

November 2024

This month's contest is based around the theme of stress. The first Wednesday in November is National Stress Awareness Day. This is an opportunity to think about the effects of stress, physically and mentally, as well as how we can manage feelings of stress.

Codebook

- Person ID: An identifier for each individual.
- Gender: The gender of the person (Male/Female).
- Age: The age of the person in years
- Occupation: The occupation or profession of the person.
- Sleep Duration (hours): The number of hours the person sleeps per day.
- Quality of Sleep (scale: 1-10): A subjective rating of the quality of sleep, ranging from 1 to 10.
- Physical Activity Level (minutes/day): The number of minutes the person engages in physical activity daily.
- Stress Level (scale: 1-10): A subjective rating of the stress level experienced by the person, ranging from 1 to 10.
- Blood Pressure (systolic/diastolic): The blood pressure measurement of the person, indicated as systolic pressure over diastolic pressure.
- Heart Rate (bpm): The resting heart rate of the person in beats per minute.
- Daily Steps: The number of steps the person takes per day.
- Sleep Disorder: The presence or absence of a sleep disorder in the person (None, Insomnia, Sleep Apnea).

Prompts

Level 1: Write a script to create a visualization showing the distribution of the 'Quality of Sleep' variable. Write a script to identify any outliers present in the 'Stress Level' variable. Is 'quality of sleep' normally distributed? Are there any outliers present in 'Stress Level?'

Level 2: If you identify any outliers present in the 'Stress Level' variable, write a script that removes the outliers. Find the min, median, max, average, and standard deviation of 'Stress Level,' 'Quality of Sleep,' and 'Physical Activity Level.'

Level 3: Plot the relationship between 'Age' and 'Quality of Sleep.' Create a table to show the average 'Stress Level' by 'Occupation.'

Level 4: Is there a relationship between 'Quality of Sleep' and 'Stress Level?'