Deliverables – Spring 2016

My aim for this report is such that could proudly incorporate this in a portfolio of accomplishments that potential future employers might ask for.

I expect a type-written report with the sections below. Your report should have the appropriate substance and rigor with the results, and be well structured in terms of grammar, syntax, and style. The overall presentation and clarity of the report is important, so please mark your sections clearly, and put them in the correct order; it also makes grading easier. You should use the listed 'Generic Goals and Expected Outcomes' above, and the 'project report deliverables' below, as a guide for naming your (sub-)sections. Describe the steps you took to convince yourself that the algorithms are correct. Describe the steps you took to convince yourself that your programs are a correct implementation of your algorithms (i.e. test cases).

Your report will be graded on the quality and appropriate rigor of the content as well as, style grammar, spelling, and readability. Make sure that you only use outside sources that are free and publicly available. Should you use and rely on routines, explanations, and so on from outside sources, then you must cite them carefully. All figures should have captions and clearly labeled axes. Equations should be typeset with a proper equation editor. The report includes a *cover page* that identifies the project and your name, and a declaration that you have adhered to the policy on academic honesty that I am asking you to sign. The report must also include a page (if appropriate and probably as an appendix) that serves as a README file for your programs, where you identify the computer language you used and the compiler and other environmental information that we need to know to run your programs. This is also the place to let us know the status of the programs in your project. If it is not quite fully complete. (For example, I was not able to run it on your test-data, but it worked fine on my own test data with 5 elements. Or: there is an unexplained bug for file sizes larger than $n = 100$.) Please note, that a bug in an algorithm is more serious than a bug in a program. An undocumented bug in a program is more serious than a documented bug.

Your Project Report should have the following identifiable sections:

Title page

CS404, Spring Semester 2016: First and Second Shortest Paths in a Grid

I understand and have adhered to the rules regarding student conduct. In particular, any and all material, including algorithms and programs, have been produced and written by myself. Any outside sources that I have consulted are free, publicly available, and have been appropriately cited. I understand that a violation of the code of conduct will result in a zero (0) for this assignment, and that the situation will be discussed and forwarded to the Academic Dean of the School for any follow up action. It could result in being expelled from the university.

//Your Name// Nicholas R Key //This Date// 4/18/16

Please print and sign this page. Subsequently scan it back in and attach it to your report.

Introduction (5%) Section in which you state the problem and the motivation and purpose of the study as you understand it, your own words or paraphrased from this description. This makes the report self contained and you (and others, like employers) can read the rest with ease, even next semester/year.

Design and Analysis of the adjusted DSPA algorithm (15%) A section in which you present your adjusted DSPA with heap as a supporting structure (and with what additional supporting data structures). Provide convincing arguments