**CSE 373 Homework 5 Write up**

**Who is in your group (Give name, UW NetID & student number of each person)?**

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**• Describe the worst-case asymptotic running times of your methods** adjacentVertices**,** edgeCost**, and** shortestPath**. In your answers, use |E| for the number of edges and |V| for the number of vertices. *Explain and justify your answers.***

**• Describe how you tested your code.**

**• If you worked with a partner:**   
**a) Describe the process you used for developing and testing your code. If you divided it, describe that. If you did everything together, describe the actual process used (eg. how long you talked about what, what order you wrote and tested, and how long it took).**  
We used a version control system to collaborate on the project. We divided tasks as described below. We did work initially in the same room, but continued to work on our own during the development project, using version control to keep our projects up to date. We discussed the tasks and responsibilities for less than an hour, and implemented the code in the order described in the spec (MyGraph + vertex, FindPaths, Test).

**b) Describe each group member's contributions/responsibilities in the project.**  
For development we both took on different areas, Geoff focused on testing and the write up, as well as the implementation of FindPaths.java. Austin was responsible for the implementation of MyGraph.java which required changing some of the code on Vertex.java. We then both ran some tests on our own to make sure the project was working as expected. Then we wrote the tests to analyze the program.

**c) Describe at least one good thing and one bad thing about the process of working together.**  
Working together gave us a more wide view of the task at hand. When developing the solution we realized it could be done a few ways, and having multiple views helped us land on the solution we created.

Working together also introduced an issue of differentiation in writing style. Understanding exactly what the other persons code was doing took an amount of time that could have been used elsewhere if there had only been 1 developer.

**• If you did any above-and-beyond, describe what you did.**  
We used a Priority Queue to implement djikstras algorithm, otherwise the solution follows the specification

**Appendix**

Place anything that you want to add here.