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Mr. Ritter

Programming Data Structures (H)

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AS3 Performance Analysis Report

Give a brief description of the program here

Explain why you read in all words to lowercase: From @ beginning of sentence is no different than from in middle of sentence

I handled double dashes because…

**As3Small.txt contents:** the kid walks down the street to say hello to his neighbors and their dogs

**Data from sorting array read in from As3Small.txt**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sort | Comparisons | | Swaps | | Time (nanoseconds) |
|  | Test Case | Worst Case | Test Case | Worst Case |  |
| Selection | 81 |  | 8 |  | 167943 |
| Insertion | 63 |  | 51 |  | 121759 |
| Bubble | 78 |  | 51 |  | 150682 |
| Merge | 51 |  | 19 |  | 196400 |
| Quick | 41 |  | 28 |  | 108697 |

**Data from searching array read in from As3Small.txt**

**Searching for the word “kid”**

|  |  |  |  |
| --- | --- | --- | --- |
| Search | Comparisons | | Time (nanoseconds) |
|  | Test Case | Worst Case |  |
| Linear | 6 |  | 30,323 |
| Binary | 4 |  | 29,390 |
| Quadratic | 5 |  | 877,505 |

**Data from sorting array read in from “War and Peace” (As3Large.txt)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sort | Comparisons | | Swaps | | Time (nanoseconds) |
|  | Test Case | Worst Case | Test Case | Worst Case |  |
| Selection | 138,089,193 |  | 10,361 |  | 1,283,947,479 |
| Insertion | 86,101,855 |  | 86,083,349 |  | 1,052,116,650 |
| Bubble | 171,234,096 |  | 86,083,349 |  | 3,821,188,052 |
| Quick | 356,924 |  | 121,054 |  | 39,375,791 |
| Merge | 312,520 |  | 167,610 |  | 16,564,843 |

**Data from searching array read in from “War and Peace” (As3Large.txt)**

**Searching for the word “war”**

|  |  |  |  |
| --- | --- | --- | --- |
| Search | Comparisons | | Time (nanoseconds) |
|  | Test Case | Worst Case |  |
| Linear | 17,850 |  | 14,021,430 |
| Binary | 14 |  | 33,588 |
| Quadratic | 166 |  | 425,457 |