The very last part of this project consists of submitting a technical report concerning all aspects of the project. Since most of the statistical work is already done, you now need to write your findings and disseminate your results to the world (or at least me). This report must contain the following.

Title (and please don’t use the words Stat xxx, Course, and Project in it. Pretend that you have done this for something outside of class)

1. Introduction:

Give a brief description of the problem and the goals in solving it. You should also introduce the dataset(s) that we are using. You should also provide a brief outline of the remainder of the report in the final sentence of the introduction.

1. Methodology:

Here is where you discuss the development of your methods (including, why you though they would work) and how to use them to conduct the hypothesis test we are interested in. This is probably the most important part of the project, so don’t skimp on the details. You may use Songs A, B and C as examples to illustrate your procedure in this section.

1. Power Study:

This section should contain a description of the power study from Part 4 of the project, report the results (in a table) and describe your findings.

1. Application:

In this section, you will apply your methodology to the actual songs. Be sure to provide some type of description of what your results say about the hypotheses and the song(s).

1. Discussion:

This is essentially the conclusion to your report. Summarize the major findings/aspects of your method, describe scenarios where your method works well and discuss any shortcomings to your method. You may also describe any further ideas you have or other scenarios (which may not just include Guitar Hero) where you believe your methodology could be useful.

Appendix:

Please submit the commented R code (i.e., functions) used to

1. Calculate your estimate
2. Obtain a p-value

A few notes:

1. Your project will NOT be graded on how well your methodology performed for the actual songs and scenarios used in the power study. There are many different types of scenarios possible; it could be that your method works well for something we didn’t specifically investigate.
2. Instead, you will be graded on how well you communicate your ideas to me (this does include using correct spelling and grammar). It is safe to assume that the intended audience would be someone who has had Math Stats, but would not be familiar with the specifics of what you did. My general recommendation would be, if in doubt, assume someone doesn’t know what you are talking about and thoroughly describe it.
3. You must use section headings. I want to clearly be able to see where each section starts.
4. There is no minimum or maximum page limit. Long manuscripts will not automatically be considered better than shorter reports. If you feel comfortable that you have included everything that is necessary, then whatever length it is will be fine. However, that said, please try to keep it below 10 pages ☺.
5. Remember to make full use of what you wrote in Part 1 of the project as I suspect that much of Section 2 will be very closely related to it.