Gym Members Exercise Tracking

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**Github:** https://github.com/Sharjeel-Analyst/Applied_Data_Science_1

Introduction:

This report includes a dataset having details of gym members and gives us analysis to uncover exercise routines by age, gender, experience level, body mass index (BMI) and calories burned. We will explore gym-goers frequent age group, workout frequency by experience level, and the relationship between BMI and weight differences by gender, also calories burning ratio in males and females on the basis of experience. After these insights gym management tracks and checks fitness outcomes.

Data Visualization and Analysis:

This Histogram graph visually represents the age distribution in our data set, and also computes which age group of people comes frequently in the gym. As the regression line shows people from 20 years to 45 years of age go frequently.
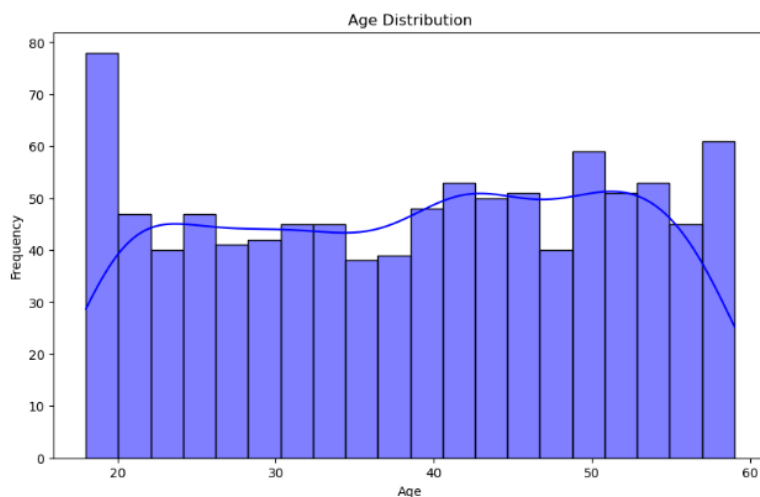

The Bar graph illustrates how workout frequency varies across different experience levels. People who have more experience also have higher workout frequency. As with experience level 2 maximum frequency is 1.0 but people who have experience level 5 also have highest frequency that is 3.0.
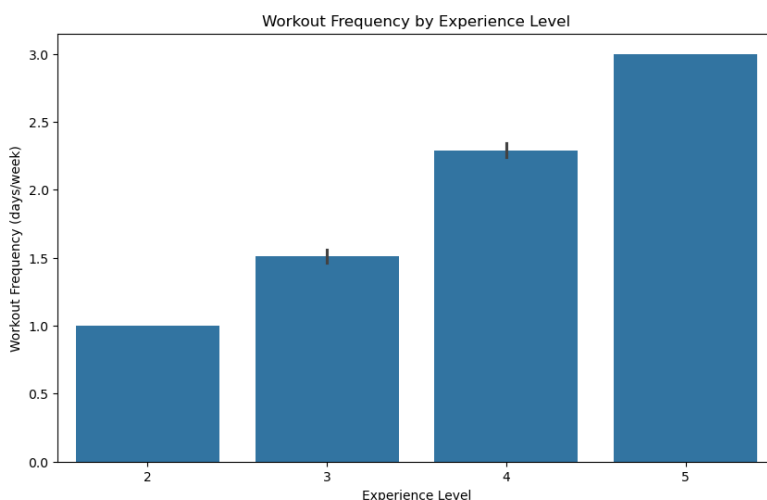
This scatter graph visually shows how weight correlates with BMI. Also highlighting by color differences between genders (Males & Females), who have more weight or BMI. Most females have weight between 60 to 80 kgs and lower BMI levels than males.
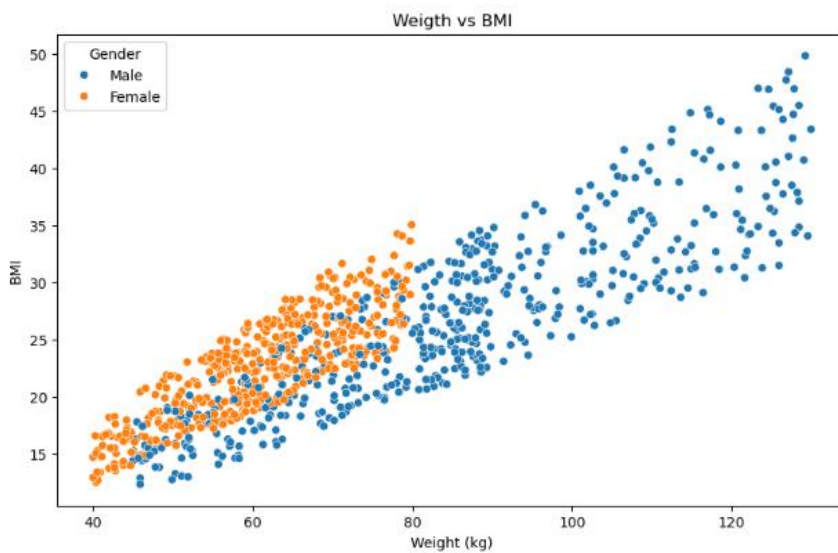
This Box graph illustrates the distribution of calories burned between different experience levels while also highlighting gender differences. The Figure also provides information on how workout intensity might differ among various experience levels and genders. People who have more experience level more they burn the calories. As in the graph males with experience level 1 burn calories between 600 to 900 while with experience level 3 burn calories between 1100 to 1400.
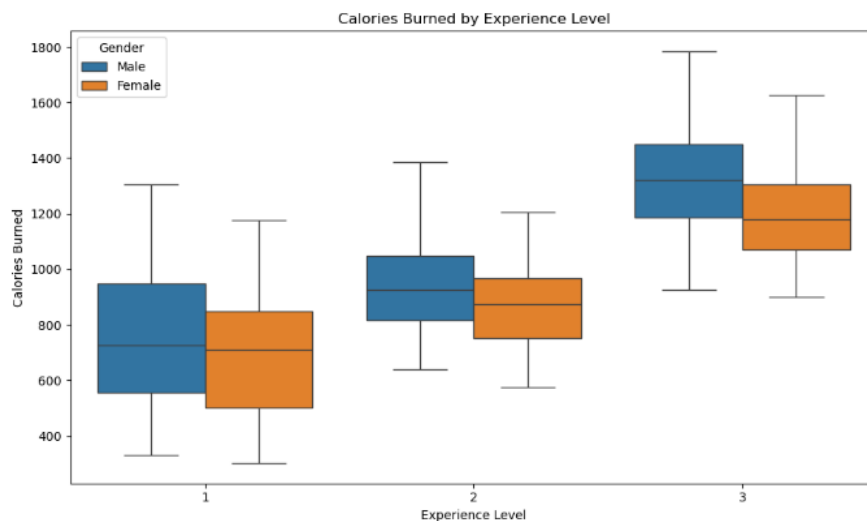
Conclusion:

In conclusion, the analysis of the various graphs reveals significant insights into the exercise routine of gym members. As histogram shows which age group workouts frequently, bar chart shows workout intensity by experience level, the scatter graph generates the weight and BMI relation or highlights the genders and on the last Box graph shows which experience level group burn more calories in both males and females. By this data, fitness professionals can enhance the effectiveness of their interventions, ultimately promoting healthier lifestyle choices.

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[1] **Reference:** Dataset taken from Kegel name as Gym Members Exercise Dataset