

Employee Data Analysis

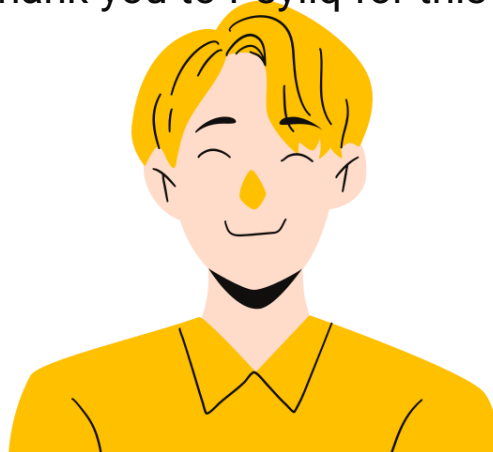
Shouvik Saha

Data Analyst Intern



Acknowledgement

I want to express my sincere gratitude to Psyliq for providing me with the opportunity to intern as a data analyst. I am thankful for the support and guidance I received from the team at Psyliq throughout my internship. Additionally, I appreciate the collaborative environment that allowed me to learn and grow professionally. I am grateful for the contributions of my colleagues and mentors, who have been instrumental in my development as a data analyst. Lastly, I want to thank my family and friends for their unwavering support. This internship has been a valuable experience that has enhanced my skills and knowledge in data analytics. Thank you to Psyliq for this opportunity.



Objective

The internship project focused on leveraging Excel and pivot points, and data visualizations to conduct a thorough analysis of employee data, aiming to derive actionable insights for informed business decisions. It concentrated on employee demographics, performance metrics, and rates, ultimately delivering improved strategies for workforce management through effective visualizations.



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.



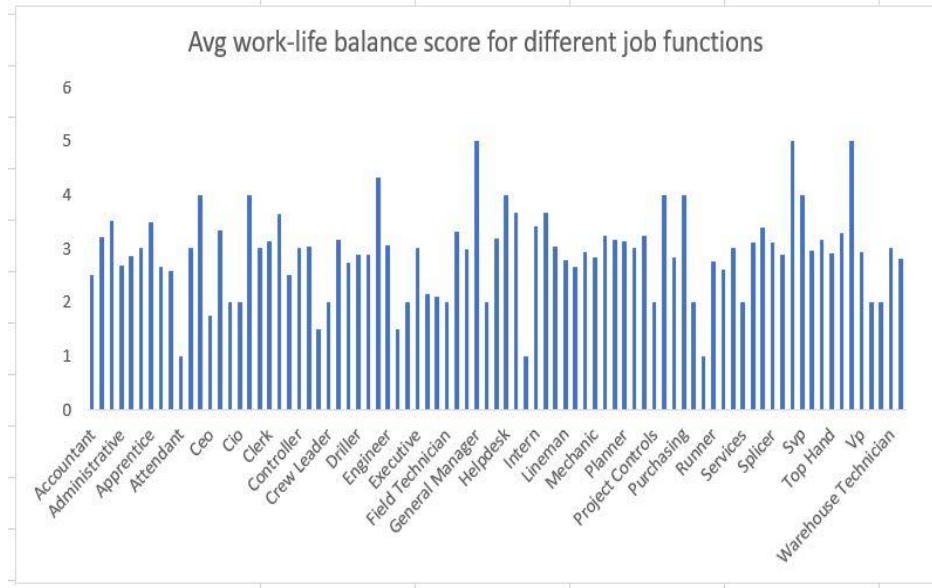
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
	Employee ID	First Name	Last Name	Start Date	Exit Date	Title	Supervisor	AD Email	Business	Employee	Employee Pay Zone	Employee Termination	Termination Department	Type	Division	DOB	State	Job Function	Descriptive	Gender	Location	Race	Descriptive	Marital	Performance Score	Current Employee Rating
2	3427	Uriah	Bridges	20-Sep-19		Producti	Peter Oneill	uriah.bridges@biler.com	CCDR	Active	Contract Zone C	Tempor	Unk		Production	Finance & Accounting	10-07-1969	MA	Accounting	Female	34904	White	Widowed	Fully Meets		4
3	3428	Paula	Small	11-Feb-23		Producti	Renee McCormick	paula.small@biler.com	EW	Active	Contract Zone A	Part-Tim	Unk		Production	Aerial	30-08-1965	MA	Labor	Male	6593	Hispanic	Widowed	Fully Meets		3
4	3429	Edward	Buck	10-Dec-18		Area Sal	Crystal Walker	edward.buck@biler.com	PL	Active	Full-Tim Zone B	Part-Tim	Unk		Sales	General - Sga	10-06-1991	MA	Assistant	Male	2330	Hispanic	Widowed	Fully Meets		4
5	3430	Michael	Riordan	21-Jun-21		Area Sal	Rebekah Wright	michael.riordan@biler.com	CCDR	Active	Contract Zone A	Full-Tim	Unk		Sales	Finance & Accounting	04-04-1998	ND	Clerk	Male	58782	Other	Single	Fully Meets		2
6	3431	Jasmine	Onque	23-Jun-19		Area Sal	Jason Kim	jasmine.onque@biler.com	TNS	Active	Contract Zone A	Tempor	Unk		Sales	General - Con	29-08-1963	FL	Laborer	Female	3374	Other	Married	Fully Meets		3
7	3432	Maruk	Fraval	17-Jan-20		Area Sal	Shen Campos	maruk.fraval@biler.com	BPC	Active	Contract Zone B	Full-Tim	Unk		Sales	Field Operations	04-03-1949	CT	Driver	Male	6950	Black	Married	Fully Meets		3
8	3433	Lelia	Coste	06-Apr-22	03-Jul-23	Area Sal	Jacob Braun	lelia.coste@biler.com	WBL	Active	Full-Tim Zone B	Tempor	Involunt. Me see		Sales	General - Eng	07-01-1942	CA	Technician	Female	30007	Hispanic	Divorced	Exceeds		4
9	3434	Shariene	Terry	06-Nov-20	29-Jan-23	Area Sal	Tracy Marquez	shariene.terry@biler.com	CCDR	Active	Contract Zone C	Full-Tim	Involunt. Blue co		Sales	Engineers	03-07-1957	OR	Engineer	Female	97766	White	Divorced	Exceeds		2
10	3435	Jac	McKinzie	18-Aug-18		Area Sal	Sharon Becker	jac.mckinzie@biler.com	NEL	Active	Contract Zone B	Part-Tim	Unk		Sales	Executive	15-05-1974	TX	Executive Assistant	Male	78789	Black	Widowed	Exceeds		3
11	3436	Joseph	Martins	21-Jan-22	29-Jun-23	Area Sal	George Jenkins	joseph.martins@biler.com	BPC	Active	Part-Tim Zone B	Tempor/Resigna	Summer		Sales	Engineers	11-11-1949	TX	Engineer	Male	78207	Asian	Widowed	Fully Meets		5
12	3437	Myriam	Givens	04-Aug-23		Area Sal	Troy White	myriam.givens@biler.com	SVG	Active	Contract Zone B	Tempor	Unk		Sales	Field Operations	26-01-1964	IN	Technician	Female	46204	Other	Single	Fully Meets		3
13	3438	Dheepa	Nguyen	10-Aug-18	04-Nov-19	Area Sal	Brian Miller	dheepa.nguyen@biler.com	MSC	Active	Full-Tim Zone C	Tempor/Retireme	Alone or		Sales	General - Con	04-06-1948	GA	Technician	Female	30428	Asian	Married	Fully Meets		5
14	3439	Barthole	Khemmi	25-May-22	27-Nov-22	Area Sal	Charles Parks	bartholemev.khemmi@biler.com	EW	Active	Full-Tim Zone A	Tempor	Involunt. Foot in th		Sales	Splicing	24-11-1981	CO	Splicer	Male	80820	Other	Single	Fully Meets		3
15	3440	Xana	Potts	05-Dec-19	17-Feb-23	Area Sal	Gregory Walker	xana.potts@biler.com	CCDR	Active	Contract Zone A	Full-Tim	Resigna Degree v		Sales	Finance & Accounting	11-06-1951	KY	Controller	Female	40220	White	Divorced	Fully Meets		3
16	3441	Prater	Jeremy	28-Apr-18		Area Sal	Tyler Lewis	prater.jeremy@biler.com	BPC	Active	Part-Tim Zone A	Part-Tim	Unk		Sales	General - Con	21-11-1952	NV	Lineman	Male	89339	Black	Widowed	Exceeds		4
17	3442	Kaylah	Moore	08-Jul-19	16-Jun-22	Area Sal	Ashley Scott	kaylah.moore@biler.com	PV2	Active	Full-Tim Zone A	Full-Tim	Resigna Fear par		IT/IS	Field Operations	24-11-1952	MA	Laborer	Male	2810	Black	Single	Fully Meets		2
18	3443	Kristen	Tate	05-Apr-21	12-May-23	Area Sal	Lauren Jones	kristen.tate@biler.com	WBL	Active	Full-Tim Zone C	Part-Tim	Volunat. Wall box		IT/IS	Project Management -	04-08-1994	KY	Coordinator	Male	2821	Asian	Widowed	Fully Meets		3
19	3444	Bobby	Rodgers	28-Nov-21	04-Feb-22	Area Sal	Matthew Jackson	bobby.roddgers@biler.com	NEL	Active	Contract Zone A	Part-Tim	Volunat. Visit foot		Sales	Engineers	15-11-1993	KY	Director	Male	44593	Other	Widowed	Fully Meets		3
20	3445	Reid	Park	16-Jan-21		Area Sal	Michelle Mitchell	reid.park@biler.com	PL	Active	Contract Zone C	Full-Tim	Unk		Sales	Project Management -	12-07-1995	KY	Supervisor	Female	5360	Other	Married	Exceeds		4
21	3446	Hector	Dalton	24-Aug-21		Area Sal	Sydney French	hector.dalton@biler.com	BPC	Active	Part-Tim Zone A	Part-Tim	Unk		Sales	Field Operations	05-01-1996	TX	Driller	Female	16325	White	Divorced	Exceeds		2
22	3447	Mariela	Schultz	26-May-20	18-Jun-23	Area Sal	Michelle Evans MD	mariela.schultz@biler.com	CCDR	Future S	Part-Tim Zone A	Part-Tim	Involunt. Unit pas		Sales	General - Con	17-02-1964	TX	Technician	Female	43481	Asian	Widowed	Fully Meets		3
23	3448	Angela	Molina	01-Oct-19	06-Nov-20	Area Sal	Patricia Cook	angela.molina@biler.com	SVG	Future S	Full-Tim Zone A	Tempor	Retireme List clas		Sales	Engineers	05-12-1958	TX	Specialist	Male	50765	Asian	Widowed	Fully Meets		3
24	3449	Gerald	Preston	10-May-23	27-May-23	Area Sal	Ashley Reeves	gerald.preston@biler.com	EW	Future S	Contract Zone B	Tempor	Involunt. Price th		Sales	General - Eng	18-09-1992	CO	Technician	Male	5168	Black	Single	Fully Meets		5
25	3450	Reilly	Moyer	01-Sep-20	04-Dec-22	Area Sal	Stanley Harvey	reilly.moyer@biler.com	MSC	Active	Contract Zone C	Tempor/Resigna	Cause rr		Sales	Field Operations	08-11-1994	CO	Operator	Male	11765	Other	Single	Fully Meets		2
26	3451	Carlee	French	18-Feb-21	11-Nov-22	Area Sal	Michael Bradshaw	carlee.french@biler.com	TNS	Active	Contract Zone C	Full-Tim	Volunat. Station c		Sales	General - Con	15-01-1968	CD	Technician	Male	71071	Other	Divorced	Exceeds		3
27	3452	Jaydon	Blackburn	08-Nov-22		Area Sal	Debbie Crosby	jaydon.blackburn@biler.com	PV2	Active	Part-Tim Zone A	Part-Tim	Unk		Sales	General - Con	01-07-1947	IN	Foreman	Male	1222	Black	Divorced	Exceeds		2
28	3453	Brigder	Carter	09-Jul-20		Area Sal	Elizabeth Taylor	brigder.carter@biler.com	WBL	Active	Contract Zone C	Full-Tim	Unk		Sales	Fielders	04-07-1982	MA	Engineer	Male	87065	White	Widowed	Fully Meets		3
29	3454	Leon	Beard	11-Sep-22		Area Sal	Brian Dunlap	leon.beard@biler.com	PV2	Active	Full-Tim Zone C	Full-Tim	Unk		IT/IS	General - Con	29-01-1970	KY	Foreman	Male	10415	Hispanic	Married	Needs Improveme		4
30	3455	Charly	Miranda	29-Jun-21	05-Jul-22	Area Sal	Daniel Rodriguez	charly.miranda@biler.com	WBL	Active	Full-Tim Zone A	Tempor	Resigna Pm local		Sales	Project Management -	18-01-1999	KY	Manager	Male	3763	Other	Widowed	Exceeds		4
31	3456	Axel	Howe	06-Mar-23		Area Sal	Martin Hammond	axel.howe@biler.com	NEL	Active	Full-Tim Zone C	Tempor	Unk		Sales	Field Operations	25-03-1946	KY	Technician	Female	79623	Black	Divorced	Fully Meets		3
32	3457	Milton	Wall	25-Sep-20		Area Sal	Sara Bell	milton.wall@biler.com	PL	Active	Full-Tim Zone B	Tempor	Unk		Sales	Engineers	23-08-1947	KY	Technician	Female	6989	White	Divorced	Needs Improveme		3
33	3458	Cory	Robinson	28-Apr-22	24-May-23	Area Sal	Elizabeth Anderson	cory.robinson@biler.com	BPC	Future S	Contract Zone A	Full-Tim	Volunat. Several		Sales	Field Operations	08-12-1996	TX	Laborer	Female	594	Hispanic	Single	Needs Improveme		3
34	3459	Sanjia	Yu	18-Apr-21	21-Jun-22	Area Sal	Erin Bailey	sanjia.yu@biler.com	CCDR	Future S	Part-Tim Zone A	Full-Tim	Retireme Science		Sales	General - Con	02-03-1944	TX	Splicer	Male	8779	Black	Widowed	Exceeds		2
35	3460	Alisa	James	19-Feb-20		Area Sal	Dennis Henderson	alisa.james@biler.com	SVG	Active	Full-Tim Zone A	Full-Tim	Unk		Sales	Aerial	02-10-1944	TX	Lineman	Male	74682	Asian	Married	Fully Meets		3
36	3461	Lincoln	Compton	18-Jul-19	01-Oct-21	Area Sal	Tammy Conner	lincoln.compton@biler.com	EW	Future S	Full-Tim Zone C	Part-Tim	Resigna Base so		Sales	General - Con	29-12-1997	CO	Foreman	Male	78046	Hispanic	Married	Needs Improveme		1
37	3462	Alana	Nolan	13-Sep-18	17-Sep-21	Area Sal	Brianna Matthews	alana.nolan@biler.com	MSC	Active	Contract Zone A	Full-Tim	Involunt. Yourself		Sales	Field Operations	08-09-1942	CD	Coordinator	Male	27270	Hispanic	Divorced	Needs Improveme		3
38	3463	Kayden	Dodson	30-Apr-20	19-Jul-21	Area Sal	Jessica Peters	kyden.dodson@biler.com	TNS	Active	Part-Tim Zone A	Tempor/Retireme	Paper cu		Sales	Field Operations	21-06-1951	IN	Tower Hand	Male	12703	Hispanic	Single	Fully Meets		1
39	3464	James	Duke	03-Dec-18	09-Sep-22	Area Sal	Mark Harris	james.duke@biler.com	PV2	Active	Contract Zone B	Full-Tim	Involunt. Suif of		Sales	Shop (Fleet)	17-06-1998	MA	Mechanic	Male	66536	Black	Widowed	Needs Improveme		5
40	3465	Willow	Stuart	08-Nov-21		Area Sal	Elizabeth Tapia	willow.stuart@biler.com	WBL	Active	Full-Tim Zone B	Full-Tim	Unk		Sales	General - Con	01-07-1962	MA	Flagger	Male	66160	Asian	Divorced	Needs Improveme		2
41	3466	Clayton	Walker	13-Apr-22	10-Apr-23	Area Sal	Jon Holden	clayton.walker@biler.com	PV2	Active	Part-Tim Zone A	Full-Tim	Retireme Sign figi		IT/IS	Aerial	26-01-1979	KY	Supervisor	Male	64288	Other	Married	Exceeds		4
42	3467	Celia	Curtis	06-May-20		Area Sal	Michael Odonnell	celia.curtis@biler.com	WBL	Active	Contract Zone A	Part-Tim	Unk		Sales	Fielders	14-05-1997	KY	Engineer	Female	94333	Asian	Divorced	Exceeds		1
43	3468	Valentin	Reilly	08-Sep-19		Area Sal	Andres Parker	valentin.reilly@biler.com	NEL	Active	Contract Zone B	Tempor	Unk		Sales	Wireline Construction	26-04-1998	KY	Foreman	Female	45453	Black	Single	Fully Meets		4
44	3469	Ryland	Shepherd	29-Jul-20	05-Jan-23	Area Sal	James Berry	ryland.shepherd@biler.com	PL	Future S	Contract Zone B	Part-Tim	Resigna Flight cu		Sales	Field Operations	21-02-1945	TX	Driver	Female	81905	Asian	Divorced	Needs Improveme		3
45	3470	Esteban	Gilbert	14-Nov-18	28-Oct-19	Area Sal	Gail Ali	esteban.gilbert@biler.com	BPC	Future S	Contract Zone C	Part-Tim	Retireme Speak p		Sales	Field Operations	31-05-1997	TX	Technician	Female	12491	Black	Married	Needs Improveme		3
46	3471	Jonathan	Adkins	29-Feb-20		Area Sal	John Marshall	jonathan.adkins@biler.com	CCDR	Active	Part-Tim Zone C	Tempor	Unk		Sales	Field Operations	01-03-1967	TX	Foreman	Male	64350	Asian	Married	Fully Meets		4
47	3472	Neveah	Soto	15-Jan-23		Area Sal	Jessica Chang	neveah.soto@biler.com	SVG	Active	Contract Zone C	Full-Tim	Unk		Sales	Project Management -	01-12-1982	TX	Director	Male	74124	Other	Married	Exceeds		4
48	3473	Ariely	Mata	29-Jun-23		Area Sal	Desiree Yang	ariely.mata@biler.com	EW	Active	Contract Zone A	Tempor	Unk		Sales	Shop (Fleet)	10-01-1960	CD	Manager	Male	33379	Hispanic	Widowed	Exceeds		2
49	3474	Ariely	Patton	09-Apr-20		Area Sal	Andrew Goodman	ariely.patton@biler.com	MSC	Active	Full-Tim Zone A	Tempor	Unk		Sales	General - Con	16-12-1965	CA	Laborer	Male	34461	Hispanic	Divorced	Fully Meets		4
50	3475	Vanessa	Trujillo	21-Sep-21	13-Apr-23	Area Sal	Rebecca Simpson	vanessa.trujillo@biler.com	TNS	Active	Full-Tim Zone C	Tempor/Resigna	Expert c		Sales	General - Con	25-12-1957	IN	Foreman	Male	90406	Asian	Widowed	Needs Improveme		2
51	3476	Charlie	Koch	12-Jun-23	06-Jul-23	Area Sal	Samantha Cardenas	charlie.koch@biler.com	PV2	Active	Part-Tim Zone A	Tempor	Volunat. Buy bec		Sales	Fielders	20-06-1945	MA	Engineer	Male	95774	Asian	Divorced	Needs Improveme		2
52	3477	Sonny	Home	07-Apr-19		Area Sal	Nancy Johnson	sonny.home@biler.com	PV2	Active	Part-Tim Zone A	Full-Tim	Unk		IT/IS	Aerial	12-03-1963	KY	Laborer	Female	16058	Asian	Widowed	Needs Improveme		2
53	3478	Thomas	Chandler	17-Sep-18	09-Jan-19	Area Sal	Richard Hodges	thomas.chandler@biler.com	WBL	Active	Full-Tim Zone A	Tempor/Resigna	Read far		Sales	Wireline Construction	10-10-1957	KY	Groundman	Female	45149	Hispanic	Married	Fully Meets		2
54	3479	Sarah	Stone	02-Aug-22	02-Apr-23	Area Sal	Madison Wilson	sarah.stone@biler.com	NEL	Active	Contract Zone A	Part-Tim	Involunt. Somebo		Sales	Project Management -	17-05-1962	TX	Technician	Female	96336	Hispanic	Widowed	Fully Meets		2
55	3480	Jeremiah	Hammon	08-Sep-22	16-Nov-22	Area Sal	Eric Kinn	jeremiah.hammon@biler.com	PL	Future S	Full-Tim Zone C	Tempor/Retireme	Visit un		Sales	Field	08-04-1948	TX								

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



Row Labels ▾	Average of Satisfaction Score
Female	3.01
Male	3.04

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."

	A	B	C	D	E	F	G	H	I	J	K	L
	Employee ID	FirstName	LastName	StartDate	ExitDate	Title	Supervisor	ADEmail	BusinessUnit	EmployeeStatus	EmployeeType	PayZone
39	3564	Susan	Lundy	26-Jan-19	02-Dec-20	Productio	Diana Joh	susar			Full-Time	Zone C
43	3568	Quinn	Rarrick	11-Jul-23	29-Jul-23	Productio	Susan Bro	quinn			Full-Time	Zone B
45	3570	Adrienne	Homberge	19-Apr-19	26-Oct-21	Productio	Brandon M	adrie			Full-Time	Zone B
46	3571	Marilyn	Linares	07-Jul-22	17-Jul-23	Productio	Dr. Matth	maril			Part-Time	Zone C
50	3575	George	Johnson	28-Apr-21	18-Jan-22	Productio	Amanda S	georg			Part-Time	Zone A
73	3598	Derick	Rocha	28-Sep-18	05-Aug-23	Productio	Alex Moo	deric			Part-Time	Zone A
77	3602	Helena	Davenport	11-Apr-21	24-May-23	Productio	Crystal M	heler			Full-Time	Zone B
78	3603	Houston	Aguirre	29-Nov-18	21-Feb-19	Productio	Christine	hous			Full-Time	Zone A
81	3606	Clarissa	Winters	01-Aug-19	20-Jan-23	Productio	Eric Gonz	claris			Part-Time	Zone C
00	3625	Gabriel	Dodson	11-Nov-21	31-Jul-22	Productio	Tammy N	gabrie			Contract	Zone B
02	3627	Ruth	Harrell	21-Aug-19	28-Oct-22	Productio	Jesse Wils	ruth			Contract	Zone C
04	3629	Reginald	Lowery	27-Aug-22	03-Dec-22	Productio	Dr. David	regina			Contract	Zone B
22	3647	Nathen	Arias	28-Dec-20	30-Jan-21	Productio	Craig Lebl	nathen			Part-Time	Zone A
25	3650	Amirah	Stanley	03-Oct-19	28-Feb-22	Productio	Jason Jen	amira			Full-Time	Zone B
27	3652	Owen	Dillon	30-Aug-19	27-Aug-22	Productio	Victoria M	owen			Part-Time	Zone C
28	3653	Bridget	Bray	04-Feb-21	30-Jul-23	Productio	William W	bride			Contract	Zone B
44	3669	Tyler	Hines	28-Mar-20	12-Mar-23	Productio	Joshua Fr	tyler			Contract	Zone A
46	3671	Simone	Hayes	26-Jan-23	19-Jun-23	Productio	Alexander	simo			Part-Time	Zone A
48	3673	Lane	Zuniga	11-Jun-22	10-Jan-23	Productio	Casey Mo	lane			Full-Time	Zone B
49	3674	Isabelle	Shields	25-Jun-20	02-Mar-22	Productio	Sarah Will	isabe			Part-Time	Zone C
69	3694	Nickolas	West	05-Nov-19	16-Apr-22	Productio	Sue Harpe	nickola			Full-Time	Zone A
70	3695	Cason	Neal	20-Sep-18	04-Feb-21	Productio	Savannah	cason			Contract	Zone C
71	3696	Aldo	Dyer	02-Sep-20	26-May-23	Productio	Chase Ra	aldo			Contract	Zone B
74	3699	Madelyn	Mcdonald	30-Aug-22	20-Sep-22	Productio	Justin Har	madelyn			Part-Time	Zone B
91	3716	Chaim	Chase	31-Jul-22	18-Feb-23	Productio	David Goc	chaim			Full-Time	Zone A
93	3718	Dalton	Frazier	25-May-21	22-Oct-21	Productio	Claudia W	dalton			Contract	Zone C
97	3722	Nehemiah	Hancock	16-Feb-20	09-Jan-22	Productio	Alice Key	nehemiah			Part-Time	Zone B
98	3723	Elliana	Villanueva	29-Apr-22	16-Jul-22	Productio	Ryan Dow	elliana			Full-Time	Zone A



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

Count of Employee ID	Column Labels		
Row Labels	Terminated for Cause	Voluntarily Terminated	Grand Total
Involuntary	21	86	107
Resignation	22	74	96
Retirement	10	76	86
Voluntary	13	85	98
Grand Total	66	321	387

#	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Employee ID	First Name	Last Name	Start Date	End Date	Title	Supervisor	AD Email	Business Unit	Employee Status	Employee Type	Pay Zone	Employee Classification	Termination Type
139	3564	Susan	Lundy	26-Jan-19	02-Dec-20	Productio	Diana Joh	susan.lundy@sv	SVG	Voluntarily Terminated	Full-Time	Zone C	Temporary	Resignation
143	3568	Quinn	Rarrick	11-Jul-23	29-Jul-23	Productio	Susan Bro	quinn.rarrick@ew	EW	Voluntarily Terminated	Full-Time	Zone B	Part-Time	Involuntary
145	3570	Adrienne	Homburge	19-Apr-19	26-Oct-21	Productio	Brandon Fad	rienne.jtns	JNS	Voluntarily Terminated	Full-Time	Zone B	Temporary	Voluntary
146	3571	Marlynn	Linares	07-Jul-22	17-Jul-23	Productio	Dr. Matth	marlynn.lin@nel	NEL	Voluntarily Terminated	Part-Time	Zone C	Full-Time	Resignation
150	3575	George	Johnson	28-Apr-21	18-Jan-23	Productio	Amanda S	george.john@msc	MSC	Voluntarily Terminated	Part-Time	Zone A	Temporary	Resignation
173	3598	Derick	Rocha	28-Sep-18	05-Aug-23	Productio	Alex Mool	derick.rocha@svg	SVG	Voluntarily Terminated	Part-Time	Zone A	Full-Time	Resignation
177	3602	Helena	Davenport	11-Apr-21	24-May-23	Productio	Crystal M	helena.davenport@ccdr	CCDR	Voluntarily Terminated	Full-Time	Zone B	Part-Time	Involuntary
178	3603	Houston	Aguirre	29-Nov-18	21-Feb-19	Productio	Christine	houston.aguirre@ew	EW	Voluntarily Terminated	Full-Time	Zone A	Part-Time	Resignation
181	3606	Clarissa	Winters	01-Aug-19	20-Jan-23	Productio	Eric Gonza	clarissa.winters@svg	SVG	Voluntarily Terminated	Part-Time	Zone C	Full-Time	Involuntary
200	3625	Gabriel	Dodson	11-Nov-21	31-Jul-22	Productio	Tammy N	gabriel.dodson@tns	TNS	Voluntarily Terminated	Contract	Zone B	Part-Time	Resignation
202	3627	Ruth	Harnell	21-Aug-19	28-Oct-22	Productio	Jesse Wilk	ruth.harnell@wbl	WBL	Voluntarily Terminated	Contract	Zone C	Full-Time	Resignation
204	3629	Reginald	Lowery	27-Aug-22	03-Dec-22	Productio	Dr. David	reginald.lowery@nel	NEL	Voluntarily Terminated	Contract	Zone B	Full-Time	Voluntary
222	3647	Nathen	Arias	28-Dec-20	30-Jan-21	Productio	Craig Lebl	nathen.arias@ew	EW	Voluntarily Terminated	Part-Time	Zone A	Part-Time	Involuntary
225	3650	Amirah	Stanley	03-Oct-19	28-Feb-22	Productio	Jason Jenl	amirah.stanley@pyz	PYZ	Voluntarily Terminated	Full-Time	Zone B	Part-Time	Retirement
227	3652	Owen	Dillon	30-Aug-19	27-Aug-22	Productio	Victoria M	owen.dillon@nel	NEL	Voluntarily Terminated	Part-Time	Zone C	Part-Time	Resignation
228	3653	Bridget	Bray	04-Feb-21	30-Jul-23	Productio	William X	bridget.bray@pl	PL	Voluntarily Terminated	Contract	Zone B	Part-Time	Voluntary
244	3669	Tyler	Hines	28-Mar-20	12-Mar-23	Productio	Joshua F	tyler.hines@ccdr	CCDR	Voluntarily Terminated	Contract	Zone A	Temporary	Retirement
246	3671	Simone	Hayes	26-Jan-23	19-Jun-23	Productio	Alexander	simone.hayes@ew	EW	Voluntarily Terminated	Part-Time	Zone A	Temporary	Involuntary
248	3673	Lane	Zuniga	11-Jun-22	10-Jan-23	Productio	Casey Mo	lane.zuniga@tns	TNS	Voluntarily Terminated	Part-Time	Zone B	Temporary	Voluntary
249	3674	Isabelle	Shields	25-Jun-20	02-Mar-22	Productio	Sarah Will	isabelle.shields@bpc	BPC	Voluntarily Terminated	Part-Time	Zone C	Part-Time	Voluntary
269	3694	Nickolas	West	05-Nov-19	16-Apr-22	Productio	Sue Harpe	nickolas.west@ew	EW	Voluntarily Terminated	Full-Time	Zone A	Part-Time	Involuntary
270	3695	Cason	Neal	20-Sep-18	04-Feb-21	Productio	Savannah	cason.neal@msc	MSC	Voluntarily Terminated	Contract	Zone C	Temporary	Voluntary
271	3696	Aldo	Oyer	02-Sep-20	26-May-23	Productio	Chase R	aldo.oyer@tns	TNS	Voluntarily Terminated	Contract	Zone B	Part-Time	Resignation
274	3699	Madelyn	McDonald	30-Aug-22	20-Sep-23	Productio	Justin Har	madelyn.mcdonald@pyz	PYZ	Voluntarily Terminated	Part-Time	Zone B	Temporary	Involuntary
291	3716	Chaim	Chase	31-Jul-22	18-Feb-23	Productio	David Goc	chaim.chase@svg	SVG	Voluntarily Terminated	Full-Time	Zone A	Full-Time	Voluntary
293	3718	Dalton	Frazier	25-May-21	22-Oct-21	Productio	Claudia W	dalton.frazier@msc	MSC	Voluntarily Terminated	Contract	Zone C	Temporary	Voluntary
297	3722	Nehemiah	Hancock	16-Feb-20	09-Jan-22	Productio	Alice Key	nehemiah.hancock@pl	PL	Voluntarily Terminated	Part-Time	Zone B	Full-Time	Involuntary
298	3723	Elliana	Villanueva	29-Apr-22	16-Jul-22	Productio	Ryan Dow	elliana.villanueva@bpc	BPC	Voluntarily Terminated	Full-Time	Zone A	Temporary	Retirement

- Involuntary Termination is the most common termination type.



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



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

	A	B	C	D	E	F	G	H	I
1	Employee	FirstName	LastName	StartDate	ExitDate	Title	Supervisor	Supervisor Email	ADEmail
2	3427	Uriah	Bridges	20-Sep-19		Productio	Peter Oneill	jonathanthompson@example.com	uriah.bridges@bilearner.com
3	3428	Paula	Small	11-Feb-23		Productio	Renee Mccormick	alysa68@example.com	paula.small@bilearner.com
4	3429	Edward	Buck	10-Dec-18		Area Sales	Crystal Walker		
5	3430	Michael	Riordan	21-Jun-21		Area Sales	Rebekah Wright	=VLOOKUP(A5, supervisorinfo!A:R, 8, TRUE)	
6	3431	Jasmine	Onque	29-Jun-19		Area Sales	Jason Kim	=VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup]) @bilearner.com	
7	3432	Maruk	Fraval	17-Jan-20		Area Sales	Sheri Campos	jose64@example.net	maruk.fraval@bilearner.com
8	3433	Latia	Costa	06-Apr-22	03-Jul-23	Area Sales	Jacob Braun	baileychristina@example.net	latia.costa@bilearner.com
9	3434	Sharlene	Terry	06-Nov-20	29-Jan-23	Area Sales	Tracy Marquez	wanda90@example.com	sharlene.terry@bilearner.com
10	3435	Jac	McKinzie	18-Aug-18		Area Sales	Sharon Becker	cunninghamdave@example.net	jac.mckinzie@bilearner.com
11	3436	Joseph	Martins	21-Jan-22	29-Jun-23	Area Sales	George Jenkins	terrywaller@example.com	joseph.martins@bilearner.com
12	3437	Myriam	Givens	04-Aug-23		Area Sales	Troy White	waltersbobby@example.org	myriam.givens@bilearner.com
13	3438	Dheepa	Nguyen	10-Aug-18	04-Nov-19	Area Sales	Brian Miller	mullinswilliam@example.com	dheepa.nguyen@bilearner.com
14	3439	Bartholem	Khemmid	25-May-22	27-Nov-22	Area Sales	Charles Parks	clarkerin@example.org	bartholemew.khemmich@bilearner.com
15	3440	Xana	Potts	05-Dec-19	17-Feb-23	Area Sales	Gregory Walker	floydbenjamin@example.net	xana.potts@bilearner.com
16	3441	Prater	Jeremy	28-Apr-19		Area Sales	Tyler Lewis	mcdowelljoseph@example.com	prater.jeremy@bilearner.com
17	3442	Kaylah	Moon	09-Jul-19	16-Jun-22	Area Sales	Ashley Scott	bbates@example.com	kaylah.moon@bilearner.com
18	3443	Kristen	Tate	05-Apr-21	12-May-23	Area Sales	Lauren Jones	tracysimpson@example.com	kristen.tate@bilearner.com
19	3444	Bobby	Rodgers	28-Nov-21	04-Feb-22	Area Sales	Matthew Jackson	estessherry@example.org	bobby.rogers@bilearner.com
20	3445	Reid	Park	16-Jan-21		Area Sales	Michelle Mitchell	andrewyoung@example.net	reid.park@bilearner.com
21	3446	Hector	Dalton	24-Aug-21		Area Sales	Sydney French	aliciaheath@example.org	hector.dalton@bilearner.com
22	3447	Mariela	Schultz	26-May-20	18-Jun-23	Area Sales	Michelle Evans MD	griffithrobert@example.net	mariela.schultz@bilearner.com
23	3448	Angela	Molina	01-Oct-19	06-Nov-20	Area Sales	Patricia Cook	jeffrey14@example.net	angela.molina@bilearner.com
24	3449	Gerald	Preston	10-May-23	27-May-23	Area Sales	Ashley Reeves	kirstengutierrez@example.net	gerald.preston@bilearner.com
25	3450	Reilly	Moyer	01-Sep-20	04-Dec-22	Area Sales	Stanley Harvey	heatherkemp@example.org	reilly.moyer@bilearner.com
26	3451	Carlee	French	18-Feb-21	11-Nov-22	Area Sales	Michael Bradshaw	nealtaylor@example.org	carlee.french@bilearner.com
27	3452	Javdon	Blackburn	08-Nov-22		Area Sales	Debbie Crosbv	whitetanva@examole.org	iavdon.blackburn@bilearner.com



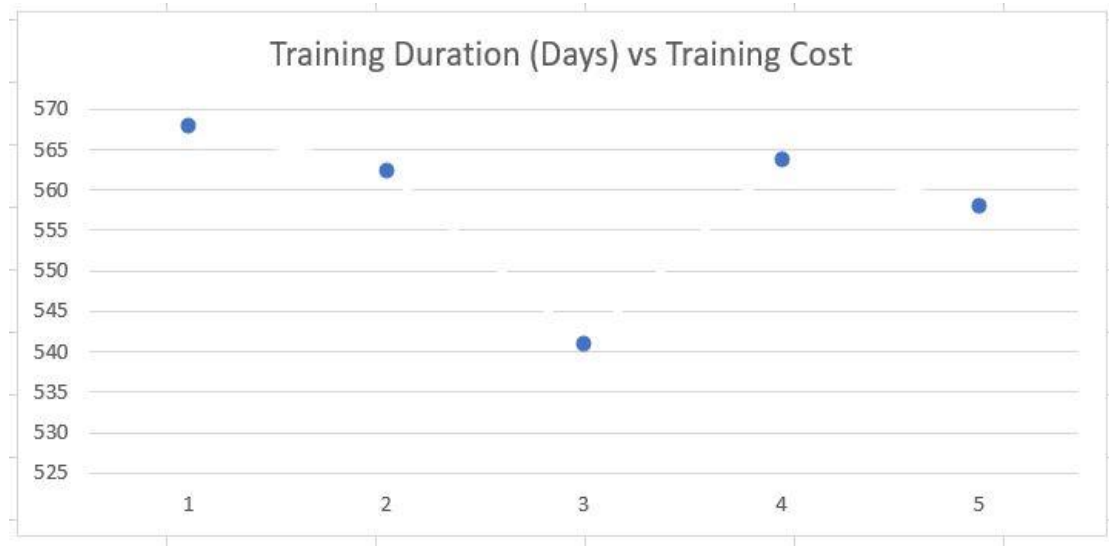
8. Can you identify the department with the highest average "Employee Rating?"

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

- Admin Offices have the highest average "Employee Rating"



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
Asian		346	283
Black		346	272
Hispanic		325	247
Other		318	264
White		347	252



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

Employee ID	Training Program Name
1005	=INDEX(C:C, MATCH(K4, A:A, 0))

Employee ID	Training Program Name
1005	Communication Skills

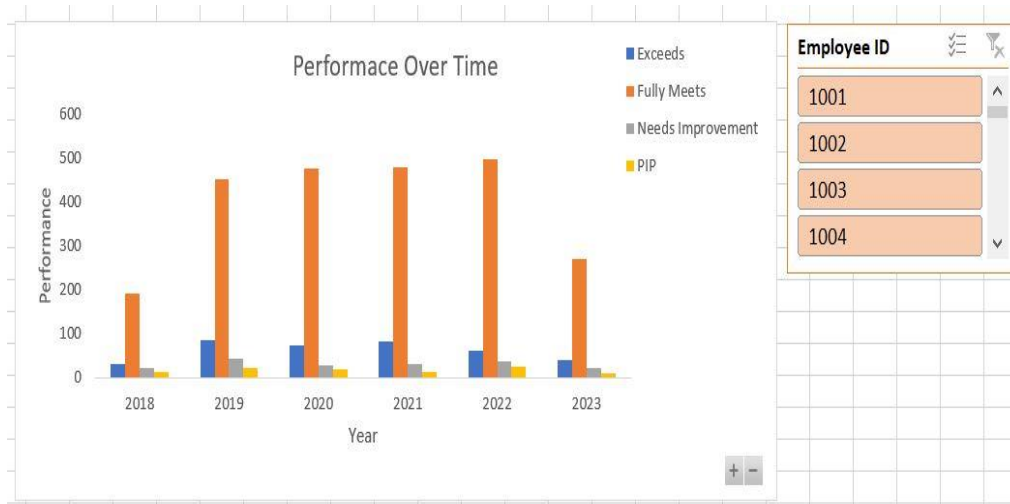


12. Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

Row Labels	Count of Performance Score
BPC	303
CCDR	300
EW	302
Administration	1
Administrative	7
Administrator	2
Apprentice	1
Assistant	3
Billing	2
Clerical	1
Clerk	5
Construction Manager	1
Controller	1
Coordinator	14
Director	2
Drafter	2
Driller	2
Driver	3
Engineer	41
Evp	1
Executive Assistant	1
Field Technician	1
Flagger	3
Foreman	28
Groundman	8
Helper	1
Intern	2
Labor	1



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.

Row Labels	Sum of Training Cost
Communication Skills	365023.24
Customer Service	320575.04
Leadership Development	323902.03
Project Management	343313.17
Technical Skills	323072.61



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

Location	RaceDe	Marital	Performance Score	Current Employee Rating
34904	White	Widowed	Fully Meets	4
6593	Hispanic	Widowed	Fully Meets	3
2330	Hispanic	Widowed	Fully Meets	4
58782	Other	Single	Fully Meets	2
33174	Other	Married	Fully Meets	3
6050	Black	Married	Fully Meets	3
90007	Hispanic	Divorced	Exceeds	4
97756	White	Divorced	Fully Meets	2
78789	Black	Widowed	Exceeds	3
78207	Asian	Widowed	Fully Meets	5
46204	Other	Single	Fully Meets	5
30428	Asian	Married	Fully Meets	3
80820	Other	Single	Fully Meets	3
40220	White	Divorced	Fully Meets	3
89139	Asian	Widowed	Exceeds	4
2810	Black	Single	Exceeds	2
2621	Asian	Widowed	Fully Meets	3
44553	Other	Widowed	Fully Meets	3
5360	Other	Married	Exceeds	4
16325	White	Divorced	Exceeds	2
43481	Asian	Widowed	Fully Meets	3
50705	Asian	Widowed	Fully Meets	3
5168	Black	Single	Fully Meets	5
11765	Other	Single	Exceeds	2
71071	Other	Divorced	Exceeds	3
12122	Black	Divorced	Fully Meets	2



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

Row Labels ▾	Average of Engagement Score
2018	2.898
2019	3.065
2020	2.939
2021	2.888
2022	2.944
2023	2.833



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

Microsoft Visual Basic for Applications - employee_data_solution.xlsx

File Edit View Insert Format Debug Run Tools Add-Ins Window Help

Ln 16, Col 1

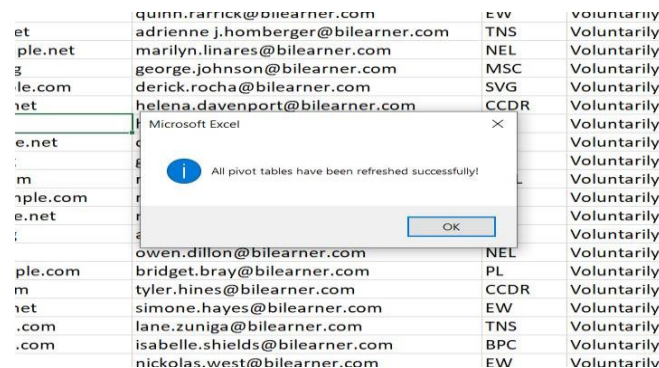
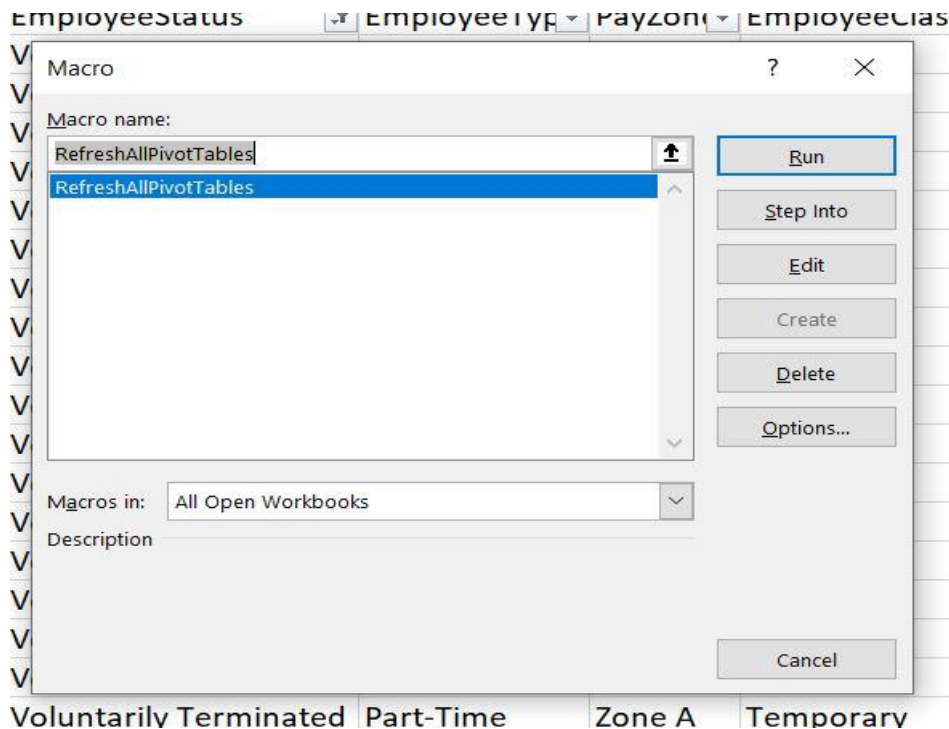
employee_data_solution.xlsx - Module1 (Code)

RefreshAllPivotTables

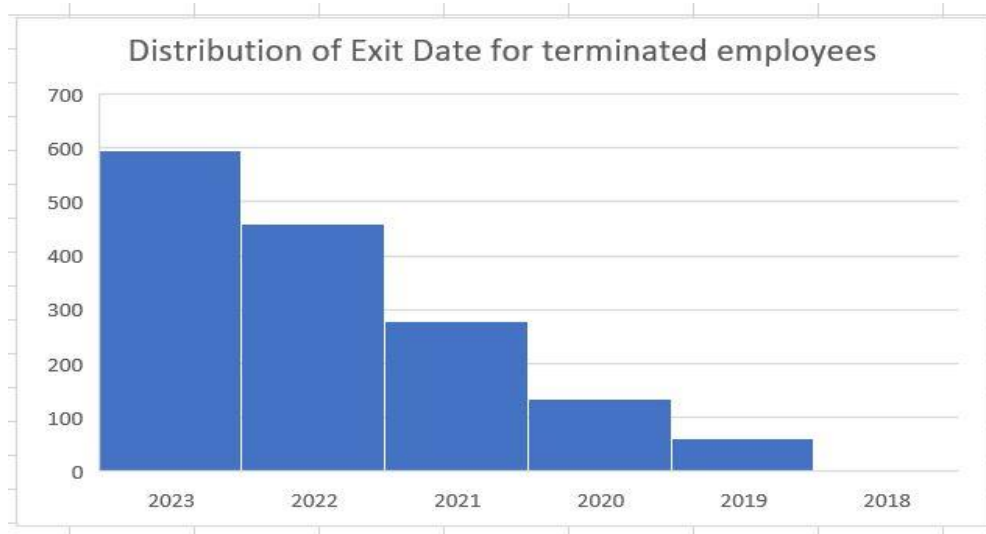
```
Sub RefreshAllPivotTables()  
    Dim pt As PivotTable  
    Dim ws As Worksheet  
  
    ' Loop through each worksheet in the workbook  
    For Each ws In ThisWorkbook.Worksheets  
        ' Loop through each pivot table in the worksheet  
        For Each pt In ws.PivotTables  
            ' Refresh the pivot table  
            pt.RefreshTable  
        Next pt  
    Next ws  
  
    MsgBox "All pivot tables have been refreshed successfully!", vbInformation  
End Sub
```



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



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.

Total Training Cost (Port Greg)		
=SUMPRODUCT((F2:F3001 = "Port Greg") * (I2:I3001))		
<small>SUMPRODUCT(array1, [array2], [array3], ...)</small>		

Total Training Cost (Port Greg)
510.83



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

PSYLIQ

Employee Dashboard

Total Employees
3000

Total Training Cost
₹ 16,75,886.09

Active Employees
2458

Average Employee Rating
2.969

Gender

Female

Male

Location

Aaronborough

Aaronburgh

Aaronstad

Training Type

External

Internal

Race

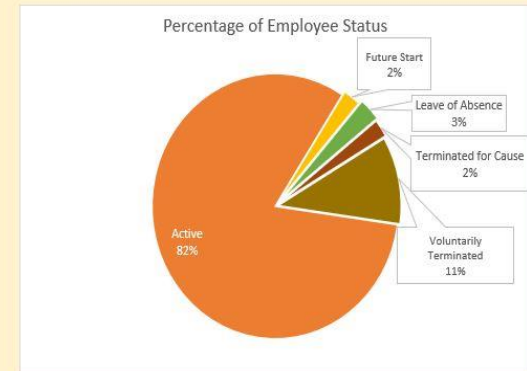
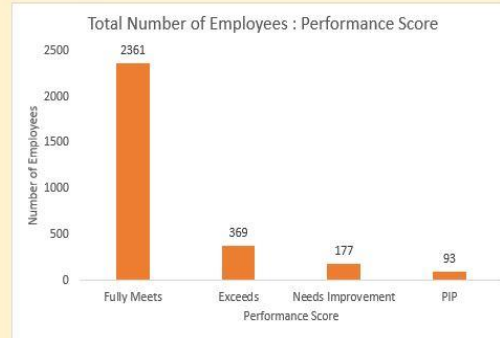
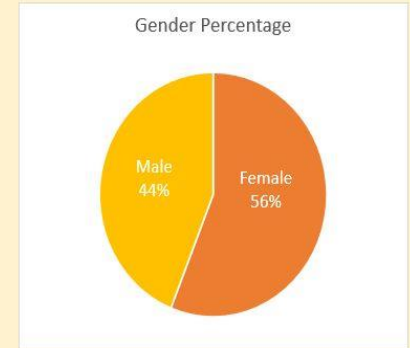
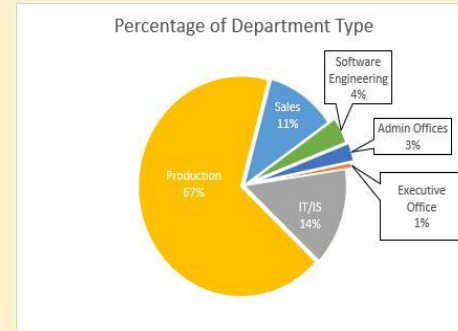
Asian

Black

Hispanic

Other

White



Thank You

PSYLIQ

