Chapter 1 Project: Exploring Data

1. Go to [www.tuvalabs.com](http://www.tuvalabs.com) and search for a grade appropriate data set to explore. SIGN UP class code: **QK9W5**
2. Click through the various attributes and graph types and develop questions you can potentially answer using inference from the data.\*
3. Identify the “Who” of the data (the individuals), and then identify the “What” (which variables are categorical and which ones are quantitative).\*
4. Create a visual for your data using each of the graph types (there will be 5: Dot, Pie, Bar, Histogram, Boxplot). You can change/add attributes to the axis for each graph. Download the graph and insert it into a word document. Provide, at minimum, a 1 paragraph typed analysis of each graph.
5. Lastly, provide approximately 1 page concluding narrative of the data set you explored. Revisit the questions you hypothesized in step two, and draw any conclusions from the analysis in your narrative. No graphs or visuals are needed for this part.

\*Steps 2 and 3 may be submitted handwritten or typed

| Score Levels | Accuracy of Graphical/Numerical Summary Techniques | Quality of Statistical Comparison | Organization, Transition, Appearance | English Mechanics |
| --- | --- | --- | --- | --- |
| 4 | * Used all required statistical techniques correctly and appropriately. All minor points are included * 5 graphs | * The student thoroughly and accurately compares sets of data based on the statistical techniques in the context of the data. Correct terminology is used throughout. | * Information is clearly focused in an organized and thoughtful manner * Information is constructed in a logical pattern to support the solution * Paper is double spaced, Arial size 12 font | * No spelling, grammatical, or punctuation errors * High-level use of vocabulary and word choice |
| 3 | * The student has generally used each of the required statistical techniques correctly and appropriately. There may be minor omissions or errors. | * The student accurately compares the data sets based on statistical techniques employed in the context of the data and generally uses correct terminology. There are minor omissions/errors. | * Information supports the solution to the challenge or question | * Few (1 to 3) spelling, grammatical, or punctuation errors * Good use of vocabulary and word choice |
| 2 | * There are significant errors in in one or more graphs and analysis or a plethora of minor mistakes | * The student produces a generally accurate comparison of the datasets based on statistical techniques employed with some sue of appropriate terminology or with inadequate connection to context. A key omission or inaccurate conclusion may have been made. | * Project has a focus but might stray from it at times * Information appears to have a pattern, but the pattern is not consistently carried out in the project * Information loosely supports the solution | * Minimal (3 to 5) spelling, grammatical, or punctuation errors * Low-level use of vocabulary and word choice |
| 1 | * The student has made an attempt to use the graphing tools, but the analysis is flawed in some major way. | * The student attempted to use statistical techniques employed to compare the datasets, but missed some key ideas. Terminology and reference to content are inadequate or missing. | * Content is unfocused and haphazard * Information does not support the solution to the challenge or question * Information has no apparent pattern | * More than 5 spelling, grammatical, or punctuation errors * Poor use of vocabulary and word choice |