

Principles of Data Science – 5530

Assignment 1

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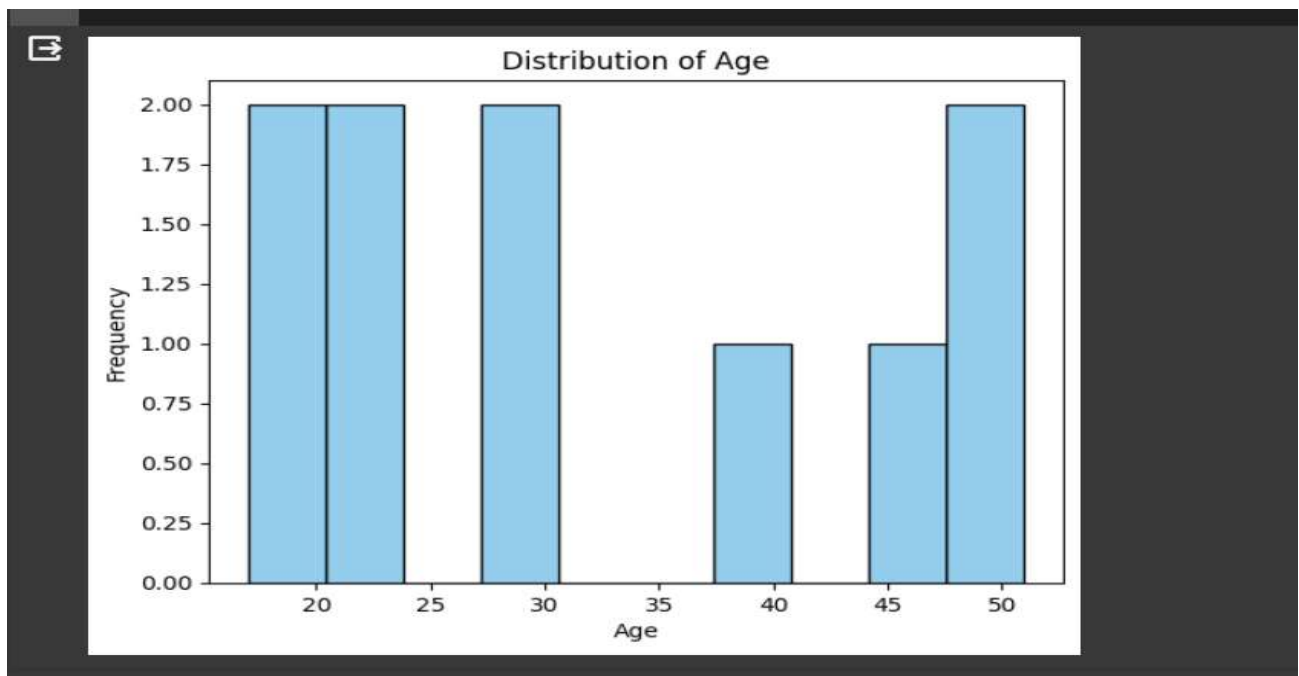
Questio1: Frailty Dataset

Plot 1:

The histogram illustrates the distribution of Age among the sampled population, with Age values plotted along the X-axis and the frequency of each Age group represented on the Y-axis.

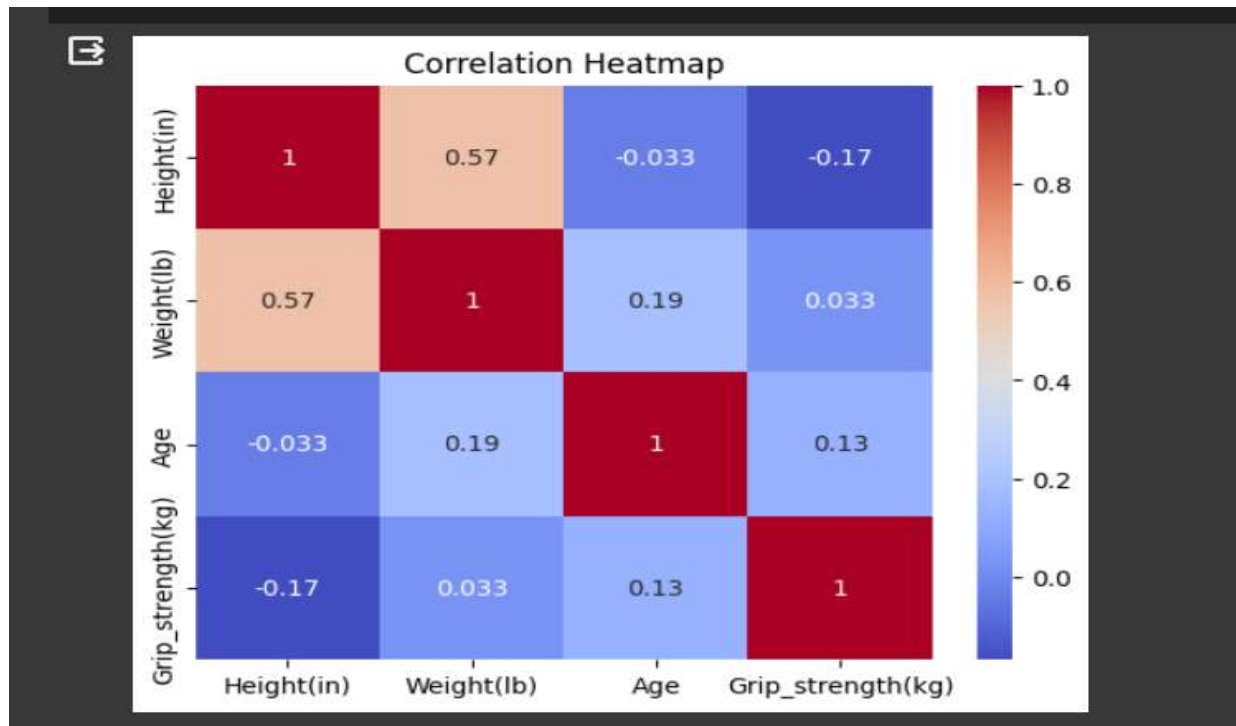
X-axis: Age

Y-axis: Frequency



Plot 2:

A correlation heat map illustrates the relationships between height, weight, age, and grip strength, with each variable represented on both the X-axis and Y-axis. This visualization allows for a comprehensive understanding of how changes in one variable correlate with changes in another, providing insights into potential patterns within the dataset



Plot 3:

In the pairplot, grip strength, age, weight, and height are plotted on the Y-axis, while height, weight, and grip strength are depicted on the X-axis. This arrangement examines the relationships among these variables, showing insights into any potential features or patterns between them.

```
sns.pairplot(data=clean_data, vars=['Height(in)', 'Weight(lb)', 'Age', 'Grip_strength(kg)'], hue='Frailty', palette='Set1')
plt.title('Pairplot of Numeric Variables by Frailty')
plt.show()
```

