CS 301 - Project Deliverable 4 Expectations

You are expected to continue writing the next section on the **same** document you used for Deliverables 1-3. 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**
   a) Charts
   b) Statistics
4) **Data Documentation Section 4: Results / Conclusion** (Due 12/3 5:59PM EST)
   a) NOTE: All of the information at this point in the group document must be completed to the fullest extent. In addition, the group will present during class time. There is a hard limit to 15 minutes **including** Q&A - you will be cut off if you don't finish in time. It is recommended that you present for max 12 minutes and leave 3 minutes at the end for questions. Presentations should have the following flow:
      i) Title of project with brief overview
      ii) Question 1 (Background -> Exploration -> Analysis -> Results)
      iii) Question 2 (Background -> Exploration -> Analysis -> Results)
      iv) Question 3 (Background -> Exploration -> Analysis -> Results)
      v) Overall conclusion including potential for future work

b) Answers
    i) What are your answers to the questions from Section (1b)?
        (1) Are you satisfied with the answers?
        (2) Is there anything you would have changed about the analysis process to help come up with the answers?
        (3) How did you confirm that these final answers are correct?
    ii) As you interpret your analysis, keep in mind that you cannot ever prove a hypothesis true: rather, you can only fail to reject the hypothesis.
        (1) Does the data answer the original question? How?
        (2) Does the data help defend against any objections? How?
        (3) Are there limitations to the conclusions, any angles haven't considered yet?

c) Future Work
    i) What future work would there be for this project, if any?
    ii) Come up with a description of what *possible* future work other people can do, and suggest what they would need to get started working off of your analysis.

d) Machine Learning (Extra Credit) This grade is added to the total project grade.
    i) Model Selection (3) - Which model did you select? Why?
    ii) Training / Test Data (3) - How did you split the data?
    iii) Criteria to predict (3) - What did you identify for prediction? Why?
    iv) Labels (3) - Is your data labeled? Why or why not? If so, what are they?
    v) Accuracy (3) - What accuracy did you get? Why is it high/low?

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.