Charan N

To do:

Collect a dataset from the internet which is related to any of the 17 Sustainable Development Goals Clean & Prepare Data if required Find out what are the possible relevant insights that we can get from the data. Create a good looking dashboard. Create a report in PDF format clearly explaining the steps followed, with required screenshots of Visualizations that you created and details of insights that you obtained from the data.

Analytical Report:

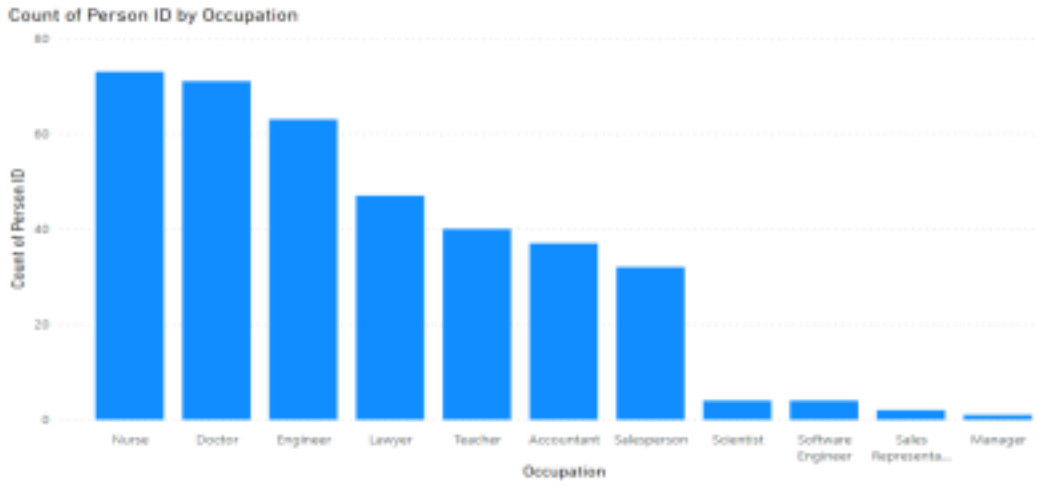
- Here I have taken "The Sleep Health and Lifestyle Dataset" for the analysis. This dataset comprises 400 rows and 13 columns, covering a wide range of variables related to sleep and daily habits. It includes details such as gender, age, occupation, sleep duration, quality of sleep, physical activity level, stress levels, BMI category, blood pressure, heart rate, daily steps, and the presence or absence of sleep disorders.
- Sleep, as a fundamental aspect of human health and well-being, is not explicitly mentioned as a standalone target or goal in the 17 Sustainable Development Goals (SDGs) adopted by the United Nations. However, sleep can be indirectly related to several of these goals, particularly those concerning health and well-being, sustainable cities, and quality of life.
- The goals that are indirectly related to this dataset are Goal 3: Good Health and Well-being, Goal 11: Sustainable Cities and Communities, Goal 12: Responsible Consumption and Production.
- While sleep is not explicitly listed as an SDG target, it is an important component of overall well-being and can be influenced by various aspects of sustainable development. Improving public health, urban planning, and environmental conditions can contribute to better sleep for individuals and communities.

Insights based on the dataset and steps to be followed for visualization:

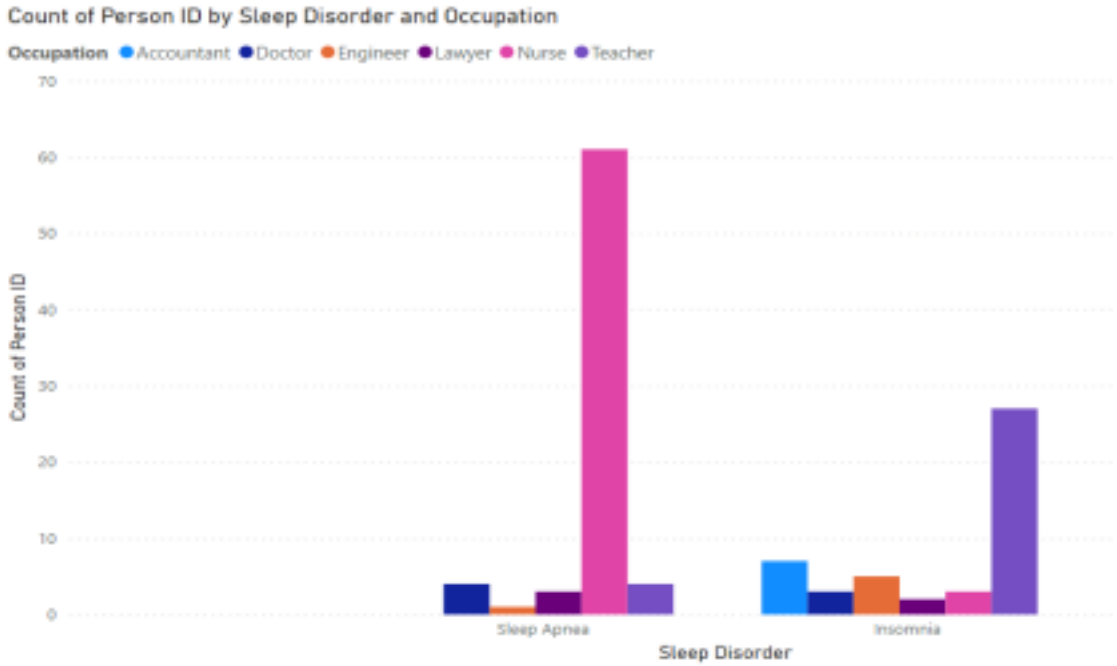
Open powerbi and click on import from excel file and after doing data cleaning and data transformation, load the data. The following processes are done on the report view which is located on the left side. The charts are present on the right side of the screen under "Visualizations". Select the necessary elements from it for the dashboard and report.

1. First card gives the "Count" of people that is 374. Using the "Stacked Column Chart" I have made a chart of people of different occupations to see the highest number of people and distribution of people in different occupations. Highest number of people works as "Nurse" followed by doctor, engineer, lawyer, teacher etc. For creating this after clicking the stacked column chart, I selected the x axis as "Occupation" and the y axis as the

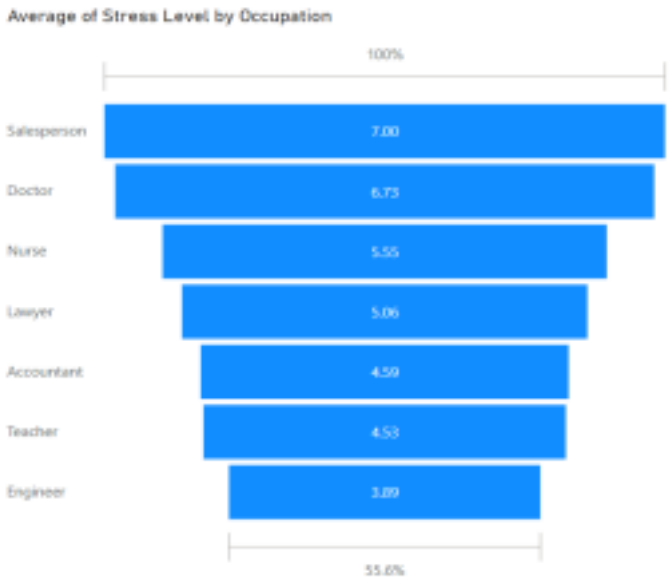
count of “Person ID”.
The chart is given below:



2. Next insight I have made is about the “Sleep Disorder” for people of different occupations. I have selected “Line and Clustered Column Chart” then gave the x axis as “Sleep Disorder” and y axis as count of “Person ID” and also column legend as “Occupation”. This chart helps to see which disorder is more in which occupation. The chart is given below:

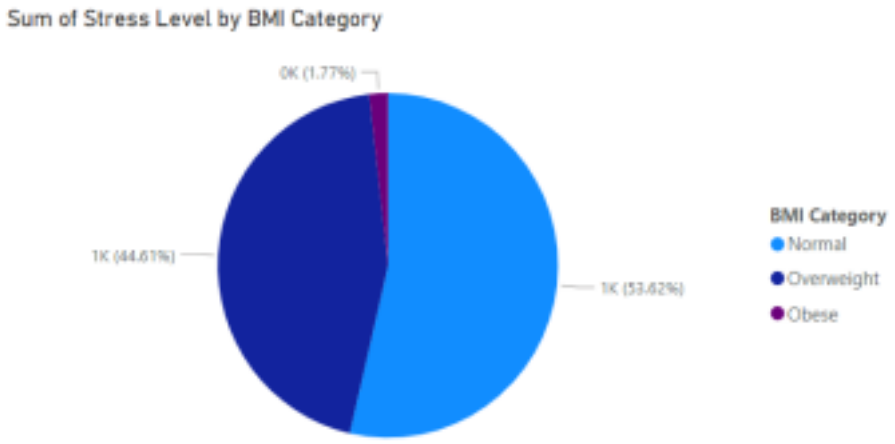


3. Seeing the stress level by specific occupation is also important because we can find which industry has more stress using it. For this I have taken a “Funnel” chart with categories as “Occupation” and values as average of “Stress Level”. The chart is given below.

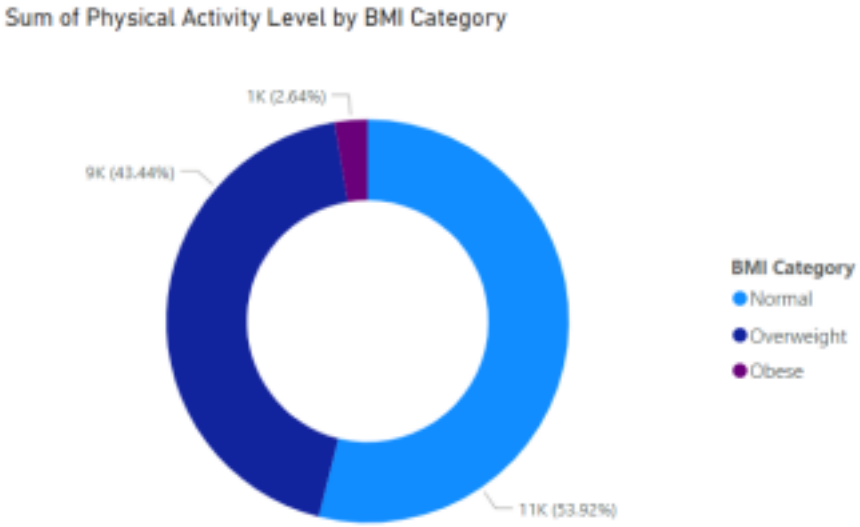


4. Using the “Line Chart” with x axis as “Age” y axis as average of “Daily Steps” and secondary y axis as average of “Stress Level” I have plotted the relationship between the stress level of people and the walking of people. This helps us to understand whether the people who walk more have any possibility of having less stress. The chart is given below:

5. Using “Pie Chart” I got an insight of how “Stress Level” is related to “BMI Category”. Using this we can see the percentage of people in different BMI categories having the amount of stress. It is in the pie chart given below:



6. Using “Donut Chart” I got a relation between “BMI Category” and “Physical Activity”. This shows the relationship between the people with different physical activity level falls on which “BMI Category”. Donut chart of this is given below:



7. After the usage of some charts, here I have given a consolidated report of the dataset using some cards which is used to relate some information.

✓ Total people in this dataset: 374
✓ Average Sleep Duration of the people: 7.13 Hours
✓ Average Sleep Quality: 7.31 (Out of 10)
✓ Average Daily Steps: 6.82
✓ Average Stress Level: 5.39
✓ Count of People having Sleep Apnea: 78

✓ Count of People having Insomnia: 77
✓ Count of People having no Sleep Disorder: 219

Dashboard: