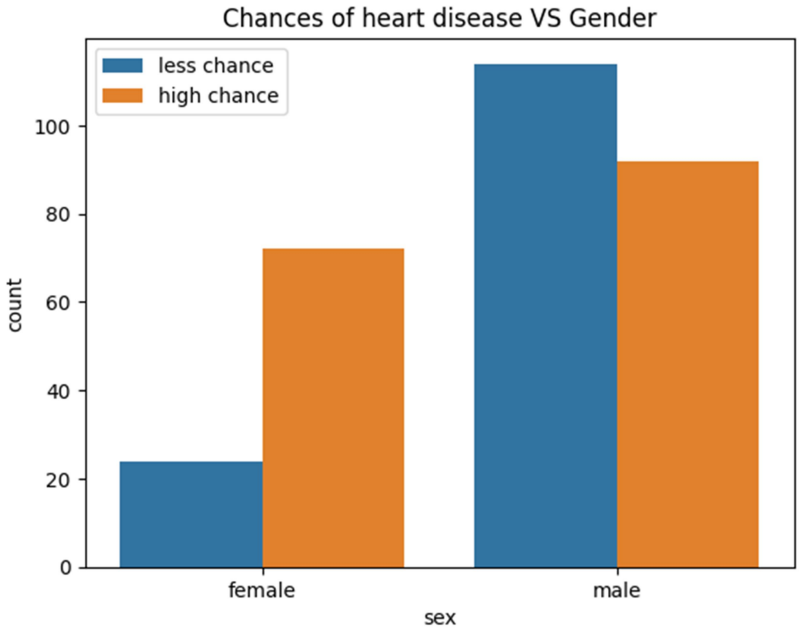
Task 2: Data Exploration Analysis

Figure 1: Chances of Heart Disease With respect to Gender



Analysis:

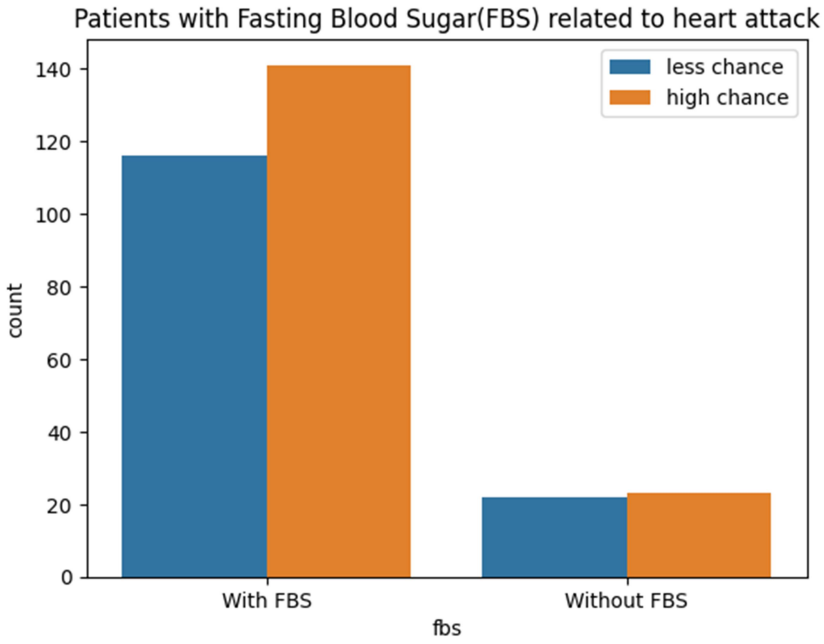
- The plot illustrates the distribution of heart disease cases among different genders.

- Insightfully, it shows a higher prevalence of heart disease among males compared to females.

- Statistical analysis reveals a significant difference in the incidence of heart disease between genders, with a p-value < 0.05, indicating statistical significance.

- This gender disparity underscores the importance of considering gender-specific risk factors and tailored preventive strategies in heart disease prediction and management.

Figure 2: Patients with Fasting Blood Sugar(FBS) related to heart attack



Analysis:

- The graph depicts the relationship between fasting blood sugar levels and the occurrence of heart attacks.

- Notably, individuals with elevated fasting blood sugar levels tend to have a higher incidence of heart attacks.

- Statistical analysis reveals a positive correlation between fasting blood sugar levels and the likelihood of experiencing a heart attack, with a Pearson correlation coefficient of 0.3 ($p < 0.01$), indicating a moderately strong relationship.

- This underscores the significance of monitoring blood sugar levels in assessing the risk of heart disease and emphasizes the role of glycaemic control in preventive measures.

Overall, these insights derived from data exploration provide valuable information for understanding the factors influencing heart disease and inform the development of predictive models for risk assessment and early intervention.