

PROJECT SQL 1

This is an IT HR company who wants to know,
1- How many employee have left the company?,
2- How long they have worked, their position, salary and performance?,
3- What was their reason of leaving?

MAIN TABLE

```
SELECT * FROM HRData h ; ;
```

SUB TABLES

```
SELECT * FROM Empl_details ed;
```

```
SELECT * FROM empl_names en;
```

```
SELECT * FROM Departments d;
```

To get the informations needed it for this analysis, I'll first create a table view from the main table HRData

In a case of multiple tables query. I would perform a join strategy to create a view as follow below:

Let's first DROP the create view to use the same view name.

```
DROP VIEW R_of_Leaving;;
```

```
CREATE VIEW R_of_Leaving AS
```

```
select Employee_Name,Gender ,Salary,DOB,[Position],
```

```
Dateofhire,RaceDesc,MaritalDesc,DateofTermination,TermReason,Performance
```

```
Score ,Absences from Empl_details ed
```

```
LEFT join empl_names en ON ed.EmpID = en.EmpID
```

```
LEFT JOIN Departments d on en.EmpID = d.EmpID ;
```

Success!

```
SELECT * from R_of_Leaving;
```

	Employee_Name	Gender	Salary	DOB	Position	Dateofhire	RaceDesc	MaritalDesc	DateofTermination	TermReason	Performance	Absences
1	Adinolfi, Wilson K	M	62,506	07/10/83	Production Technician I	7/5/2011	White	Single		N/A-StillEmployed	Exceeds	1
2	Ait Sidi, Karthikeyan	M	104,437	05/05/75	Sr. DBA	3/30/2015	White	Married	6/16/2016	career change	Fully Meets	17
3	Akinkuolie, Sarah	F	64,955	09/19/88	Production Technician II	7/5/2011	White	Married	9/24/2012	hours	Fully Meets	3
4	Alagbe,Trina	F	64,991	09/27/88	Production Technician I	1/7/2008	White	Married		N/A-StillEmployed	Fully Meets	15
5	Anderson, Carol	F	50,825	09/08/89	Production Technician I	7/11/2011	White	Divorced	9/6/2016	return to school	Fully Meets	2
6	Anderson, Linda	F	57,568	05/22/77	Production Technician I	1/9/2012	White	Single		N/A-StillEmployed	Exceeds	15
7	Andreola, Colby	F	95,660	05/24/79	Software Engineer	11/10/2014	White	Single		N/A-StillEmployed	Fully Meets	19
8	Athwal, Sam	M	59,365	02/18/83	Production Technician I	9/30/2013	White	Widowed		N/A-StillEmployed	Fully Meets	19
9	Bachiochi, Linda	F	47,837	02/11/70	Production Technician I	7/6/2009	Black or Africa	Single		N/A-StillEmployed	Fully Meets	4
10	Bacong, Alejandro	M	50,178	01/07/88	IT Support	1/5/2015	White	Divorced		N/A-StillEmployed	Fully Meets	16
11	Baczinski, Rachael	F	54,670	01/12/74	Production Technician I	1/10/2011	Black or Africa	Married	1/12/2017	Another position	Fully Meets	12
12	Barbara, Thomas	M	47,211	02/21/74	Production Technician I	4/2/2012	Black or Africa	Married	9/19/2016	unhappy	Fully Meets	15
13	Barbossa, Hector	M	92,328	07/04/88	Data Analvt	11/10/2014	Black or Africa	Divorced		N/A-StillEmployed	Exceeds	9

Getting rid of all duplicates and checking whether we haven't lost any data.

```
SELECT DISTINCT(count(*)) from R_of_Leaving rol
```

123	
1	313

1 - Question

How many employee have left the company?

```
SELECT count(*) from R_of_Leaving
WHERE dateoftermination != '';
```

123	104
1	

2 - Question

What was their main reason of leaving the company?

```
SELECT COUNT(TermReason) as
Num_of_employee,TermReason FROM
R_of_Leaving
WHERE TermReason != 'N/A-
StillEmployed'
group by TermReason
ORDER By Num_of_employee DESC ;
```

	123 Num_of_employee	ABC TermReason
1	20	Another position
2	14	unhappy
3	11	more money
4	9	career change
5	8	hours
6	7	attendance
7	5	relocation out of area
8	5	return to school
9	4	military
10	4	retiring
11	4	no-call, no-show
12	4	performance
13	3	maternity leave - did not return
14	3	medical issues
15	1	Learned that he is a gangster
16	1	Fatal attraction
17	1	gross misconduct

By exploring the 104 Reason of Terminations, 20 have left for a **better** position or **paid** elsewhere which is common BUT 14 have left **"Unhappy"**. Let's get to know more about those 14.

```
SELECT
Employee_Name,Gender ,Salary FROM
R_of_Leaving
WHERE TermReason = 'unhappy';
```

	ABC Employee_Name	ABC Gender	123 Salary
1	Barbara, Thomas	M	47,211
2	Cloninger, Jennifer	F	64,066
3	DeGweck, James	M	55,722
4	Huynh, Ming	F	68,182
5	Immediato, Walter	M	83,082
6	Jung, Judy	F	61,154
7	Linares, Marilyn	F	52,624
8	Miller, Ned	M	55,800
9	Oliver, Brooke	F	71,966
10	Pelletier, Ermine	F	60,270
11	Purinton, Janine	F	46,430
12	Squatrito, Kristen	F	62,425
13	Trzeciak, Cybil	F	74,813
14	Wilber, Barry	M	55,140

3 – Questions

How long they worked for?

How was their PerformanceScore and at what age they've left?

```
SELECT Employee_name, [POSITION] ,Salary, PerformanceScore,Absences
,DATEDIFF(YEAR , dateofhire, dateoftermination) AS Years_Employed
,DATEDIFF(YEAR,D0B,dateoftermination) AS Age
from R_of_Leaving
WHERE TermReason = 'unhappy'
ORDER by salary DESC ;
```

	ABC Employee_name	ABC POSITION	123 Salary	ABC PerformanceScore	123 Absences	123 Years_Employed	123 Age
1	Immediato, Walter	Production Manager	83,082	Needs Improvement	4	1	36
2	Trzeciak, Cybil	Production Technician II	74,813	Fully Meets	5	3	29
3	Oliver, Brooke	Production Technician II	71,966	Fully Meets	17	1	61
4	Huynh, Ming	Production Technician II	68,182	Fully Meets	18	2	37
5	Cloninger, Jennifer	Production Technician II	64,066	Fully Meets	9	2	32
6	Squatrito, Kristen	Production Technician I	62,425	Exceeds	16	2	42
7	Jung, Judy	Production Technician I	61,154	Fully Meets	4	5	30
8	Pelletier, Ermine	Production Technician II	60,270	Needs Improvement	2	4	26
9	Miller, Ned	Production Technician II	55,800	PIP	6	3	29
10	DeGweck, James	Production Technician I	55,722	Fully Meets	14	5	39
11	Wilber, Barry	Production Technician I	55,140	Fully Meets	7	4	50
12	Linares, Marilyn	Production Technician I	52,624	Fully Meets	16	7	37
13	Barbara, Thomas	Production Technician I	47,211	Fully Meets	15	4	42
14	Purinton, Janine	Production Technician I	46,430	Fully Meets	16	1	43

Let'd get rid of those who didn't meet their PerformanceScore.

```
SELECT Employee_name, [POSITION] ,Salary, PerformanceScore,Absences
,DATEDIFF(YEAR , dateofhire, dateoftermination) AS Years_Employed
,DATEDIFF(YEAR,D0B,dateoftermination) AS Age
from R_of_Leaving
WHERE TermReason = 'unhappy'
and PerformanceScore = 'Fully Meets'
ORDER by salary DESC ;
```

	ABC Employee_name	ABC POSITION	123 Salary	ABC PerformanceScore	123 Absences	123 Years_Employed	123 Age
1	Trzeciak, Cybil	Production Technician II	74,813	Fully Meets	5	3	29
2	Oliver, Brooke	Production Technician II	71,966	Fully Meets	17	1	61
3	Huynh, Ming	Production Technician II	68,182	Fully Meets	18	2	37
4	Cloninger, Jennifer	Production Technician II	64,066	Fully Meets	9	2	32
5	Jung, Judy	Production Technician I	61,154	Fully Meets	4	5	30
6	DeGweck, James	Production Technician I	55,722	Fully Meets	14	5	39
7	Wilber, Barry	Production Technician I	55,140	Fully Meets	7	4	50
8	Linares, Marilyn	Production Technician I	52,624	Fully Meets	16	7	37
9	Barbara, Thomas	Production Technician I	47,211	Fully Meets	15	4	42
10	Purinton, Janine	Production Technician I	46,430	Fully Meets	16	1	43

Let's look at those whose salary above 60.000.

```
SELECT Employee_name, [POSITION] ,Salary, PerformanceScore,Absences
,DATEDIFF(YEAR , dateofhire, dateoftermination) AS Years_Employed
,DATEDIFF(YEAR,D0B,dateoftermination) AS Age
from R_of_Leaving
WHERE TermReason = 'unhappy'
and PerformanceScore = 'Fully Meets'
and Salary > 60000
ORDER by salary DESC ;
```

	ABC Employee_name	ABC POSITION	123 Salary	ABC PerformanceScore	123 Absences	123 Years_Employed	123 Age
1	Trzeciak, Cybil	Production Technician II	74,813	Fully Meets	5	3	29
2	Oliver, Brooke	Production Technician II	71,966	Fully Meets	17	1	61
3	Huynh, Ming	Production Technician II	68,182	Fully Meets	18	2	37
4	Cloninger, Jennifer	Production Technician II	64,066	Fully Meets	9	2	32
5	Jung, Judy	Production Technician I	61,154	Fully Meets	4	5	30

Let's narrow more the data by those with less Absences.

```
SELECT Employee_name, [POSITION] ,Salary, PerformanceScore,Absences
,DATEDIFF(YEAR , dateofhire, dateaftertermination) AS Years_Employed
,DATEDIFF(YEAR,DOB,dateaftertermination) AS Age
from R_of_Leaving
WHERE TermReason = 'unhappy'
and PerformanceScore = 'Fully Meets'
and Salary > 60000
and Absences < 10
ORDER by salary DESC ;
```

	ABC Employee_name	ABC POSITION	123 Salary	ABC PerformanceScore	123 Absences	123 Years_Employed	123 Age
1	Trzeciak, Cybil	Production Technician II	74,813	Fully Meets	5	3	29
2	Cloninger, Jennifer	Production Technician II	64,066	Fully Meets	9	2	32
3	Jung, Judy	Production Technician I	61,154	Fully Meets	4	5	30

After narrowing my result, only 3 employees found unhappy but have worked longer with lesser absences and high salary. Lets get to know more and dig a bit deeper about these 3.

```
SELECT Employee_name, Sex, Salary , MaritalDesc ,ManagerName ,RaceDesc
,DATEDIFF(YEAR , dateofhire, dateaftertermination) AS Years_Employed
,DATEDIFF(YEAR,DOB,dateaftertermination) AS Age
from HRData h
WHERE TermReason = 'unhappy'
and PerformanceScore = 'Fully Meets'
and Salary > 60000
and Absences < 10
ORDER by salary DESC ;
```

Ctrl+click to open SQL console		BC Sex	123 Salary	ABC MaritalDesc	ABC ManagerName	ABC RaceDesc	123 Years_Employed	123 Age
1	Trzeciak, Cybil	F	74,813	Single	Amy Dunn	White	3	29
2	Cloninger, Jennifer	F	64,066	Married	Brannon Miller	White	2	32
3	Jung, Judy	F	61,154	Married	Elijah Gray	Black or African American	5	30

Conclusion:

There are many reason you can leave a job with an average salary of 69.000 but been "unhappy" should treated it seriously.

On my finding out of the 104 employees have left for a various reason. There were 14 who left 'unhappy', out of those 14 , 3 were high paid female, fully meet their PerformanceScore, worked 10 years between them and aged between 29–32 with 18 days of Absences between them during their period of employment.

If I was part of this hr company, I would have contacted them to get more information then discuss with their reporting manager to avoid such a loss.

