

Algorithms

CMPT 435

– Assignment 2 - 100 points

Goals	<ul style="list-style-type: none">to implement a few sorting algorithms and to understand their performance.
Requirements and Notes	<ul style="list-style-type: none">Download the the text file <code>magicitems.txt</code> from our web site.Read it line by line into an array.Develop your own implementation of selection sort, insertion sort, merge sort, and quick sort.Sort using your selection sort. Print the number of comparisons. [10 points]Sort using your insertion sort. Print the number of comparisons. [10 points]Sort using your merge sort. Print the number of comparisons. [30 points]Sort using your quick sort. Print the number of comparisons. [30 points]Record your results in a table in your LaTeX document. Also note the asymptotic running time of <i>each</i> sort and explain why it is that way. [20 points]
	Your code must ... <ul style="list-style-type: none">separate structure from presentation.be professionally formatted yet uniquely yours (show some personality) [-∞ if not]use and demonstrate best practices.make me proud to be your teacher.
Resources	<ul style="list-style-type: none">Insertion sort, merge sort, and quick sort are described in our text in sections 2.1, 2.3, and 7.1 respectively.
Submitting Your Work	In addition to your source code, commit your LaTeX document in both <code>.tex</code> and <code>.pdf</code> forms to your GitHub repository. For your code, make many commits to GitHub. If you don't make enough commits, I will not accept your work. Be sure that you make your final commit for this assignment on or before the due date. (See our syllabus for those details.)

