Analysis of absenteeism in a company

ANALYSIS REPORT

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ROUNAK AGARWAL
SARWARISH UPADHYAY

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INTRO

In every company for every manager, it becomes hard to keep a tab upon every employee's habit and their case for absence and sometimes because of such culture many loyal employees having a good reason for absence caught up in a mess for not respecting the work culture and ethics of the organization they are working for.

Similar case is being presented in front of us where we have a data of a company and its 36 employees their info and their reason for absence and the total number of times absence taken accounted with the duration of absence also across all the seasons, months and the working days.

Dataset contains all the respective info that an analyst requires to create a better analysis of the employees irrespective of their work code and performance.

So, we would like to take out the relation between the absence and their specific reasons to count for the employees which have a good reason for their absence and also many employees who are taking a huge amount of absence disrespecting their work ethics and rules that are laid by the organization.

Now, we will have a small look on the dataset provided by the company.

DATASET INFO

Dataset given is

ID	Reason for	Month of a	Day of the	Seasons	Transport	Distance f	Service tin	Age	Work load	Hit target	Disciplinar	Education	Son	Social drin	Social smo	Pet	Weight	Height	Body mass	Absenteeism tim
11	26	7	3	1	289	36	13	33	239.554	97	0	1	2	1	0	1	90	172	30	4
36	0	7	3	1	118	13	18	50	239.554	97	1	1	1	1	0	0	98	178	31	0
3	23	7	4	1	179	51	18	38	239.554	97	0	1	0	1	0	0	89	170	31	2
7	7	7	5	1	279	5	14	39	239.554	97	0	1	2	1	1	0	68	168	24	4

ID: represents the ID of the employee

Reason for absence: Reasons are divided into different ReasonID into 27 categories

Month of Absence: From Jan (1) to December (12)

Day of the week: From Monday (2) to Friday (6)

Seasons: summer (1), autumn (2), winter (3), spring (4)

Transportation expense: Expense of employee transportation

Distance from Residence to work (in km): Distance b/w office and home

Service time: Time given in office

Age: age of the employee

Work load Average/day: Daily average work load

Hit target

Disciplinary failure: yes=1; no=0

Education: high school (1), graduate (2), postgraduate (3), master and doctor (4)

Son: number of children

Social drinker: yes=1; no=0
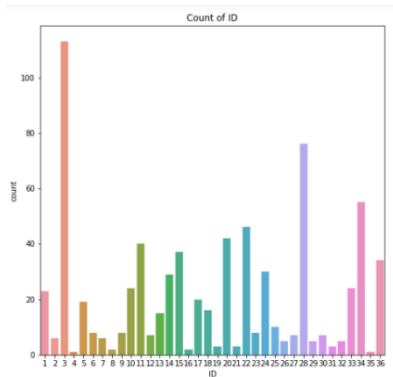
Social smoker: yes=1; no=0

Pet: number of pets

Weight: weight of the employee

Height: height of the employee

**Body mass index: BMI of the employee**

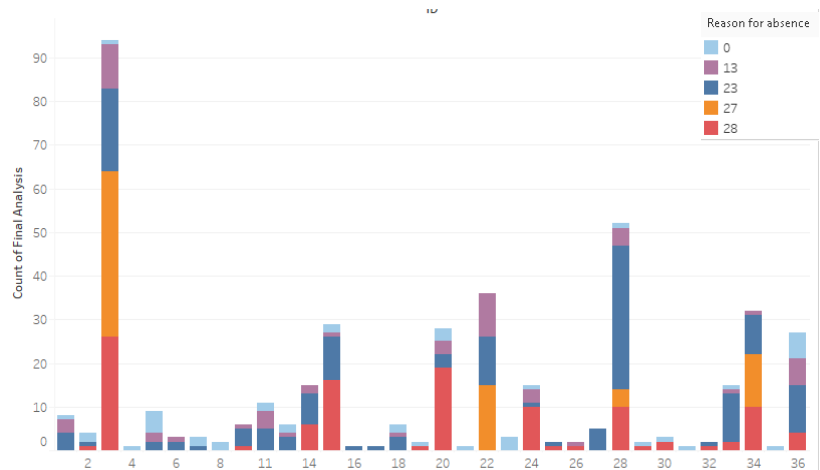**Absenteeism time in hours (target): Duration of absence**

ANALYSIS

Here we can see the various counts of the different employees and the number of times they have taken the absence from the organization. So, we can see that some employees like employee number 4 or 35 have not taken any absence and some employee like 3 and 28 have taken a large number of absences.

Here in the right-hand side graph, we can see the total duration of absence taken a by the employees throughout the time period in the given dataset, upon comparing with the above one we can see which employee taken more duration of period with respect to the count of their absence. Some points to point are employee 3 seems to take small period of leaves, where as some employees like 9 or 11 take large about of period in each of their absence.
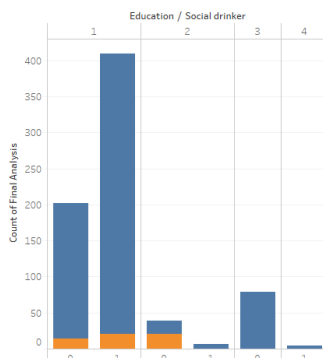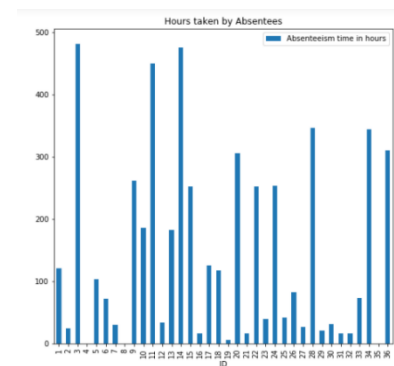

Here is the comparison with the education whether a person can be a social drinker or smoker or not, as we can see that person with higher education like PhD or PG course, neither drink or smoke which is a positive sign in accord with their reasons for expenses which may lead to visiting doctors for various reasons.

This graph represents the employee with their count of absence and the top 5 reasons of absence among the employees where reason 0 represents that employee took no leave on that occasion. Top 3 reasons were 28- dental consultation, 27-physiotherapy, 23-medical consultation. As these 3 types of reasons seems to be common in everyday around some may be called for regular check up too, which should be taken into consideration, as an employee with only good health is more profitable to the organization.
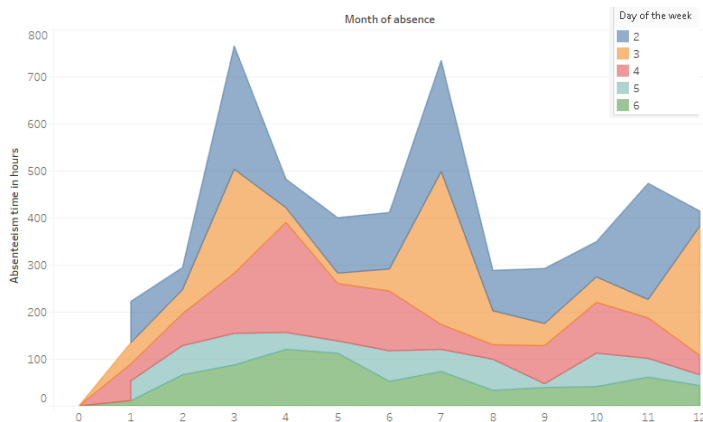
In this graph, we can see the comparison of month for absence in the x-axis and the hours of absence with that particular month and the shades of the day of week, we can see the hike of the hours in mostly Monday or Tuesday, in case of Monday most employee might sometime take a weekend extension of 2 days to 3 days and most hours in absence seems to gone in month of march to July which can be compared to the employee who have children who get their summer vacation off and tend to spend time with family.

Here we can see the various reason with the duration of absence with the season of absence, some draw outs are like absence for skin diseases in winter is logically correct and many employees might get rough skin, and all the other reasons are listed.

Here the employee absence time is categorized according to their education, on a large-scale people with lower education tends to take more hours of absence than the others.
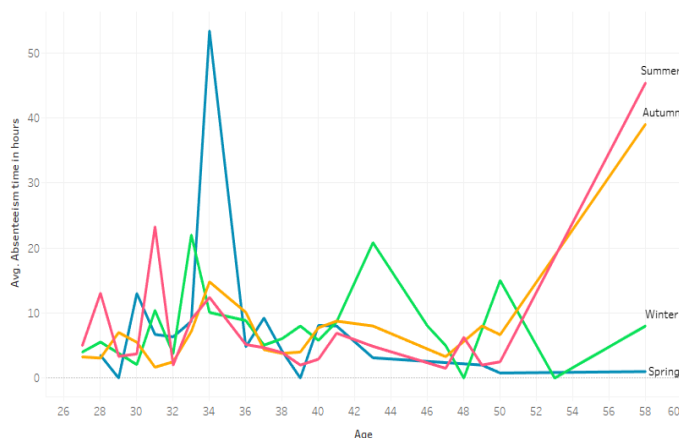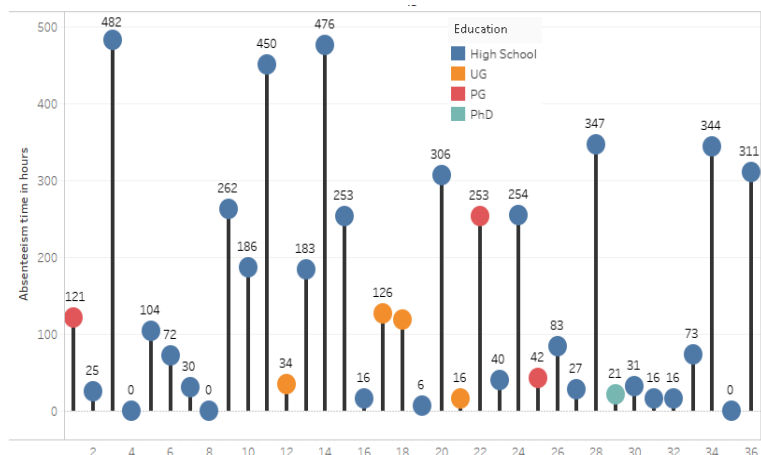

Here we can observe the trend of absence hours with age and category of seasons, employee above 50 take more absence during summer and autumn seasons and employee in age of 32-36 take more absence during spring.
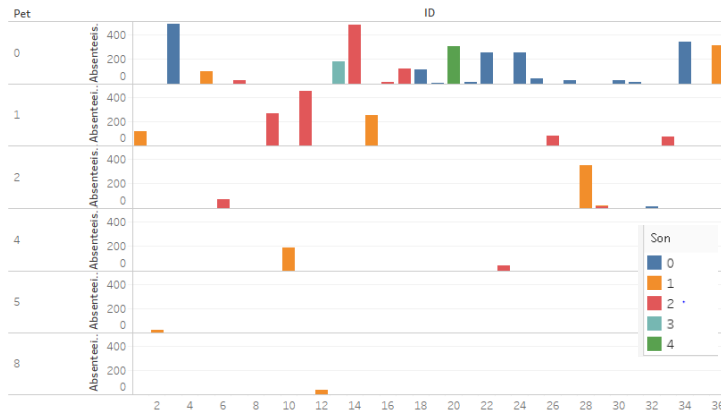
Here we can see that having pets does not cause much of a reason for absence but having kids does and having more than 1 kids can sometimes cause a huge absence reason in general lifestyle and workstyle too.

Here we can see the employee absence with respect to their BMI as labeled and bars represent the sum hour of absence. As we can see people with BMI > 25(overweight / obese) tends to have more absence hours.
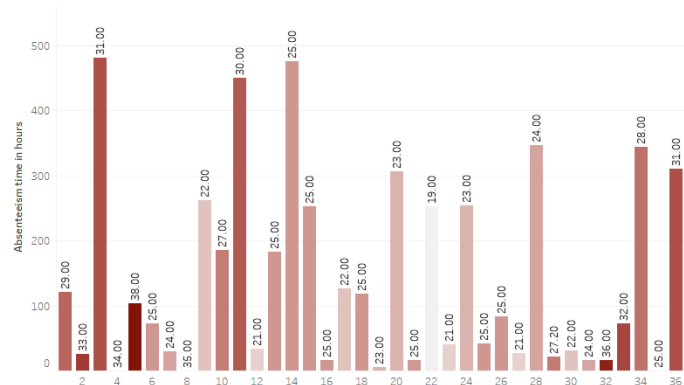
SUMMARY

At last, we conclude, seeing all the comparison above many insights have been gained, like different common reasons for absence some may lead to interval appointment or checkup and which season tends to have more hour of absence also comparison with month and day to week like Monday tends to have a large number of absence hours may be due to continuing the weekend.

We have also seen that pet does not possess much of a force for the absence of the employee but may be having more than 1 kids may possess a condition for a larger absence hours and education shows us that employee with education degrees of only high school tends to do more absence.

And with respect to age employee with age 50 tends to have more absence hours than other employees specially in summer and autumn season.

That conclude our whole analysis and the insights of the dataset provided to us.

THANK YOU,
LEAPING DATA