



Package ... JUnit

- src
  - (default package)
    - ADTSortingTimer.j
    - AVLTree.java
    - BinarySearchTree.j
    - Comparator.java
    - Correlator.java
    - CorrelatorResults.j
    - DataCount.java
    - DataCounter.java
    - DataCountStringC
    - FileWordReader.jav
    - FourHeap.java
    - GArrayStack.java
    - GStack.java
    - Hasher.java
    - Hashtable.java
    - MoveToFrontList.j
    - PriorityQueue.java
    - SimpleIterator.java
    - StringComparator
    - StringHasher.java
    - TestAVLTree.java
    - TestBinarySearchT
    - TestFourHeap.java
    - TestGArrayStack.ja
    - TestHashtable.java
    - TestMoveToFrontl
    - TestSorting.java
    - TestStringCompar

ADTSortingTimer.java

```
endTime=System.currentTimeMillis();
long hos = endTime - startTime;
System.out.println();

System.out.println("Timing Results: ");
System.out.println("Time of BinarySearchTree + insertionSort: " + bis + " ms");
System.out.println("Time of BinarySearchTree + heapSort: " + bhs + " ms");
System.out.println("Time of BinarySearchTree + mergeSort: " + bos + " ms");
System.out.println("Time of AVLTree + insertionSort: " + ais + " ms");
System.out.println("Time of AVLTree + heapSort: " + ahs + " ms");
System.out.println("Time of AVLTree + mergeSort: " + aos + " ms");
System.out.println("Time of MoveToFrontList + insertionSort: " + mis + " ms");
System.out.println("Time of MoveToFrontList + heapSort: " + mhs + " ms");
System.out.println("Time of MoveToFrontList + mergeSort: " + mos + " ms");
System.out.println("Time of Hashtable + insertionSort: " + his + " ms");
System.out.println("Time of Hashtable + heapSort: " + hhs + " ms");
System.out.println("Time of Hashtable + mergeSort: " + hos + " ms");
}
```

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CSE 332

Project 2 - Write-Up Questions No.9

ADT Sorting Timing

Input file: Hamlet

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 2:57:08 AM)

```
Timing Results:
Time of BinarySearchTree + insertionSort: 1374 ms
Time of BinarySearchTree + heapSort: 343 ms
Time of BinarySearchTree + mergeSort: 250 ms
Time of AVLTree + insertionSort: 16506 ms
Time of AVLTree + heapSort: 11654 ms
Time of AVLTree + mergeSort: 15414 ms
Time of MoveToFrontList + insertionSort: 1436 ms
Time of MoveToFrontList + heapSort: 1436 ms
Time of MoveToFrontList + mergeSort: 1592 ms
Time of Hashtable + insertionSort: 1421 ms
Time of Hashtable + heapSort: 952 ms
Time of Hashtable + mergeSort: 1217 ms
```





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ADTSortingTimer.java

```
endTime=System.currentTimeMillis();
long hos = endTime - startTime;
System.out.println();

System.out.println("Timing Results: ");
System.out.println("Time of BinarySearchTree + insertionSort: " + bis + " ms");
System.out.println("Time of BinarySearchTree + heapSort: " + bhs + " ms");
System.out.println("Time of BinarySearchTree + mergeSort: " + bos + " ms");
System.out.println("Time of AVLTree + insertionSort: " + ais + " ms");
System.out.println("Time of AVLTree + heapSort: " + ahs + " ms");
System.out.println("Time of AVLTree + mergeSort: " + aos + " ms");
System.out.println("Time of MoveToFrontList + insertionSort: " + mis + " ms");
System.out.println("Time of MoveToFrontList + heapSort: " + mhs + " ms");
System.out.println("Time of MoveToFrontList + mergeSort: " + mos + " ms");
System.out.println("Time of Hashtable + insertionSort: " + his + " ms");
System.out.println("Time of Hashtable + heapSort: " + hhs + " ms");
System.out.println("Time of Hashtable + mergeSort: " + hos + " ms");
}
```

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 3:00:55 AM)

```
Timing Results:
Time of BinarySearchTree + insertionSort: 1077 ms
Time of BinarySearchTree + heapSort: 312 ms
Time of BinarySearchTree + mergeSort: 187 ms
Time of AVLTree + insertionSort: 15180 ms
Time of AVLTree + heapSort: 11171 ms
Time of AVLTree + mergeSort: 14992 ms
Time of MoveToFrontList + insertionSort: 1015 ms
Time of MoveToFrontList + heapSort: 1156 ms
Time of MoveToFrontList + mergeSort: 1428 ms
Time of Hashtable + insertionSort: 1529 ms
Time of Hashtable + heapSort: 921 ms
Time of Hashtable + mergeSort: 859 ms
```



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- CorrelatorResults.java
- DataCount.java
- DataCounter.java
- DataCountStringCounter.java
- FileWordReader.java
- FourHeap.java
- GArrayStack.java
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- TestMoveToFrontl
- TestSorting.java
- TestStringCompari
- WordCount.java

JRE System Library [JavaSE]

JUnit 4

Test

ADTSortingTimer.java WordCount.java

```
startTime = System.currentTimeMillis();
WordCount.main(new String[]{"-h", "-os", "hamlet.txt"});
endTime=System.currentTimeMillis();
long hos = endTime - startTime;
System.out.println();

System.out.println("Timing Results: ");
System.out.println("Time of BinarySearchTree + insertionSort: " + bis + " ms");
System.out.println("Time of BinarySearchTree + heapSort: " + bhs + " ms");
System.out.println("Time of BinarySearchTree + mergeSort: " + bos + " ms");
System.out.println("Time of AVLTree + insertionSort: " + ais + " ms");
System.out.println("Time of AVLTree + heapSort: " + ahs + " ms");
System.out.println("Time of AVLTree + mergeSort: " + aos + " ms");
System.out.println("Time of MoveToFrontList + insertionSort: " + mis + " ms");
System.out.println("Time of MoveToFrontList + heapSort: " + mhs + " ms");
System.out.println("Time of MoveToFrontList + mergeSort: " + mos + " ms");
System.out.println("Time of Hashtable + insertionSort: " + his + " ms");
System.out.println("Time of Hashtable + heapSort: " + hhs + " ms");
System.out.println("Time of Hashtable + mergeSort: " + hos + " ms");
```

@ Javadoc Declaration Console Debug

&lt;terminated&gt; ADTSortingTimer [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Feb 19, 2013 3:33:14 AM)

```
Timing Results:
Time of BinarySearchTree + insertionSort: 1111 ms
Time of BinarySearchTree + heapSort: 303 ms
Time of BinarySearchTree + mergeSort: 178 ms
Time of AVLTree + insertionSort: 15395 ms
Time of AVLTree + heapSort: 11221 ms
Time of AVLTree + mergeSort: 13950 ms
Time of MoveToFrontList + insertionSort: 1011 ms
Time of MoveToFrontList + heapSort: 1633 ms
Time of MoveToFrontList + mergeSort: 1302 ms
Time of Hashtable + insertionSort: 1392 ms
Time of Hashtable + heapSort: 1224 ms
Time of Hashtable + mergeSort: 1298 ms
```