CS 301 - Project Deliverable 3 Expectations

You are expected to continue writing the next section on the **same** document you used for Deliverables 1-2. Each Deliverable will cumulatively add on to the previous ones. This is factored in as a small portion of your project grade. This section should include the changes that were suggested after grading the deliverable. All code for this Deliverable should be included and updated in Section (1h). As a reminder, below are the included sections:

1) **Section 1: Overall Information**
    a) Title of Project
    b) Overview / Summary
    c) Problem Definition (Scope)
        i) Identify 3 questions which the group seeks to answer
    d) Period of Analysis
    e) Contact Information (Vendor of Data Set)
    f) Documentation (Given by Vendor)
    g) Sample Data
        i) URL Link to Set(s)
    h) Code - Link to the project repo on GitHub - DO NOT paste raw code here.
2) **Data Documentation Section 2: Data Exploration**
    a) Data Collection
    b) Column Descriptions
    c) Data Processing
3) **Data Documentation Section 3: Data Analysis** (**Due 11/20 11:59PM EST**)
    a) Statistical Analysis & Charts

    Each of the group's identified questions from Section (1b) must be answered using at least a minimum of 1 analysis method, which includes a chart, and corresponding set of statistics (calculations). Each chart must contain a title, y-axis label, x-axis label, legend, and description of the variables used (caption).

    All of the below are not required, and this is not a finite set of statistics to include. Feel free to include any relevant statistics which help answer the questions from Section (1c).

    1) Univariate Data Analysis Methods:
        a) Categorical:
            i) Frequency Distribution Tables
            ii) Bar Charts
            iii) Pie Charts
        b) Numerical:
            i) Frequency/Spread (Histogram)
                (1) Center: Mean

(2) Dispersion: Standard Deviation / Number of Deviants / Variance
(3) Type of Distribution / Skewness

ii) Box Plot:
(1) Center: Median
(2) Dispersion: Range, Maximum, Minimum, Quartiles, Interquartile Range, Outliers

2) Bivariate Data Analysis Methods:
a) 2 Numerical Variables:
b) Scatter Plot
c) Correlation Coefficient / Line of Best Fit
d) Heatmap

a) 1 Categorical and 1 Numerical:
i) Bar Chart

ADDITIONAL REQUIREMENTS:

1) Each group member must submit a Contribution Document. Maximum 1 double sided page, single spaced, size 12, Times New Roman. I expect that you discuss precisely the work you put into this stage of the project. You should include as much detail as you think is needed such that I can fully understand your work towards this deliverable. In addition, if you have any complaints / praises to specific teammates you would like to communicate, please do so. Please refrain from using any harsh language.
    a) This document should not be a group effort. I trust that each individual group member will work on this portion alone, and communicate to me their own honest opinions. This way, I know if I need to communicate to the group about sharing responsibilities, or if I need to adjust the points I give to any one particular group member.
2) Each group member is required to submit the Contribution Document on Canvas as a PDF.
3) Only one group member is required to submit the Group Deliverable Document on Canvas as a PDF, however if more than one person submits, you will not receive points off.
4) All code must be submitted in section (1h) of the Group Deliverable Document. It must also be zipped together into one folder and uploaded to Canvas.
5) For the Group Deliverable Document, you must produce at least one full page of text. The body of each section should be single spaced, Times New Roman font size 12. There is no specified format for the Document as a whole, however the Sample Data Documentation (on Canvas) is a good start.

6) If there are any screenshots you would like to include in the documents, please do so. However, you are required to cite where the image came from. If you took a screenshot of something you created, your citation can be a brief description of how you produced the image. If the screenshot is from Google or some other website, please provide the link to the screenshot. You do not have to use formal citations here.