERFORMANCE, AND TRAINING COSTS, USING CHARTS AND PIVOT TABLES.

