1. Do I need to perform Outliers Treatment for Part 2: PCA?

A. No, it is not required to perform outliers treatment.

2. Do I need to check ANOVA assumptions?

A. Please assume that the data qualifies all the assumptions for ANOVA. No need to check for assumptions.

3. What do you mean by "Business Implications" of PCA?

A. Please write about the interpretations of the PCs wrt original features as taught in content videos.

4. Do I need to treat outliers in the ANOVA case study?

A. No, it is not required.

5. How many files do I need to submit?

A. 2 files -

1 Business Report containing both the ANOVA & PCA answers (see instructions for more info)

2 Jupyter Files (ANOVA & PCA)

6. What does this mean "Perform PCA and export the data of the Principal Component (eigenvectors) into a data frame with the original features"?

- Perform PCA
- Get the eigenvectors
- Put the eigenvectors into a data frame with All the PCs and Original Features.

7. Should I show the boxplot as one plot for variables?

No. Always make separate boxplots when scales of variables are very different from each other.

8. What should I do here "2.3 Comment on the comparison between the covariance and the correlation matrices from this data. [on scaled data]"?

Compare both the matrices on scaled data and write your inferences. You should show both of the matrices in the business report alongside inferences.

9. Can I put code in Business Report?

No. You should not put code in the report. But you should put all the outputs & plots in the business report along with their respective inferences as per the rubric given.

10. What is a Business Report?

A business report is a word document where all the questions are answered sequentially with all the relevant plots and outputs and their respective inferences. The business report word document can be converted to a pdf later and submitted. Both the .docx and .pdf are accepted.

Try to make your Business Report as professional as possible. It should have a proper Title Page, Table of Contents, Table of Figures, Proper Problem Headers (as in rubric), and respective answers under each. Even formatting should be taken care of. Just like you are submitting your Graduation Final Project Report.

11. What should I do in the EDA part?

Take every variable and perform univariate analysis, take every pair and perform bivariate analysis, and then multivariate if feasible. You can refer to EDA Content in week-2 AS for the basics of univariate and bivariate/Multivariate analysis.

12. Write down the explicit form of the first PC?

Write down linear equations in general form or actual form.

13. Extract the eigenvalues and eigenvectors?

eigenvalues are **pca.explained_variance_ratio_** & eigenvectors are **pca.components_**