

# Principles Of Data Science

Student Name : Krishna Teja

Student ID : 16356387

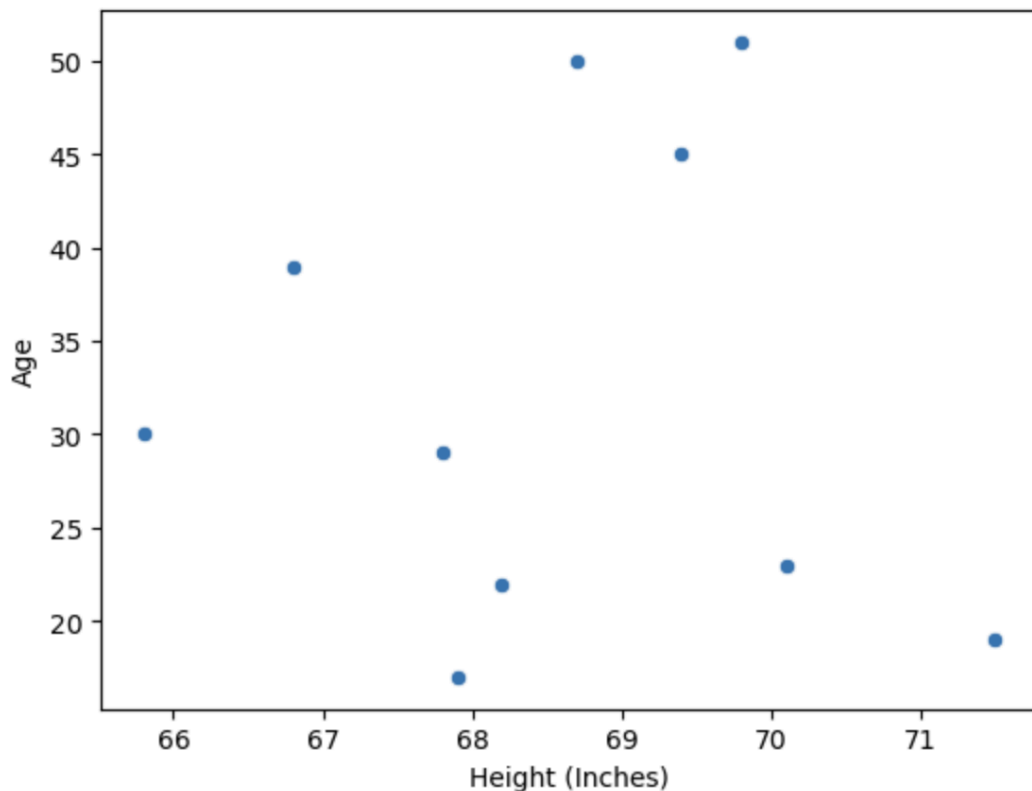
Question 1:

Plot 1:

In this scatter plot, the data points indicate people's heights. The x-axis (horizontal line) represents heights in inches, while the y-axis (vertical line) shows ages in years.

Each dot on the graph represents a single person. For example, a dot at (70, 40) indicates that there is one individual in the data set who is 70 inches tall and 40 years old.

The graph demonstrates that there is a positive relationship between height and age. This suggests that taller persons are more likely to be older. However, it is vital to understand that correlation does not imply causality. Just because two things are connected does not imply that one caused the other.

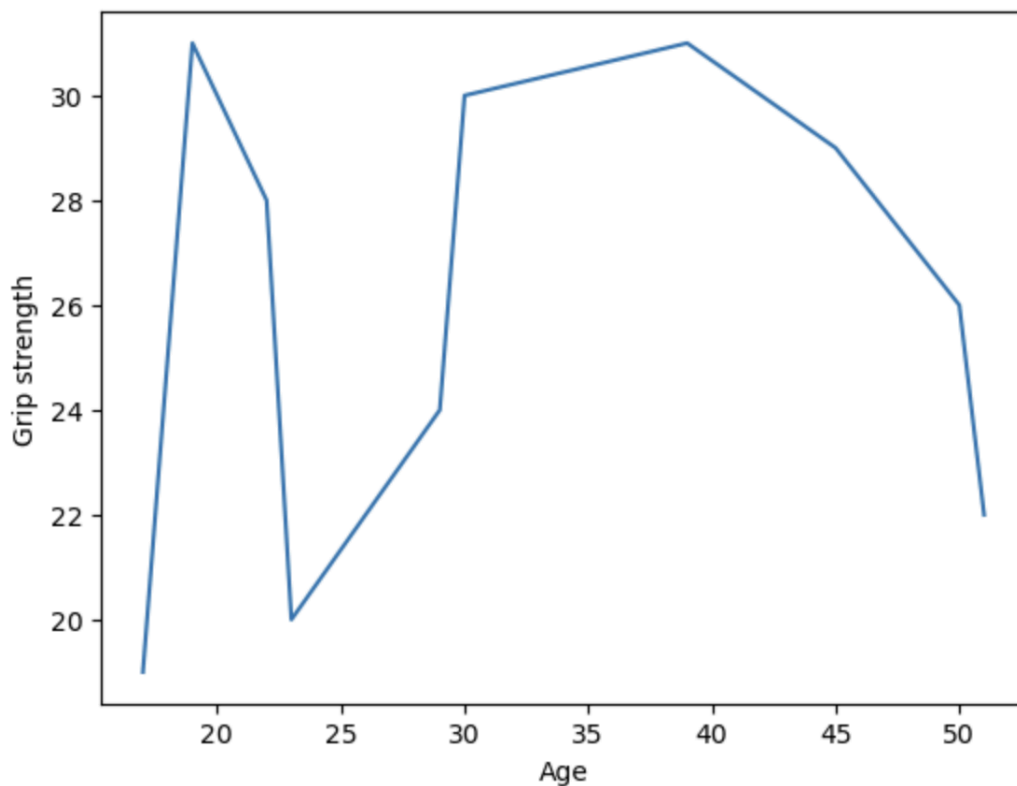


Plot2:

It appears that grip strength is strongest in adults in their early 30s, and then steadily falls with age.

Grip strength is a measure of how much force you can apply with your hands. It is a significant measure of general health and fitness since it affects your ability to perform numerous daily tasks, such as opening jars, getting out of a chair, and carrying groceries.

Grip strength declines with age due to a variety of causes such as muscle mass loss, nerve injury, and arthritis. However, you may assist preserve your grip strength by engaging in strength training activities and maintaining a nutritious diet.



Plot3:

significant positive correlations: Values around 1 (highlighted in red) imply significant positive correlations. For example, the heatmap indicates a high positive link between age and frailty, indicating that as people age, they grow frailer.

significant negative correlations: Values around -1 (highlighted in blue) imply significant negative correlations. The heatmap does not reveal any significant negative relationships.

Weak correlations: Values around zero (represented in white) imply weak relationships. For example, the heatmap reveals a poor connection between height and frailty, indicating that there is no apparent association between a person's height and their frailty level.

