stk310 PRACTICAL ASSIGNMENT A1

The file videos.csv on clickUP contains information regarding 26 music videos randomly selected from the laptop of paul van staden.♫

The details of the dataset are:

- **Artist or Band:** Name of artist or band performing the song in the music video.
- **Song Title:** Title of the song performed in the video.
- **File Size:** Size of the music video file in megabytes (MB).
- **Song Length:** Length of the song in seconds.
- **Video Quality:** Picture and audio quality of the video (High or Low).

Use appropriate procedures and/or functions in SAS and in R to answer the following questions.

(a) Read the dataset into SAS and into R.

(b) Calculate the average file size and the average song length as well as the standard deviations of these two variables.

(c) Use the Shapiro-Wilk normality test to test whether the distributions of the file sizes and the song lengths are normal.

(d) Compare the averages and standard deviations of the file sizes and of the song lengths for the 13 videos with high picture and audio quality with the averages and standard deviations of the file sizes and of the song lengths for the 13 videos with low picture and audio quality.

(e) Draw box plots to compare the distributional properties of the file sizes and of the song lengths between the 13 high quality videos and the 13 low quality videos.

(f) Use *t*-tests to test whether the average song length of the 13 high quality videos differs significantly from the average song length of the 13 low quality videos and to test whether the average file size of the 13 high quality videos differs significantly from the average file size of the 13 low quality videos.

(g) Draw a scatter diagram of the file sizes against the song lengths.

(h) Repeat (g), but distinguish on the scatter diagram between the high quality and low quality videos.

♫ It is not necessary to watch any of the videos to answer the questions in the assignment. In fact, it is suggested that you do not watch the videos ...