**Project Title:** title goes here  **Final Project Report for CS 175, Winter 2016**

**List of Team Members:**Name1, StudentID1, uci\_email\_address  
Name2, StudentID2, uci\_email\_address  
Name3, StudentID3, uci\_email\_address

**Your report will likely end up being about 6 to 8 pages long.**

**The sections that we expect the most new material for, and where I will focus on the most for grading, are Sections 4, 5 and 6, since these are the sections where you should have the most new material to report relative to earlier reports. Don’t ignore the other sections, but pay particular attention to Sections 4, 5, and 6.**

**1. Introduction and Problem Statement (1 or 2 paragraphs)   
[This can be similar to what you wrote in your proposal or progress report]**A brief summary that summarizes your project and your main results (essentially like an abstract for a technical paper).Define precisely what problem your project addressed. For example if your project is multi-label document classification then you would clearly define what multi-label document classification is, any assumptions you are making in your problem setup. Write this section so that anyone with a degree in computer science could understand clearly what you are talking about.

**2. Related Work: (1 or 2 paragraphs)**Write 1 to 2 paragraphs describing what methods/algorithms have been used in the past to address this problem. Provide a few references to research papers or articles that describe previous work on this problem. Describe how your project fits in the context of earlier work, e.g., “we are systematically evaluating the performance of standard methods (as described in X, Y, and Z) on several data sets, rather than developing new algorithms.”

**3. Data Sets [at least 1 page]  
[This should have considerable detail – make sure you include a good description of your data set(s) – figures and tables are strongly encouraged. Can be an updated version of what you wrote before.]**Describe what data set(s) you used in the project – include references (e.g., URLs) for where you obtained the data if you can. Feel free to include figures in this section, e.g., a histogram of document lengths.

**4. Description of Technical Approach [at least 1 page]  
[Can be an updated version of what you have written in earlier submissions….]**Provide a description of the methods and algorithms you are using on the project. For example, if your project involves comparing different classification algorithms for document classification then in this section you would list and briefly mention the classification algorithms you plan to use in your project (e.g., naïve Bayes, logistic regression, support-vector machines, neural networks, etc). Be as clear as you can about what versions of algorithms you plan to use, e.g., if you plan to use naïve Bayes, which version will you use (Bernoulli or Multinomial)? Or what type of neural network? Again, write this section so that anyone with a degree in computer science could understand clearly what you are talking about.

This would be an excellent section to show a block diagram that shows how the different pieces of code work together, e.g., a pipeline of document preprocessing steps, etc.

**4. Software [at least ½ a page]  
[Note: this is intended to be a high-level description of your software, not the code itself. Separate this into subsections of (a) code or scripts you have written, (b) code or scripts written by others that you used in your project (with attribution/references)]**Provide a list of the major pieces of project software and their functionality (general input/output characteristics), both for (a) code you wrote, and (b) code from other people that you used.

**5. Experiments and Evaluation [at least 1 page, preferably 2 or 3]  
[This is a critical part of your final report and the section where we expect to see the most new material compared to your progress report (except for the occasional case where a team had already done a lot of experiments for the progress report)]**Describe in fair detail both (a) how you set up your experiments, including what metrics and methods you used for evaluation (test sets, cross-validation, user studies, etc), and (b) what results you obtained (ideally in the form of tables, graphs, etc), e.g., comparing the accuracies different methods and baselines. In this section you can add to your “basic results” by reporting additional comparative results on sensitivity of your approach to different algorithmic choices, e.g., how does performance depend on vocabulary size? On document length? On whether you remove stop-words or not? Does including parts of speech help? And so on.

**6. Discussion and Conclusion [at least ½ a page]**Discuss what insights you gained from the project. What did you learn about the algorithms you worked with? what results agreed with your expectations? What did not agree with your expectations, i.e., was surprising? What are the major limitations of current approaches to the problem you are trying to address? If you were in charge of a research lab, what ideas and directions might you invest in over the next year or two to try to make major progress on this problem? Feel free to be speculative in discussing possible future directions.