

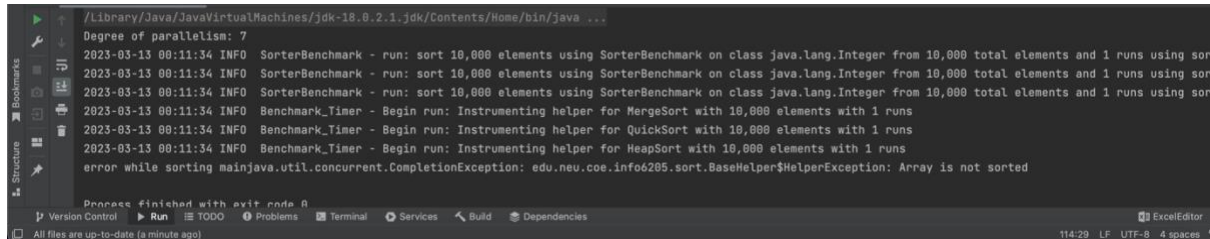
Program Structures and Algorithms

Spring 2023(SEC –03)

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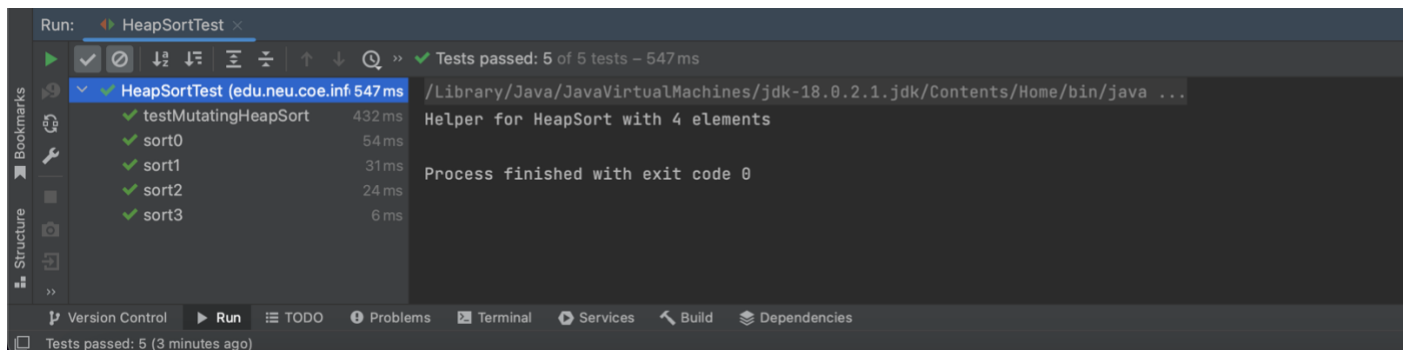
Task: ASSIGNMENT 6(Hits as time predictor)

Relationship Conclusion:

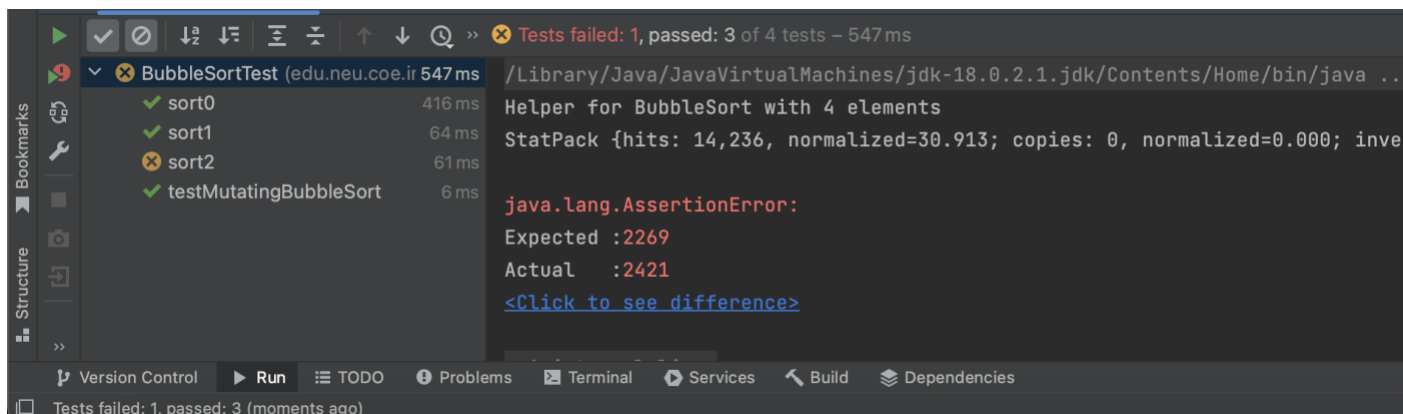


```
/Library/Java/JavaVirtualMachines/jdk-18.0.2.1.jdk/Contents/Home/bin/java ...
Degree of parallelism: 7
2023-03-13 00:11:34 INFO SorterBenchmark - run: sort 10,000 elements using SorterBenchmark on class java.lang.Integer from 10,000 total elements and 1 runs using sort
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2023-03-13 00:11:34 INFO Benchmark_Timer - Begin run: Instrumenting helper for MergeSort with 10,000 elements with 1 runs
2023-03-13 00:11:34 INFO Benchmark_Timer - Begin run: Instrumenting helper for QuickSort with 10,000 elements with 1 runs
2023-03-13 00:11:34 INFO Benchmark_Timer - Begin run: Instrumenting helper for HeapSort with 10,000 elements with 1 runs
error while sorting mainjava.util.concurrent.CompletionException: edu.neu.coe.info6205.sort.BaseHelper$HelperException: Array is not sorted
Process finished with exit code 0
```

Unit Test Screenshots:



```
Run: HeapSortTest x
Tests passed: 5 of 5 tests – 547 ms
HeapSortTest (edu.neu.coe.inf 547 ms)
  testMutatingHeapSort 432 ms
  sort0 54 ms
  sort1 31 ms
  sort2 24 ms
  sort3 6 ms
/Library/Java/JavaVirtualMachines/jdk-18.0.2.1.jdk/Contents/Home/bin/java ...
Helper for HeapSort with 4 elements
Process finished with exit code 0
```



```
Tests failed: 1, passed: 3 of 4 tests – 547 ms
BubbleSortTest (edu.neu.coe.ir 547 ms)
  sort0 416 ms
  sort1 64 ms
  sort2 61 ms
  testMutatingBubbleSort 6 ms
/Library/Java/JavaVirtualMachines/jdk-18.0.2.1.jdk/Contents/Home/bin/java ..
Helper for BubbleSort with 4 elements
StatPack {hits: 14,236, normalized=30.913; copies: 0, normalized=0.000; inve
java.lang.AssertionError:
Expected :2269
Actual :2421
<Click to see difference>
```

