

Project Name	Corporate Employee Attrition Analytics
TeamId	PNT2022TMID20674

## UNDERSTANDING THE DATASET

This project is based on an understanding of the factors to keep employees at the Company and which prompt others to leave. The data can be downloaded from the [Dataset](#) : We need to use only (3 files - General\_data.csv, Employee\_Survey\_Data.csv, Manager\_Survey\_data.csv) for the current project.

Let us try to understand each field of the data (general\_data.csv)

Below are the values each column has. The column names are pretty self-explanatory.

1. AGE Numerical Value
2. ATTRITION Employee leaving the company (0=no, 1=yes)
3. BUSINESS TRAVEL (1=No Travel, 2=Travel Frequently, 3=Travel Rarely)
4. DEPARTMENT (1=HR, 2=R&D, 3=Sales)
5. DISTANCE FROM HOME Numerical Value - THE DISTANCE FROM WORK TO HOME
6. EDUCATION Numerical Value. (1 'Below College' 2 'College' 3 'Bachelor' 4 'Master' 5 'Doctor')
7. EDUCATION FIELD (1=HR, 2=LIFE SCIENCES, 3=MARKETING, 4=MEDICAL SCIENCES, 5=OTHERS, 6=TECHNICAL)
8. EMPLOYEE COUNT Numerical Value
9. EMPLOYEE ID Numerical Value
10. GENDER (1=FEMALE, 2=MALE)
11. JOB LEVEL Numerical Value
12. JOB ROLE (1=HR REP, 2=HR, 3=LAB TECHNICIAN, 4=MANAGER, 5= MANAGING DIRECTOR, 6= RESEARCH DIRECTOR, 7= RESEARCH SCIENTIST, 8=SALES EXECUTIVE, 9= SALES REPRESENTATIVE)
13. MARITAL STATUS (1=DIVORCED, 2=MARRIED, 3=SINGLE)
14. MONTHLY INCOME Numerical Value - MONTHLY SALARY
15. NUMCOMPANIES WORKED Numerical Value - NO. OF COMPANIES WORKED AT
16. OVER 18 (1=YES, 2=NO)
17. PERCENT SALARY HIKE Numerical Value - PERCENTAGE INCREASE IN SALARY
18. STANDARD HOURS Numerical Value - STANDARD HOURS
19. STOCK OPTIONS LEVEL Numerical Value - STOCK OPTIONS (Higher the number, the more stock option an employee has)
20. TOTAL WORKING YEARS Numerical Value - TOTAL YEARS WORKED
21. TRAINING TIMES LAST YEAR Numerical Value - HOURS SPENT TRAINING
22. YEARS AT COMPANY Numerical Value - TOTAL NUMBER OF YEARS

AT THE COMPANY

23. YEARS SINCE LAST PROMOTION Numerical Value - LAST PROMOTION

24. YEARS WITH CURRENT MANAGER Numerical Value - YEARS  
SPENT WITH CURRENT MANAGER

Kaggle.com/datasets/vjchoudhary7/hr-analytics-case-study?select=general\_data.csv

**HR Analytics Case Study**

Data Code (62) Discussion (5) 272 New Notebook Download (11 MB)

**About this file**

This file contains general data about employees

# Age Attrition BusinessTravel Department # D

18 60 1

51 No Travel\_Rarely Sales 6

31 Yes Travel\_Frequently Research & Development 10

32 No Travel\_Frequently Research & Development 17

38 No Non-Travel Research & Development 2

32 No Travel\_Rarely Research & Development 10

46 No Travel\_Rarely Research & Development 8

general\_data.csv  
in\_time.csv  
manager\_survey\_data.csv  
out\_time.csv

drive.google.com/file/d/1de0celz22\_dOwyqTnc7pFGQOkN0VhKkN/view

general\_data.csv

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Age	Attrition	BusinessTravel	Department	DistanceFromHome	Education	EducationField	EmployeeCount	EmployeeID	Gender	JobLevel	JobRole	MaritalStatus
1	51	No	Travel_Rarely	Sales	6	2	Life Sciences	1	1	Female	1	Healthcare Repres	Married
2	31	Yes	Travel_Frequently	Research & Development	10	1	Life Sciences	1	2	Female	1	Research Scientist	Single
3	32	No	Travel_Frequently	Research & Development	17	4	Other	1	3	Male	4	Sales Executive	Married
4	38	No	Non-Travel	Research & Development	2	5	Life Sciences	1	4	Male	3	Human Resources	Married
5	32	No	Travel_Rarely	Research & Development	10	1	Medical	1	5	Male	1	Sales Executive	Single
6	46	No	Travel_Rarely	Research & Development	8	3	Life Sciences	1	6	Female	4	Research Director	Married
7	28	Yes	Travel_Rarely	Research & Development	11	2	Medical	1	7	Male	2	Sales Executive	Single
8	29	No	Travel_Rarely	Research & Development	18	3	Life Sciences	1	8	Male	2	Sales Executive	Married
9	31	No	Travel_Rarely	Research & Development	1	3	Life Sciences	1	9	Male	3	Laboratory Technici	Married
10	25	No	Non-Travel	Research & Development	7	4	Medical	1	10	Female	4	Laboratory Technici	Divorced
11	45	No	Travel_Rarely	Research & Development	17	2	Medical	1	11	Male	2	Laboratory Technici	Married
12	36	No	Travel_Rarely	Research & Development	28	1	Life Sciences	1	12	Male	1	Laboratory Technici	Married
13	55	No	Travel_Rarely	Research & Development	14	4	Life Sciences	1	13	Female	1	Sales Executive	Single
14	47	Yes	Non-Travel	Research & Development	1	1	Medical	1	14	Male	1	Research Scientist	Married
15	28	No	Travel_Rarely	Research & Development	1	3	Life Sciences	1	15	Male	1	Manufacturing Direc	Married
16	37	No	Travel_Rarely	Research & Development	1	3	Life Sciences	1	16	Male	2	Healthcare Repres	Married
17	21	No	Travel_Rarely	Research & Development	3	2	Life Sciences	1	17	Male	1	Laboratory Technici	Single
18	37	No	Non-Travel	Research & Development	1	3	Medical	1	18	Male	2	Sales Executive	Divorced
19	35	No	Travel_Rarely	Sales	7	4	Life Sciences	1	19	Male	1	Sales Representative	Divorced
20	38	No	Travel_Rarely	Research & Development	8	3	Life Sciences	1	20	Female	1	Manager	Divorced
21	26	No	Travel_Frequently	Research & Development	1	4	Other	1	21	Male	2	Laboratory Technici	Divorced
22	50	No	Travel_Rarely	Sales	8	4	Life Sciences	1	22	Male	1	Research Scientist	Divorced
23	53	No	Travel_Rarely	Research & Development	11	4	Life Sciences	1	23	Female	2	Research Scientist	Married
24	42	No	Travel_Rarely	Research & Development	4	4	Life Sciences	1	24	Male	1	Manufacturing Direc	Married
25	29	No	Travel_Frequently	Research & Development	16	4	Other	1	25	Male	1	Laboratory Technici	Single
26	55	No	Travel_Rarely	Research & Development	1	4	Other	1	26	Female	1	Research Scientist	Married

- b. Let us try to understand about each field of the data (employee\_survey\_data.csv)
1. Employee ID
  2. Environment Satisfaction (1 'Low' 2 'Medium' 3 'High' 4 'Very High')
  3. Job Satisfaction (1 'Low' 2 'Medium' 3 'High' 4 'Very High')
  4. Work Life Balance (1 'Bad', 2 'Good', 3 'Better', 4 'Best')

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HR Analytics Case Study

Data

Code (62)

Discussion (5)

272

New Notebook

Download (11 MB)

employee\_survey\_data.csv (51.96 kB)

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Detail

Compact

Column

4 of 4 columns

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About this file

This file contains Survey result

EmployeeID	EnvironmentSatis...	JobSatisfaction	WorkLifeBalance
Employee number/Id	Work Environment Satisfaction Level	Job Involvement Level Job Involvement Level Job Involvement Level	Work life balance level
<div><div></div><div>1</div><div>4410</div></div>	3	4	3
	4	3	2
	Other (1726)	Other (1720)	Other (731)
1	3	4	2
2	3	2	4

Data Explorer

Version 1 (47.23 MB)

data\_dictionary.xlsx

data\_dictionary

employee\_survey\_data.csv

general\_data.csv

in\_time.csv

manager\_survey\_data.csv

out\_time.csv

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employee\_survey\_data.csv

	A	B	C	D
	EmployeeID	EnvironmentSatisfac	JobSatisfaction	WorkLifeBalance
1	1	3	4	2
2	2	3	2	4
3	3	2	2	1
4	4	4	4	3
5	5	4	1	3
6	6	3	2	2
7	7	1	3	1
8	8	1	2	3
9	9	2	4	3
10	10	2	1	3
11	11	3	4	3
12	12	NA	4	3
13	13	4	1	3
14	14	1	2	2
15	15	4	4	2
16	16	3	4	4
17	17	4	3	4
18	18	1	4	3
19	19	2	2	2
20	20	1	1	3
21	21	3	2	1
22	22	1	2	2
23	23	3	3	2
24	24	2	3	3
25	25	2	4	2
26	26	2	4	3

c. Let us try to understand about each field of the data (manager\_survey\_data.csv)

1. Employee ID
2. Job Involvement (1 'Low' 2 'Medium' 3 'High' 4 'Very High')
3. Performance Rating ( 1 'Low', 2 'Good', 3 'Excellent', 4 'Outstanding')

kaggle.com/datasets/vjchoudhary7/hr-analytics-case-study?select=manager\_survey\_data.csv

HR Analytics Case Study

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manager\_survey\_data.csv (43.04 kB)

Version 1 (47.23 MB)

- data\_dictionary.xlsx
- data\_dictionary
- employee\_survey\_data.csv
- general\_data.csv
- in\_time.csv
- manager\_survey\_data.csv
- out\_time.csv

Detail Compact Column 3 of 3 columns

About this file

This file contains employees feedback survey about their managers

EmployeeID	# JobInvolvement	# PerformanceRating
1	4	4
1	3	3
2	2	4
3	3	3
4	2	3
5	3	3

	A	B	C
1	EmployeeID	JobInvolvement	PerformanceRating
2	1	3	3
3	2	2	4
4	3	3	3
5	4	2	3
6	5	3	3
7	6	3	3
8	7	3	4
9	8	3	4
10	9	3	4
11	10	3	3
12	11	2	3
13	12	3	3
14	13	3	3
15	14	2	3
16	15	3	3
17	16	3	3
18	17	2	3
19	18	3	3
20	19	2	3
21	20	3	3
22	21	3	3
23	22	2	4
24	23	3	3
25	24	1	3
26	25	3	3
27	26	3	3