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CS677

Assignment 4, Sleep Analysis

**Question 2:**

ID 452

Age 452

Gender 452

Bedtime 452

Wakeup time 452

Sleep duration 452

Sleep efficiency 452

REM sleep percentage 452

Deep sleep percentage 452

Light sleep percentage 452

Awakenings 432

Caffeine consumption 427

Alcohol consumption 436

Smoking status 452

Exercise frequency 446

dtype: int64

**Question 3:**

ID 0

Age 0

Gender 0

Bedtime 0

Wakeup time 0

Sleep duration 0

Sleep efficiency 0

REM sleep percentage 0

Deep sleep percentage 0

Light sleep percentage 0

Awakenings 20

Caffeine consumption 25

Alcohol consumption 16

Smoking status 0

Exercise frequency 6

dtype: int64

**Question 4:**

Values imputed...

**Question 5:**

Groups assigned based on age...

Saving Both\_Averages Table...

Saving Both\_Deviation Table...

Saving Male\_Averages Table...

Saving Male\_Deviation Table...

Saving Female\_Averages Table...

Saving Female\_Deviation Table...

**Question 6:**

Female children sleep the most with an average sleep duration of 8.375

Male adults sleep the least with an average sleep duration of 7.398

Female children wake up the most with an average of 2.5 awakenings per night

Female young adults wake up the least with an average of 1.441 awakenings per night

**Question 7:**

Male adults have the highest sleep effeciency at 80.6%

Female children have the lowest sleep effeciency at 54.25%

**Question 8:**

In general, the more exercise a person gets, the less they sleep

**Question 9:**

In general, the averages table shows that smokers sleep more than non-smokers

**Question 10:**

The first thing I noticed about the table is the lower number of participants under the age

of teenager results in the children and teenager groups having much more volatile answers.

This is further seen in the male tables given that there are no children or teenagers in

the male group at all. One other prevalent are is that deep sleep percentages are much

lower for children and teenagers, where as light sleep is significantly higher for these

groups. The largest areas of deviation in general are in the REM sleep for the all adults.

Adults seem to have the largest deviation but this could be due to the larger sample size.