

DS 623 PE08

You will find a simpler PE in module 8 as this is a Thanksgiving weekend.

Suppose you are given a dataframe as a user input. It consists of three columns, where each column represents a variable such as height, weight, or age. Provide a code that generates summary statistics of the dataframe.

***Note you must calculate summary statistics using a formula instead of using a built-in function (i.e., `df.mean()` or `df.var()`).**

Input

- a dataframe that consists of three columns containing numeric values.

Output

- Mean and variance of height:
- Mean and variance of weight:
- Mean and variance of age:

(Optional)

Calculate a 3x3 covariance matrix where each diagonal element represents a variance and off-diagonal element represents a covariance.