STA3024 Project Phase C

Phase C of your project is meant to be the project capstone which ties together activities from the previous phases, adds statistical inference, and then draws conclusions. This will take the form of a presentation to the class. Slides with talking points, appropriate SAS output tables, and graphics should be created to support your talk to the class. The presentation should be brief and considered an executive summary of your project. You should attempt to weave a story from start to finish using your data analysis.

Organization

Plan on providing the class an overview of the project and your talk should include five elements:

1. **Motivation for the Study**
   - Provide a brief description as to why your study is of interest and/or its potential benefit.
   - Explain what your research question(s) are.
   - This should be a talking point summary of what you have already completed in Phase A.

2. **Data Explanation**
   - Describe the source the data and the way it was produced or collected.
   - Explain how you got your data into SAS.
   - Describe the nature of your data (variable definitions, number of observations, etc.)
   - This should be a talking point summary of what you have already completed in Phase A.

3. **Graphical and Numerical Summary**
   - Include a few key one-variable graphics (box plots, histograms, bar charts) to convey data distributions.
   - Include a few key two-variable graphics (bar charts w/ responses, scatterplots, etc.) to convey data relationships.
   - Supporting numerical summaries (means, medians, standard deviations, etc.) may also be included.
   - The goal is to provide an intuitive description of the variable relationships that exist in your data.
   - The figures here should copied from what you have already completed in Phase B and pasted into your slides.

4. **Statistical Tests or Model**
   - This is your data analysis section and is based on some kind of statistical inference performed.
   - For comparing your responses for different groups or categories consider a statistical test (e.g., two-sample t-test, ANOVA). Include only key SAS output and for the test used and give a brief interpretation.
   - For relating a quantitative predictor(s) to your response consider a correlation analysis and/or a regression model. Again, appropriate analyses are to be generated in SAS with only pertinent output pasted into your presentation. Concise interpretations should be given.
   - This work was not completed in any previous phase and needs to be generated for this element..

5. **Conclusions Drawn**
   - Use the statistical results to draw some conclusion about your application.
   - Your discussion should be in non-statistical terms, that is, your findings should be communicated in such a way that a person who has never had a statistics class can understand the results.

In-Class Presentation Guidelines (Worth 40 points)

The class presentation will focus on a brief executive summary of all project activities.

- Plan on a 4-minute presentation that addresses all five elements described above: motivation, data explanation, descriptive graphics/statistics, statistical tests and models, and conclusion.
- Each team member must speak and provide significant contributions to the presentation.
- Visual aids are important. SAS output should be displayed -- graphics are especially effective.
- A PowerPoint-style presentation is expected. Make sure your type is large enough (18 point or higher) and that slides are not too dense with words.
- You should include an example of your SAS code that demonstrates how you produced an essential element to you project analysis.
- Make sure you explain your conclusion given in the context of the problem, is in non-statistical terms and is a consequence of your data analysis.

Your grade will be based on completeness, clarity, technical correctness (both in SAS and the statistical application), originality/creativity, and support materials (visual aids, use of software, etc.).

Required Material for Upload

The following should be uploaded to Blackboard on the day of your presentation:

1. Your presentation slides.
2. All of your SAS code in one SAS program file.
3. A single page document which includes the following certification by all team members:

We, the project team members, certify that the percentage of the effort listed by each of our names below is an accurate account of the original effort contributed by each team member in the producing of this project and report.

Name (Printed)	Percent of Total Effort		Statistics Major?
Jessica Curley	25	%	Yes / No
Guillermo Shick	25	%	Yes / No
Dylan Smith	25	%	Yes / No
Jeffrey Winny	25	%	Yes / No