Project 1 Title: Effects on Quality of Sleep

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Project Description/Outline:

In this project we will be looking at a few different aspects of lifestyle and what effect they have on the quality of sleep. We will be making different graphs to showcase how the different variables affect the quality of sleep.

Project Questions:

We will go through each of these questions in the data to see which ones show the most impact and the factors that have the least impact, then those factors are what we will look at further. So these are all the individual questions, but which questions we will pursue depends on how much of an impact the factor has and if the data still works to show an answer for the question after cleaning it up.

What impact does exercise have on the quality of sleep?

What impact does stress level have on the quality of sleep?

What impact does gender have on the quality of sleep?

What impact does age have on the quality of sleep?

What impact does occupation have on the quality of sleep?

What impact does sleep duration have on the quality of sleep?

What impact does the physical activity level have on the quality of sleep?

What impact does BMI have on the quality of sleep?

What impact does blood pressure have on the quality of sleep?

What impact does heart rate have on the quality of sleep?

What impact do daily steps have on the quality of sleep?

What impact does a sleep disorder have on the quality of sleep?

Data Sets to be Used:

We will be using a data set found on Kaggle. The data set is called Sleep Health and Lifestyle Dataset. This data has 400 rows and 13 columns. It covers multiple different aspects of lifestyle as well as a rating of quality of sleep.

Rough Breakdown of Tasks:

* Use Pandas to clean data
* Create Jupyter notebook to describe our process through the clean up and data exploration
* Choose 3-8 factors that we now have clean information about
* Create Jupyter notebook to illustrate the final data analysis
* Use this final data analysis to guide in what graphs to make using Matplotlib (create 6-8 visualizations, possibly 2 per question)
* Save PNG images of visualizations for class and instructional team
* Write-up summary of major findings.
  + Heading for each question
  + Short description of findings
  + Relevant plots