

Exercise 2.5

The fitness data (the `sundhed.txt` file) are from a study of how fast the body can absorb and use up oxygen. Data were collected as 31 subjects (in three groups, not considered here) were passed through an exercise run:

Variable	Description
Age	Age in years
Weight	Weight in kg
Oxygen	Oxygen consumption
RunTime	Minutes to run 1.5 miles
RestPulse	Heart rate while resting
RunPulse	Heart rate while running
MaxPulse	Maximum heart rate

The order of the data in the txt file correspond to the above sequence.

1. Estimate the correlations between the variables. Are there any significant ones?
2. Find the partial correlations between variables conditioned on `Age` and `Weight`. Are there interesting differences to the above?
3. Make a plot of oxygen as a function of runtime. Does the plot look as expected?