# Exploratory data analysis of obesity among gender and various age groups


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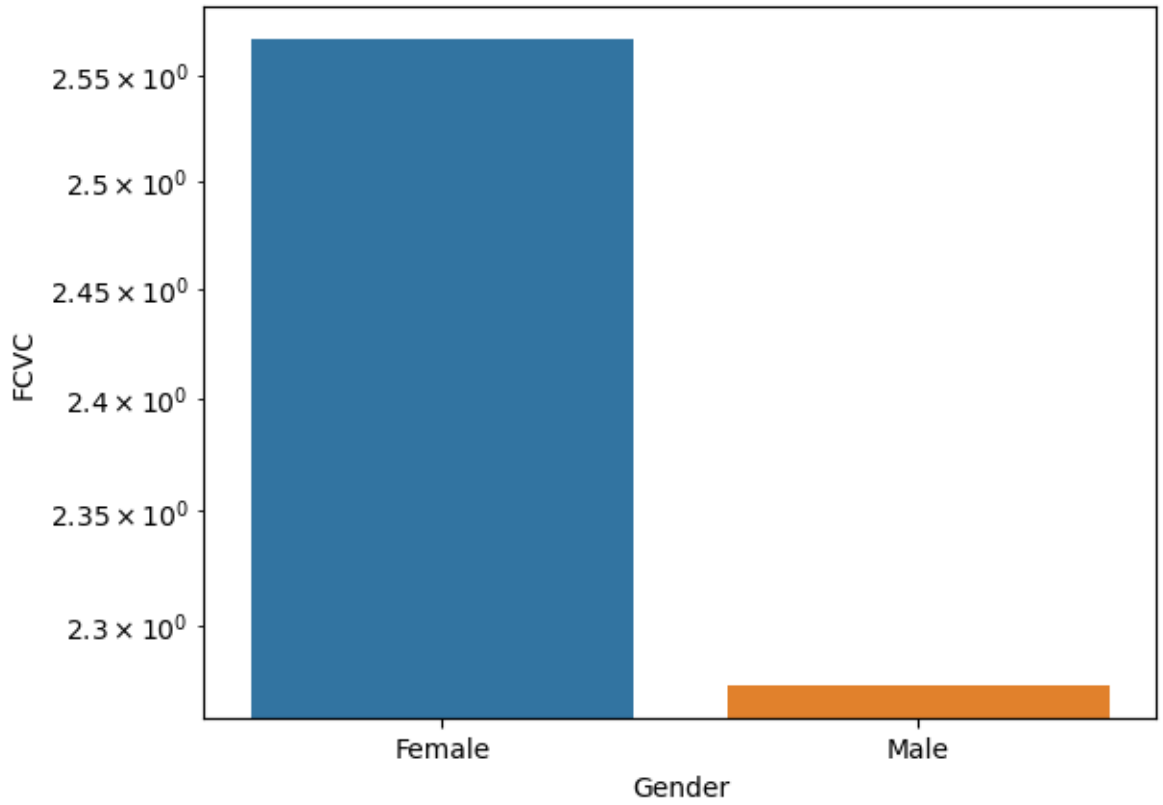
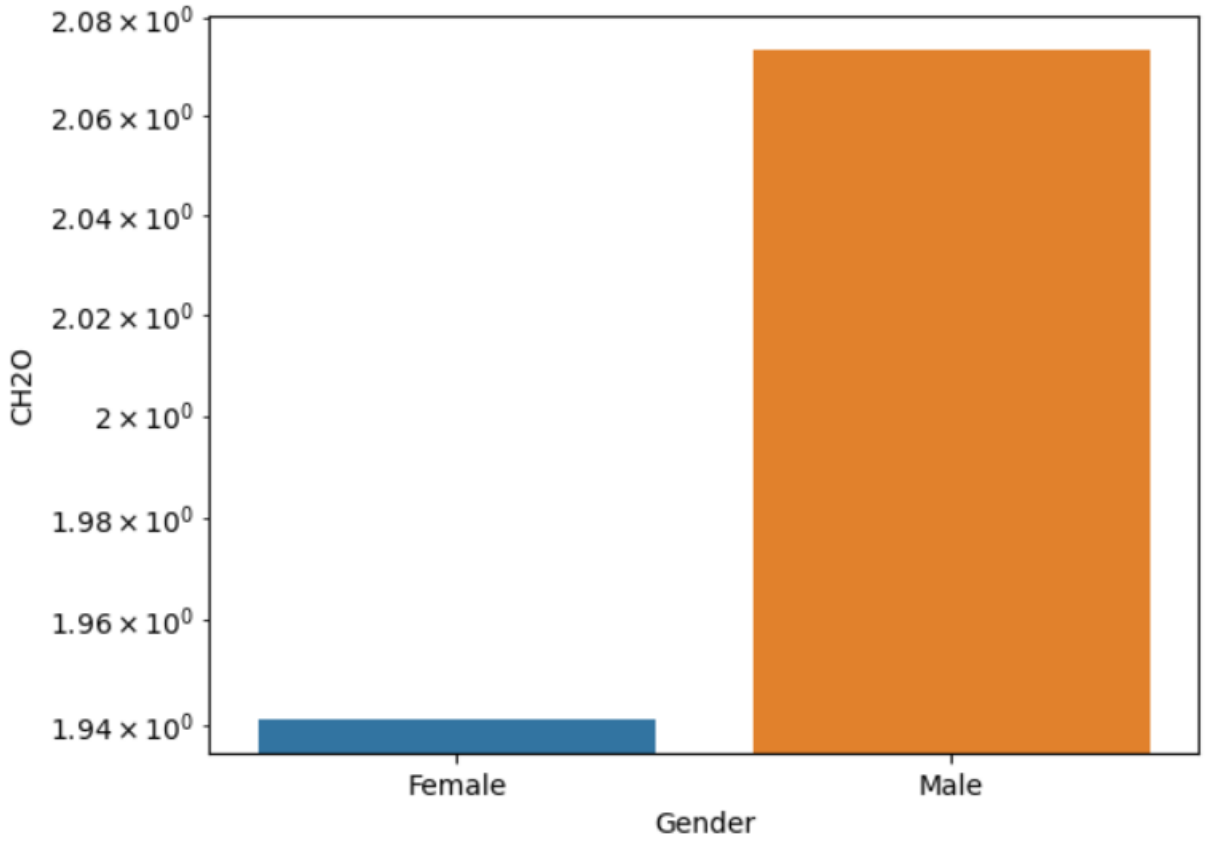
Abstract :

The report presents an in-depth exploratory data analysis focusing on the prevalence of obesity across different genders and age groups. The primary objective is to gain valuable insights into the prevailing health concerns related to obesity among individuals. By examining obesity rates among 2111 participants, the study aims to shed light on the complexities and variations within this health issue. Through comprehensive data analysis, including demographic breakdowns and trend identification, the report endeavors to provide a nuanced understanding of the challenges posed by obesity in contemporary society. By delving into the data encompassing a diverse sample of individuals, ranging across various age groups and genders, the report strives to offer actionable insights for addressing and mitigating the impacts of obesity on public health

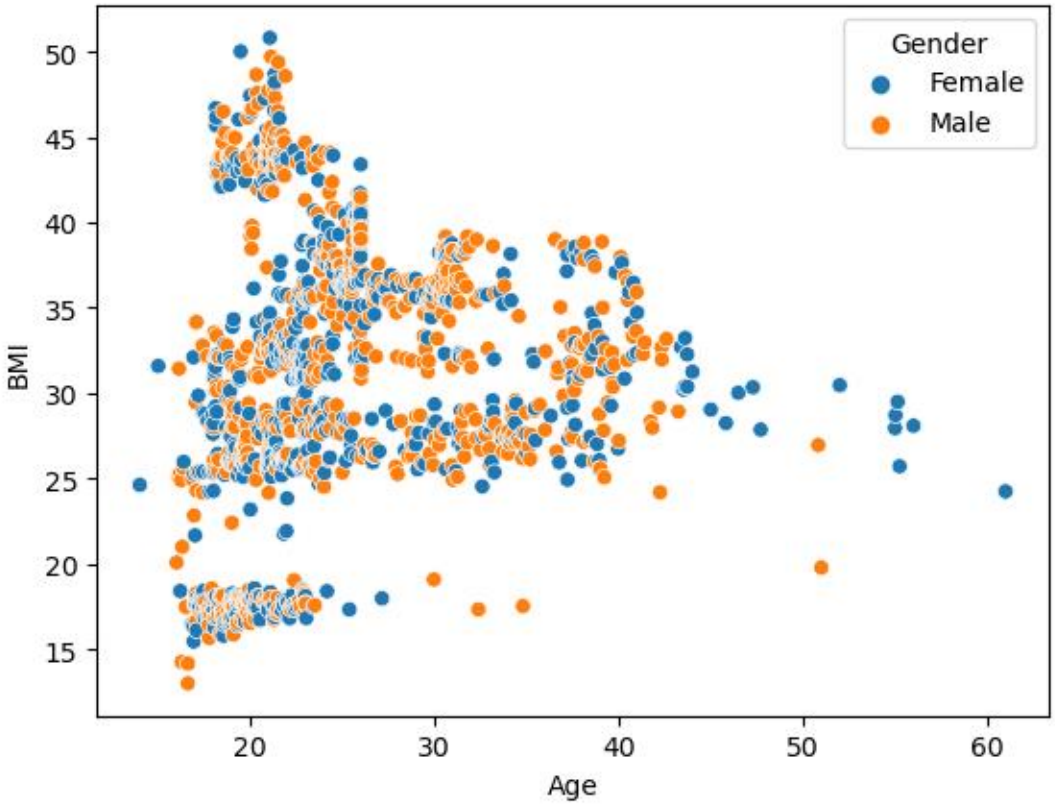



This bar graph provides a comparative analysis of the consumption of FCVC (vegetable consumption in their food) between males and females. Upon examination of the data depicted in the graph, a notable trend emerges, indicating that females exhibit a higher likelihood of consuming vegetables in their diet compared to males. This observation suggests a potential disparity in dietary habits between genders, with females demonstrating a greater inclination towards incorporating vegetables into their meals. Such insights into gender-specific dietary patterns can contribute valuable information to public health initiatives aimed at promoting healthier eating habits and addressing nutritional disparities among different demographic groups.

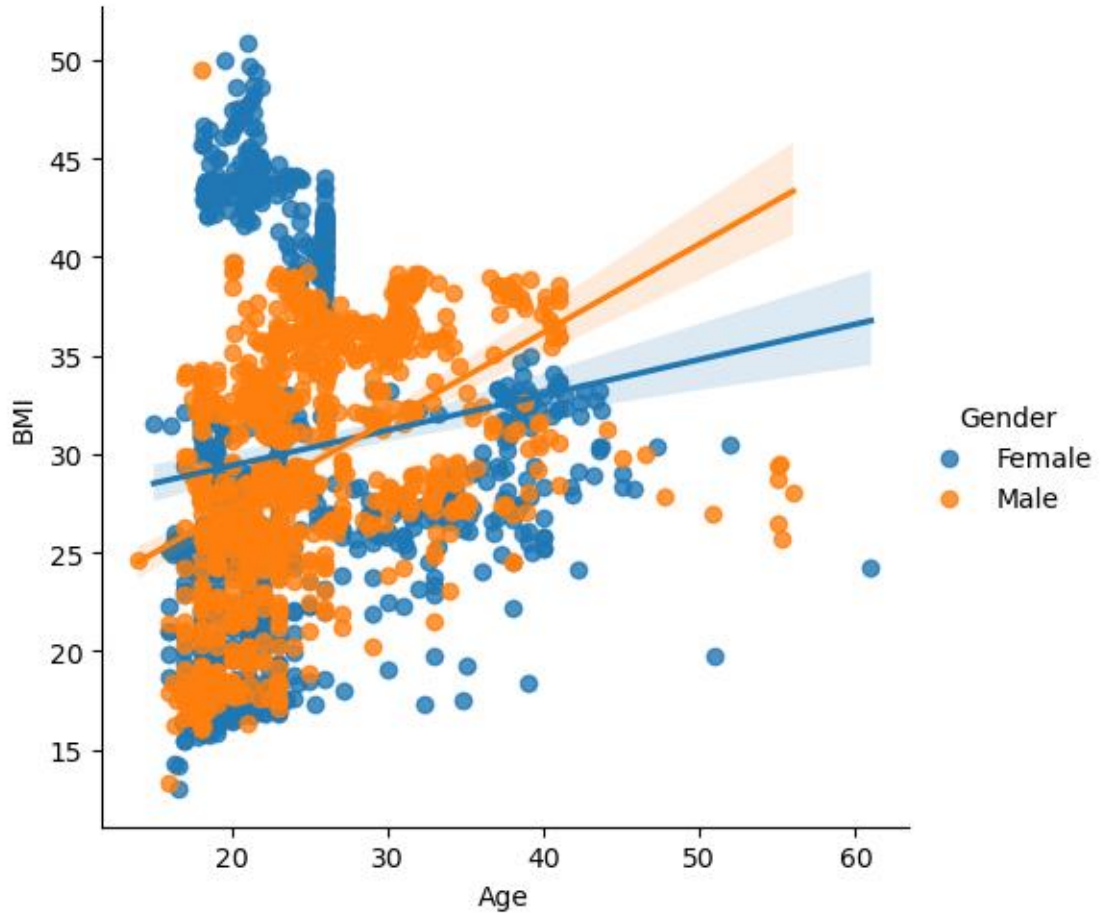



This graph illustrates that males are more likely to consume alcohol (CH2O) than females, a factor that can contribute to obesity among individuals. The data depicted in the graph indicates a higher prevalence of alcohol consumption among males, which correlates with increased risks of obesity and related health issues. Understanding this relationship between alcohol intake and obesity is crucial for developing targeted interventions and public health strategies aimed at addressing the complex factors contributing to unhealthy

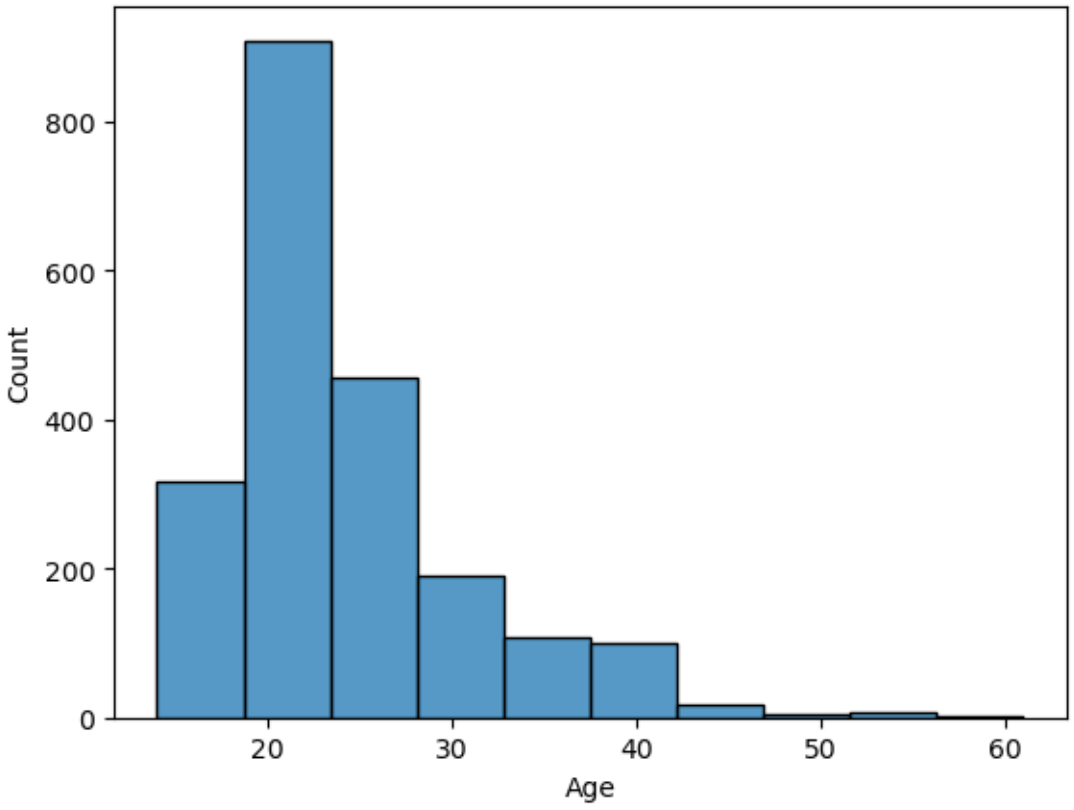
weight gain in populations. y



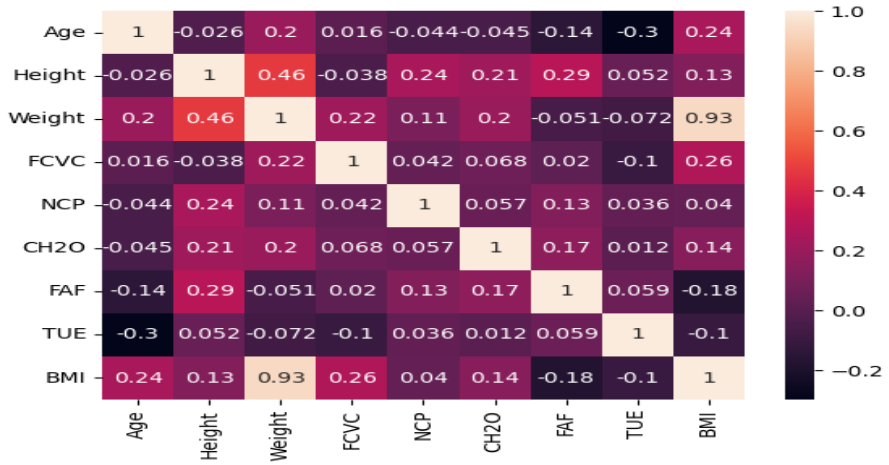

This graph illustrates the relationship between age and BMI (Body Mass Index), with age represented on the x-axis and BMI on the y-axis. Additionally, the graph incorporates a color-coded segmentation based on gender, with blue representing females and orange representing males. By examining the distribution of data points across age categories and BMI values for both genders, the graph provides insights into how BMI varies with age and differs between males and females.




This regression plot depicts the relationship between age and BMI (Body Mass Index), with gender represented as a distinguishing factor through color-coding (hue). Separate regression lines are plotted for males and females, allowing for a clear comparison of the relationship between age and BMI within each gender group. The analysis reveals distinct patterns: males tend to show a steeper increase in BMI with age compared to females. This disparity is attributed to factors such as alcohol consumption among males and vegetable consumption among females, which contribute differently to obesity prevalence in each gender. Specifically, the higher prevalence of alcohol consumption among males and greater vegetable consumption among females are identified as significant contributors to the observed gender differences in obesity trends as individuals age.




T Upon analysis of this population dataset, it is evident that the mean age falls within the range of approximately 20 to 30 years. This finding suggests that the dataset predominantly consists of individuals in their early to mid-adult years. Understanding the demographic composition, particularly the age distribution, is crucial for interpreting any subsequent analyses or findings derived from the dataset.



This Seaborn heatmap represents a correlation matrix generated from the DataFrame using the corr() function.