

Package ... JUnit

- CorrelatorResults.java
- DataCount.java
- DataCounter.java
- DataCountStringC
- FileWordReader.java
- FourHeap.java
- GArrayStack.java
- GStack.java
- Hasher.java
- Hashtable.java
- MoveToFrontList.java
- PriorityQueue.java
- SimpleIterator.java
- StringComparator
- StringHasher.java
- StringHasher2.java
- StringHasher3.java
- TestAVLTree.java
- TestBinarySearchT
- TestFourHeap.java
- TestGArrayStack.java
- TestHashtable.java
- TestMoveToFrontList
- TestSorting.java
- TestStringCompar
- WordCount.java
- WordCount2.java

JRE System Library [JavaSE

JUnit 4

Test

WordCount.java ADTSortingTimer.java StringHasher2.java StringHasher.java StringHasher3.java WordCount2.java

```
 * @author Chun-Wei Chen
 * @version CSE 332 02/19/13
 */
```

```
public class ADTSortingTimer {
```

```
    /**
     * @param args
     */
```

```
    public static void main(String[] args) {
        if (args.length != 1) {
            System.err.println("Invalid number of arguments");
            System.exit(1);
        } else {
            long startTime, endTime;

            startTime = System.currentTimeMillis();
            WordCount.main(new String[]{"-b", "-is", args[0]});
            endTime = System.currentTimeMillis();
            long bis = endTime - startTime;
```

Chun-Wei Chen  
CSE 332  
Project 2 - Write-Up Questions No.9  
ADT Sorting Timing  
Input file: Hamlet  
Verion 3 Hasher

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 6:45:19 AM)

```
Timing Results:
Time of BinarySearchTree + insertionSort: 1338 ms
Time of BinarySearchTree + heapSort: 373 ms
Time of BinarySearchTree + mergeSort: 175 ms
Time of AVLTree + insertionSort: 16264 ms
Time of AVLTree + heapSort: 12408 ms
Time of AVLTree + mergeSort: 15852 ms
Time of MoveToFrontList + insertionSort: 1505 ms
Time of MoveToFrontList + heapSort: 1483 ms
Time of MoveToFrontList + mergeSort: 1770 ms
Time of Hashtable + insertionSort: 736 ms
Time of Hashtable + heapSort: 452 ms
Time of Hashtable + mergeSort: 387 ms
```

Package ... JUnit

- CorrelatorResults.j
- DataCount.java
- DataCounter.java
- DataCountStringCo
- FileWordReader.jav
- FourHeap.java
- GArrayStack.java
- GStack.java
- Hasher.java
- Hashtable.java
- MoveToFrontList.j
- PriorityQueue.java
- SimpleIterator.java
- StringComparator
- StringHasher.java
- StringHasher2.java
- StringHasher3.java
- TestAVLTree.java
- TestBinarySearchT
- TestFourHeap.java
- TestGArrayStack.ja
- TestHashtable.java
- TestMoveToFrontL
- TestSorting.java
- TestStringCompar
- WordCount.java
- WordCount2.java

JRE System Library [JavaSE

JUnit 4

Test

WordCount.java ADTSortingTimer.java StringHasher2.java StringHasher.java StringHasher3.java WordCount2.java

```
/* @author Chun-Wei Chen
 * @version CSE 332 02/19/13
 */
public class ADTSortingTimer {

    /**
     * @param args
     */
    public static void main(String[] args) {
        if (args.length != 1) {
            System.err.println("Invalid number of arguments");
            System.exit(1);
        } else {
            long startTime, endTime;

            startTime = System.currentTimeMillis();
            WordCount.main(new String[]{"-b", "-is", args[0]});
            endTime=System.currentTimeMillis();
            long bis = endTime - startTime;
        }
    }
}
```

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 6:47:20 AM)

Timing Results:

|   |          |
|---|----------|
| Time of BinarySearchTree + insertionSort: | 1141 ms  |
| Time of BinarySearchTree + heapSort:      | 333 ms   |
| Time of BinarySearchTree + mergeSort:     | 197 ms   |
| Time of AVLTree + insertionSort:          | 16405 ms |
| Time of AVLTree + heapSort:               | 9179 ms  |
| Time of AVLTree + mergeSort:              | 14520 ms |
| Time of MoveToFrontList + insertionSort:  | 1527 ms  |
| Time of MoveToFrontList + heapSort:       | 1749 ms  |
| Time of MoveToFrontList + mergeSort:      | 1746 ms  |
| Time of Hashtable + insertionSort:        | 660 ms   |
| Time of Hashtable + heapSort:             | 403 ms   |
| Time of Hashtable + mergeSort:            | 419 ms   |





Package ... JUnit

- CorrelatorResults.java
- DataCount.java
- DataCounter.java
- DataCountStringC...
- FileWordReader.java
- FourHeap.java
- GArrayStack.java
- GStack.java
- Hasher.java
- Hashtable.java
- MoveToFrontList.j...
- PriorityQueue.java
- SimpleIterator.java
- StringComparator...
- StringHasher.java
- StringHasher2.java
- StringHasher3.java
- TestAVLTree.java
- TestBinarySearchT...
- TestFourHeap.java
- TestGArrayStack.ja
- TestHashtable.java
- TestMoveToFrontl...
- TestSorting.java
- TestStringCompar...
- WordCount.java
- WordCount2.java
- JRE System Library [JavaSE...
- JUnit 4
- Test

WordCount.java ADTSortingTimer.java StringHasher2.java StringHasher.java StringHasher3.java WordCount2.java

```
/* @author Chun-Wei Chen
 * @version CSE 332 02/19/13
 */
public class ADTSortingTimer {

    /**
     * @param args
     */
    public static void main(String[] args) {
        if (args.length != 1) {
            System.err.println("Invalid number of arguments");
            System.exit(1);
        } else {
            long startTime, endTime;

            startTime = System.currentTimeMillis();
            WordCount.main(new String[]{"-b", "-is", args[0]});
            endTime = System.currentTimeMillis();
            long bis = endTime - startTime;
        }
    }
}
```

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 6:49:18 AM)

Timing Results:

|   |          |
|---|----------|
| Time of BinarySearchTree + insertionSort: | 1106 ms  |
| Time of BinarySearchTree + heapSort:      | 309 ms   |
| Time of BinarySearchTree + mergeSort:     | 261 ms   |
| Time of AVLTree + insertionSort:          | 15772 ms |
| Time of AVLTree + heapSort:               | 11903 ms |
| Time of AVLTree + mergeSort:              | 16367 ms |
| Time of MoveToFrontlist + insertionSort:  | 1602 ms  |
| Time of MoveToFrontlist + heapSort:       | 1741 ms  |
| Time of MoveToFrontlist + mergeSort:      | 1814 ms  |
| Time of Hashtable + insertionSort:        | 756 ms   |
| Time of Hashtable + heapSort:             | 512 ms   |
| Time of Hashtable + mergeSort:            | 487 ms   |