# CS552 Final Project
Team Name
Team Members

**Design Overview**
– Less than a page describing overall what the project is about and what you did. Discuss each of the pipeline stages and cache design. Diagrams are not necessary.

– (This part is optional. You will not lose points for skipping this. Nor will you get extra credit for including this.) Design overview which should include your high-level processor schematics. Your design hierarchy must be clear. One high-level schematic that shows only the high-level pipeline is too little detail. Showing schematics for every MUX is too much. Use your discretion. It is OK to scan hand-drawn schematics or attach them to the end of the document with a clear note in the document explaining what is where. All your material must be in one single PDF or .DOC file. (Maximum 3 pages)

– (This part is optional. You will not lose points for skipping this. Nor will you get extra credit for including this.) A state diagram for any state machine controllers in your design. All other controllers should include a high-level textual description. (This also can be short, maximum 4 pages)

**Optimizations and Discussions**
– Brief discussion of optimization implemented (Maximum 0.5 pages)

– Discussion about failures, if any (Required for partial credit): A discussion of what does not work and why. Also include what you would have liked to implement given more time. For each part of the implementation that does not work, turn in an annotated output in the form of a trace or script run that clearly shows the error. Give your thoughts as to why the error occurs and what could be done to fix it. (without counting traces this section should not exceed half a page)

**Design Analysis**
– A table listing the possible hazards that arise in your pipelined design and the number of stall cycles that each hazard incurs. (Maximum half a page)

– A brief discussion of your cache design that explains the number of cycles for a cache-hit, cache-hiss (with eviction of a line), cache-miss (without any eviction). (Maximum half a page)

**Conclusions and Final Thoughts**
– A conclusion outlining what you learned by doing this project and what you would have done differently. (Maximum half a page)

**Appendix**
Table describing additional assembly programs you wrote to test the processor. No assembly listing or source code necessary. 1 or 2 sentences describing program is sufficient. If you haven't written any programs, say 'no programs written'.