**df. Describe ()**

In The height column the mean of height is approx. 68.6 inches. Whereas its ranges 65.8 in to 71.5 in

The standard deviation is approx1.67 inches. Explain that heights are relatively close to mean.

Whereas weight is approx. 131.9lbs standard deviation is 14.23lbs

Mean Age is around 32.5 years. Standard deviation is around 12.86 years.

Mean of Grip Strength is 26kg. standard deviation is 4.52Kg.

**Df. corr() :**

Height & Weight: we can observe the positive correlation between height and weight with the coef of 0.5715.

there is a weak negative correlation for Height & Age, Height & Grip, coefficient of -0.0326, -0.1677 respectively though there is a lower grip strength in taller persons.

There is a weak positive correlation with weight and age with coeff of 0.1909.

**Mean of Frailty**

Frailty = 1have a somewhat lower mean age than who is not frailty adults and have greater mean in height, weight when compared to whose ha no Frailty.

* When Frailty = 1, the mean grip is approx. 23.5 kg.
* The mean height is approx. 68.98 inches.
* When Frailty = 0, the mean grip is approx. 27.67 kg.
* The mean weight is approximately 126.00 lbs.

**Standard Deviations of Frailty:**

* When Frailty = 1, the standard deviation grip strength is approx. 3.42 kg.
* The standard deviation of weight is approx 3.40 lbs.
* When Frailty = 0, the standard deviation grip strength is approx. 4.63 kg.
* The standard deviation of weight is approx. 15.91 lbs.

**T-statistic:**

The t-statistic is around 1.53.

P-value:

The p-value for the t-statistic is around 0.164.

The p-value (0.164) is bigger than the generally used significance level of 0.05, thus we cannot reject the null hypothesis. It shows there is no significant difference between grip strength for either frailty or non fragilty.

**Descriptive Statistics**: - Height (Inches): - Average: 68.6 inches

Standard deviation is around 1.58 inches.

Weight (LBS):

Mean weight: 131.9 lbs. - Standard deviation: 13.50 lbs.

Grip Strength (Kg): approximately 12.20 years; - Standard Deviation: approximately 12.20 years; - Mean: about 32.5 years

Average: roughly 26.0 kilogram

The standard deviation is about 4.29 kg.

Age (Years):

Mean: Approximately 32.5 years

Standard Deviation: Approximately 12.20 years

Grip Strength (Kg):

Mean: Approximately 26.0 kg

Standard Deviation: Approximately 4.29 kg

**Correlation Analysis:**

Height and Weight:

Correlation coefficient: Approximately 0.57. There is moderate positive correlation with height and weight.

Age and Grip Strength:

Correlation coefficient is approx 0.13. There is weak positive correlation with age and grip strength.

T-Test Results of Weight:

T-Statistic: approx 1.79

P-Value: approx 0.11

We have no option to reject the null hypothesis because the p-value (0.11) is higher than the significance level of 0.05. This suggests that there is no noticeable weight difference between those who are considered weak and those who are not.