Data Analysis Project #3

STA 5V85

Spring Semeter

Project Description. The table below contains the data from a study of the relation of the amount of body fat to several possible predictors based on a sample of 20 healthy females aged 25-34 years. The possible predictors are triceps skinfold thickness, thigh circumference, and midarm circumference. The amount of body fat was determined via a cumbersome and expensive procedure requiring the immersion of the subject in water. Consequently, a model for body fat using some of all of the more easily determined predictors is of interest.

Subject	Triceps Skinfold Thickness	Thigh Circumference	Midarm Circumference	Body Fat
1	19.5	43.1	29.1	11.9
2	24.7	49.8	28.2	22.8
3	30.7	51.9	37.0	18.7
4	29.8	54.3	31.1	20.1
5	19.1	42.2	30.9	12.9
6	25.6	53.9	23.7	21.7
7	31.4	58.5	27.6	27.1
8	27.9	52.1	30.6	25.4
9	22.1	49.9	23.2	21.3
10	25.5	53.5	24.8	19.3
11	31.1	56.6	30.0	25.4
12	30.4	56.7	28.3	27.2
13	18.7	46.5	23.0	11.7
14	19.7	44.2	28.6	17.8
15	14.6	42.7	21.3	12.8
16	29.5	54.4	30.1	23.9
17	27.7	55.3	25.7	22.6
18	30.2	58.6	24.6	25.4
19	22.7	48.2	27.1	14.8
20	25.2	51.0	27.5	21.1

Project Guidelines. One person for the group should turn in the report, *R* and *RMarkDown* code, and presentation slides. Everyone should turn in a peer evaluation form. All documents should be turned in by uploading them to the shared Box folder named `Data Analysis Project 3`.

- The name of every group member must be on each item submitted (computer code, analysis report, and presentation slides).

- Use *R* to analyze the data.

- Using *RMarkDown* write a report summarizing your results. The report should be professional and suitable for use in a journal article. Include any graphs, tables, or analyses you deem appropriate. Keep in mind that efficient, non-ambiguous writing is important and that journals will not publish irrelevant information.

- To create your presentation slides, use *Prezi*, *Canvas*, *Google Slide Show* or some other freely accessible online package for creating slides for presentations.

- By the due date on published on *Canvas*, everyone in the group should be ready to present their part of the group's analysis.

- By the due date published on *Canvas*, the group's work should be submitted to the shared Box folder. This includes the written report, *R* and *RMarkDown* code, and presentation slides.

- By the due date published on *Canvas*, submit the completed "Peer Evaluation Form" for each person in your group. Include the name of the person being evaluated in the filename that you upload to the shared Box folder; for example, `Smith-Peer-Evaluation`.