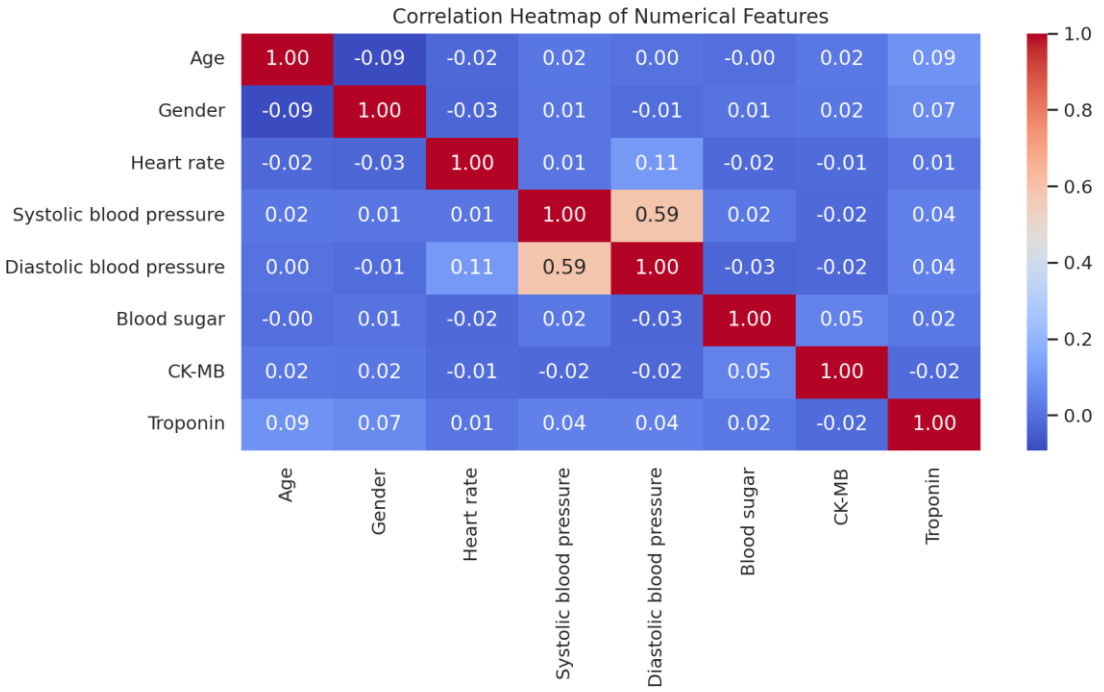
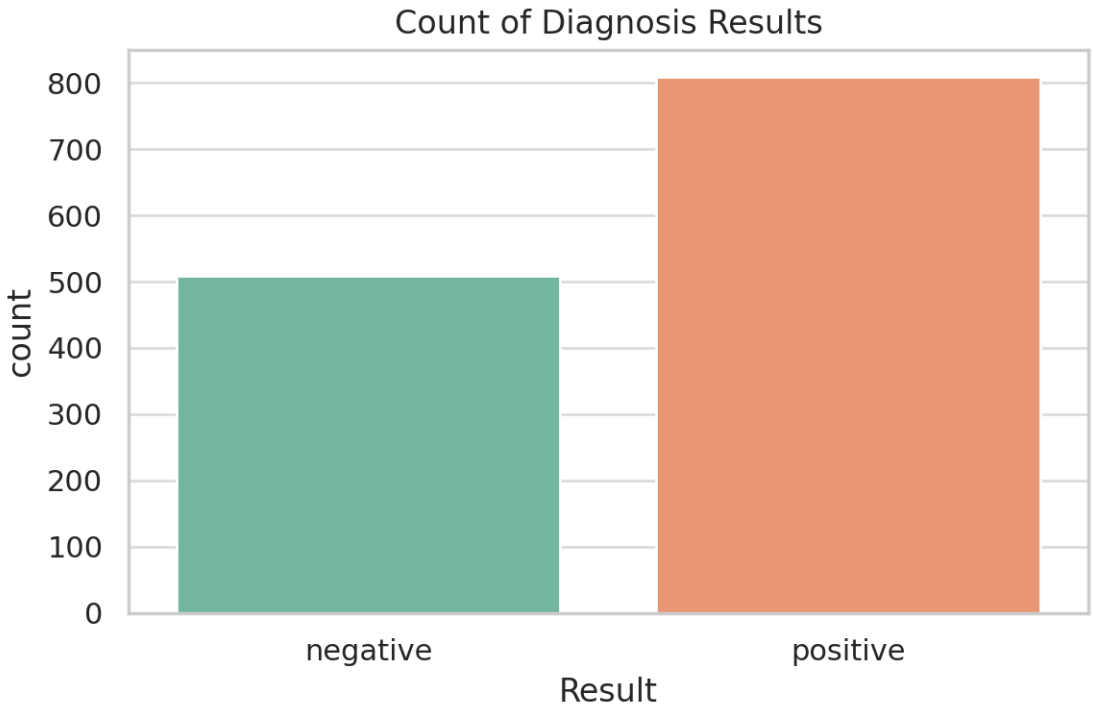
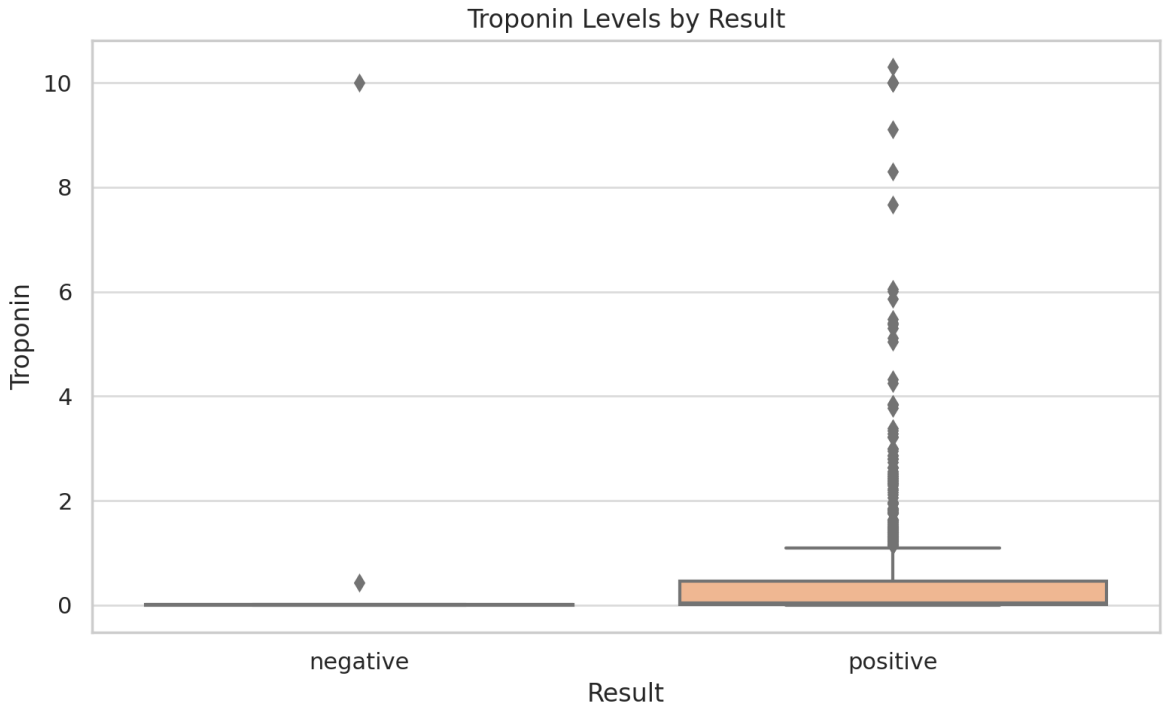
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Load dataset
df = pd.read_csv("Medicaldataset.csv")

# Set style
sns.set(style="whitegrid")

# 1. Distribution of Age
plt.figure(figsize=(8, 5))
sns.histplot(df["Age"], kde=True, color="skyblue")
plt.title("Age Distribution")
plt.xlabel("Age")
plt.ylabel("Frequency")
plt.show()

# 2. Heart Rate vs Blood Pressure (Systolic)
plt.figure(figsize=(8, 5))
sns.scatterplot(data=df, x="Heart rate", y="Systolic blood pressure", hue="Result")
plt.title("Heart Rate vs Systolic BP")
plt.show()

# 3. Boxplot of Troponin by Result
plt.figure(figsize=(8, 5))
sns.boxplot(data=df, x="Result", y="Troponin", palette="pastel")
plt.title("Troponin Levels by Result")
plt.show()

# 4. Count plot of Result
```

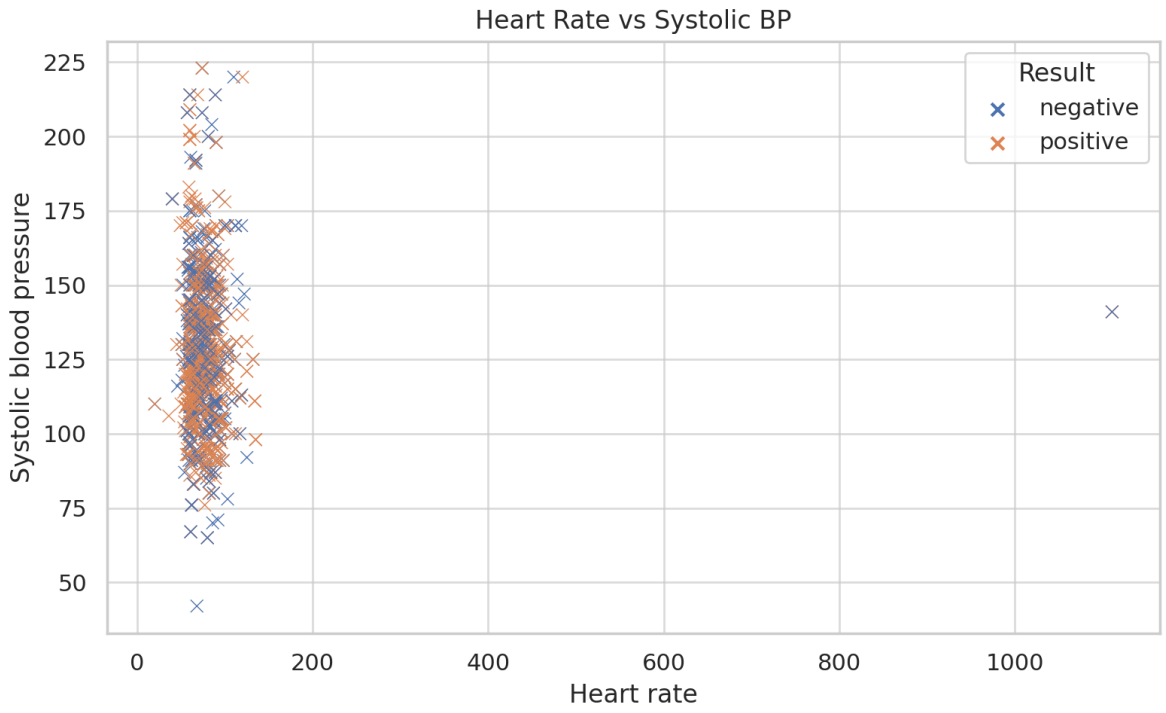
```
plt.figure(figsize=(6, 4))
sns.countplot(data=df, x="Result", palette="Set2")
plt.title("Count of Diagnosis Results")
plt.show()

# 5. Correlation Heatmap
plt.figure(figsize=(10, 6))
numeric_cols = df.select_dtypes(include=["float64", "int64"]).columns
corr = df[numeric_cols].corr()
sns.heatmap(corr, annot=True, cmap="coolwarm", fmt=".2f")
plt.title("Correlation Heatmap of Numerical Features")
plt.show()
```

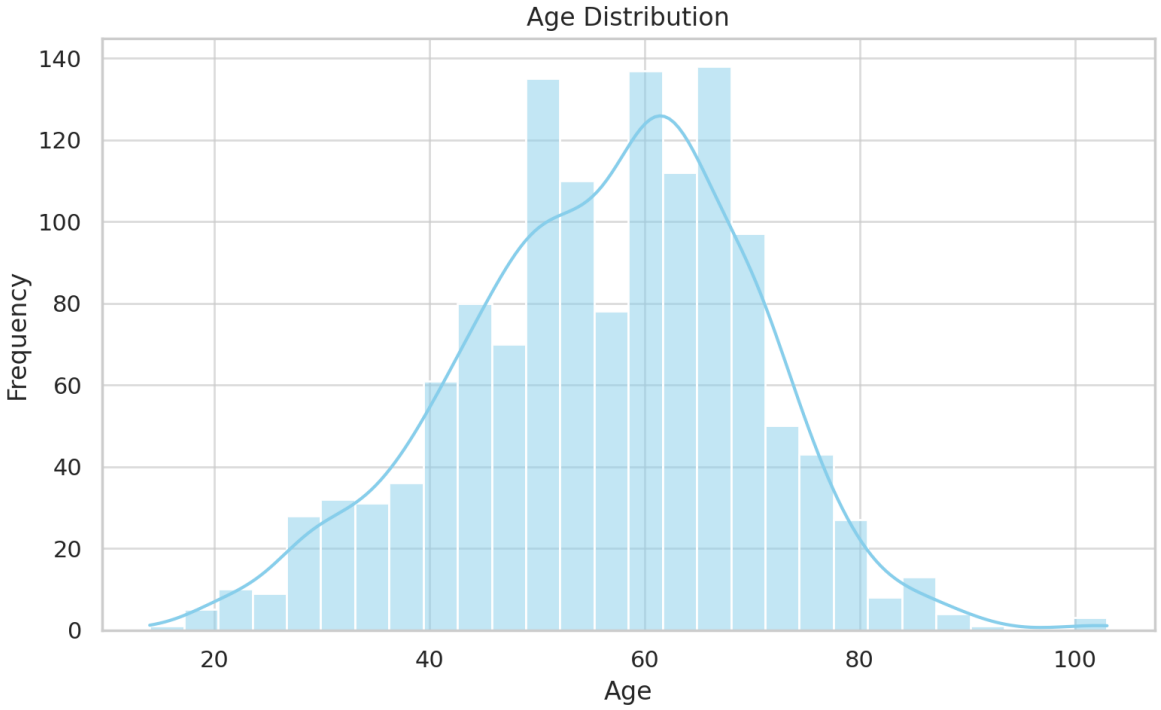
# OUTPUT:


Correlation Heatmap of Numerical Features
Age 1.00 -0.09 -0.02 0.02 0.00 -0.00 0.02 0.09
Gender -0.09 1.00 -0.03 0.01 -0.01 0.01 0.02 0.07
Heart rate -0.02 -0.03 1.00 0.01 0.11 -0.02 -0.01 0.01
Systolic blood pressure 0.02 0.01 0.01 1.00 0.59 0.02 -0.02 0.04
Diastolic blood pressure 0.00 -0.01 0.11 0.59 1.00 -0.03 -0.02 0.04
Blood sugar -0.00 0.01 -0.02 0.02 -0.03 1.00 0.05 0.02
CK-MB 0.02 0.02 -0.01 -0.02 -0.02 0.05 1.00 -0.02
Troponin 0.09 0.07 0.01 0.04 0.04 0.02 -0.02 1.00
Age
Gender
Heart rate
Systolic blood pressure
Diastolic blood pressure
Blood sugar
CK-MB
Troponin
1.0
0.8
0.6
0.4
0.2
0.0


Count of Diagnosis Results
count
800
700
600
500
400
300
200
100
0
negative
positive
Result


Troponin Levels by Result
Troponin
10
8
6
4
2
0
negative
positive
Result


Heart Rate vs Systolic BP
Systolic blood pressure
225
200
175
150
125
100
75
50
0
200
400
600
800
1000
Heart rate
Result
negative
positive


Age Distribution
Frequency
Age
0
20
40
60
80
100
120
140
20
40
60
80
100