

CSE 373 Homework 1 Write up

Your name, UW Net ID and student number:

1. How did you test that your stack implementations were correct?
2. The file [secret.wav](#) is a backwards recording of a word or short phrase. Use sox (or another converter) and your program to reverse it, and write that as the answer to this question.
3. Your array stacks start with a small array and double in size if they become full. For a .dat file with 1 million lines, how many times would this resizing occur? What about with 1 billion lines or 1 trillion lines (assuming the computer had enough memory)? Explain your answer.
4. Suppose that, instead of a DStack interface, you were given a fully-functional FIFO Queue class. How might you implement this project (i.e., simulate a Stack) with one or more instances of a FIFO Queue? Download [QueueStack.java](#) and [FIFOQueue.java](#) and complete the push and pop operation in the QueueStack.java. The FIFO Queue class provides the operations enqueue, dequeue, isEmpty, and size. Turn in a file QueueStack.java.
5. In the previous question, what trade-offs did you notice between a Queue implementation of a Stack and your original array-based implementation? Which implementation would you choose, and why?
6. Include a description of how your project goes "above and beyond" the basic requirements (if it does).
7. What did you enjoy about this assignment? What did you not enjoy? What could you have done better?
8. What else, if anything, would you like to include related to this homework?

Appendix

Place anything that you want to add here.