

IntelliJ IDEA File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

INFO6205 - TimerTest.java

INFO6205 src test java edu neu coe info6205 util TimerTest testRepeat3 BenchmarkTest Timer.java

Project

- pq
- RandomWalk2
- reduction
- sort
- symbolTable
- union_find
 - UF_HWQUPC_Test.java
 - WQUPCTest.java
- util
 - BenchmarkTest
 - ConfigTest

Structure

Run: UF_HWQUPC x BenchmarkTest x

Tests passed: 2 of 2 tests - 1s 700 ms

- ✓ BenchmarkTest (edu.neu.cc 1s 700 ms)
 - ✓ testWaitPeriods 1s 700 ms
 - ✓ getWarmupRuns 0 ms

objc[14396]: Class JavaLaunchHelper is implemented in 2020-10-05 23:35:24 INFO Benchmark_Timer - Begin run

Process finished with exit code 0

Event Log

- 11:01 PM Build completed with 3 errors and 0 warnings in 8 s 336 ms
- 11:02 PM Build completed with 5 errors and 0 warnings in 5 s 244 ms
- 11:05 PM Build completed with 2 errors and 0 warnings in 5 s 82 ms
- 11:09 PM Build completed with 2 errors and 0 warnings in 3 s 725 ms
- 11:12 PM Build completed with 2 errors and 0 warnings in 5 s 348 ms
- 11:34 PM Build completed with 10 errors and 0 warnings in 4 s 483 ms
- 11:35 PM Build completed successfully in 4 s 546 ms
- 11:35 PM Tests passed: 2
- 11:35 PM Tests passed: 2

IntelliJ IDEA 2020.2.2 available

Tests passed: 2 (a minute ago)

141:32 LF UTF-8 4 spaces master

IntelliJ IDEA File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

INFO6205 - TimerTest.java

INFO6205 src test java edu neu coe info6205 util TimerTest

Project

- BenchmarkTest
- ConfigTest
- LazyLoggerTest
- PrivateMethodTesterTest
- SorterBenchmarkTest
- StatisticsTest
- StatPackTest
- TimerTest**
- BinarySearchTest
- ComparableTupleTest
- HuffmanCodingTest

Structure

Run: UF_HWQUPC x TimerTest x

Tests passed: 10 of 10 tests - 2 s 322 ms

TimerTest (edu.neu.coe.info6205) 2 s 322 ms

- testPauseAndLapResume0 312 ms
- testPauseAndLapResume1 303 ms
- testLap 206 ms
- testPause 205 ms
- testStop 101 ms
- testMillisecs 103 ms
- testRepeat1 208 ms
- testRepeat2 220 ms
- testRepeat3 562 ms
- testPauseAndLap 102 ms

objc[14415]: Class JavaLaunchHelper is implemented in

Process finished with exit code 0

Event Log

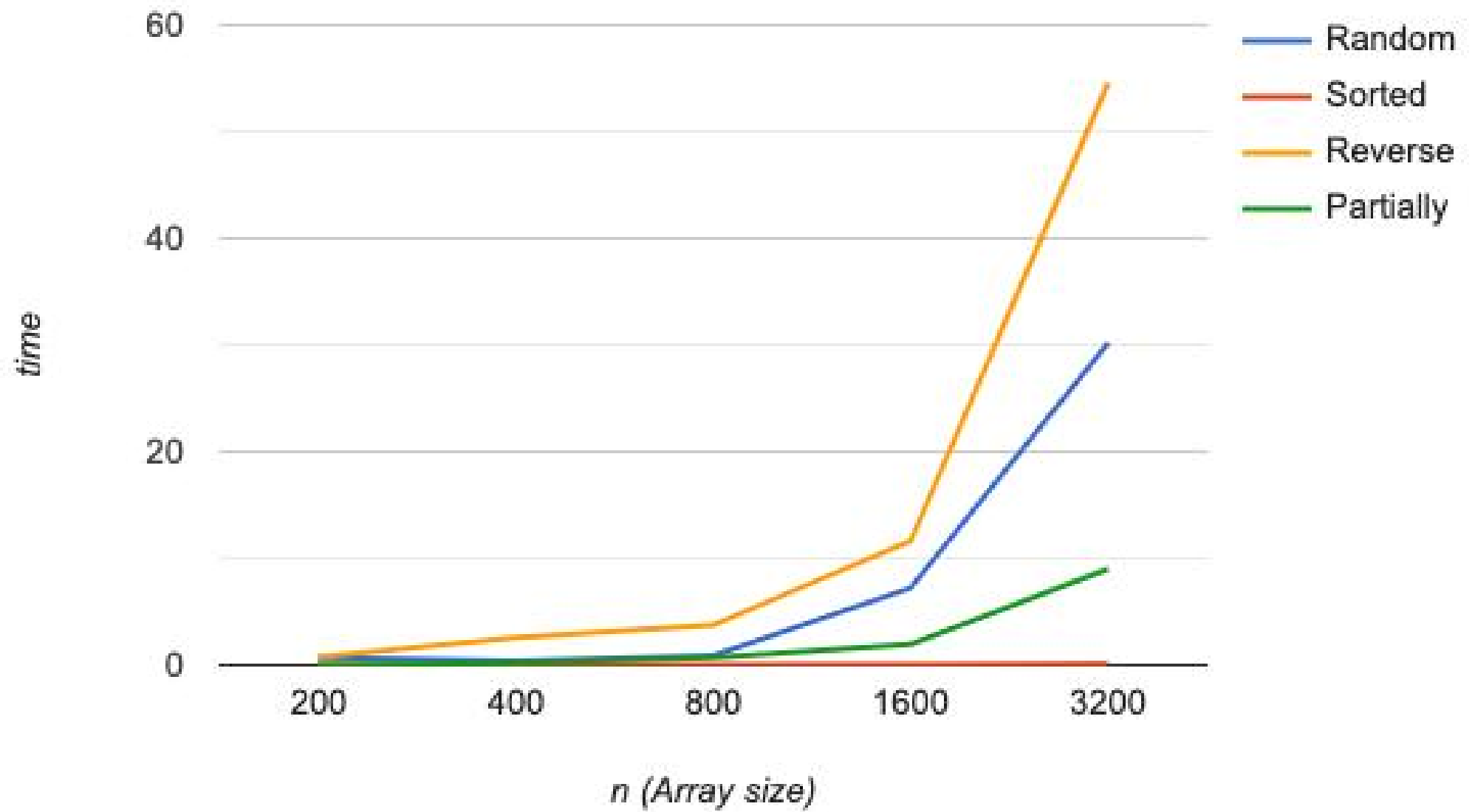
- 11:05 PM Build completed with 2 errors and 0 warnings in 2 s 62 ms
- 11:09 PM Build completed with 2 errors and 0 warnings in 3 s 725 ms
- 11:12 PM Build completed with 2 errors and 0 warnings in 5 s 348 ms
- 11:34 PM Build completed with 10 errors and 0 warnings in 4 s 483 ms
- 11:35 PM Build completed successfully in 4 s 546 ms
- 11:35 PM Tests passed: 2
- 11:35 PM Tests passed: 2
- 11:36 PM All files are up-to-date
- 11:36 PM Tests passed: 10
- 11:36 PM Tests passed: 10

IntelliJ IDEA 2020.2.2 available
Update...

Tests passed: 10 (a minute ago)

141:32 LF UTF-8 4 spaces master

Line Graph



```

/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/bin/java -
javaagent:/Applications/IntelliJ
IDEA.app/Contents/lib/idea_rt.jar=59012:/Applications/IntelliJ
IDEA.app/Contents/bin -Dfile.encoding=UTF-8 -classpath
/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/
charsets.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/
lib/deploy.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/
jre/lib/ext/cldrdata.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/
Contents/Home/jre/lib/ext/dnsns.jar:/Library/Java/JavaVirtualMachines/
jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/jaccess.jar:/Library/Java/
JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/jfxrt.jar:/Library/
Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/
localedata.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/
jre/lib/ext/nashorn.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/
Contents/Home/jre/lib/ext/sunec.jar:/Library/Java/JavaVirtualMachines/
jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/sunjce_provider.jar:/Library/Java/
JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/sunpkcs11.jar:/
Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/ext/
zipfs.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/
lib/javaws.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/
jre/lib/jce.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/
jre/lib/jfr.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/
jre/lib/jfxswt.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/
Home/jre/lib/jsse.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/
Home/jre/lib/management-agent.jar:/Library/Java/JavaVirtualMachines/
jdk1.8.0_151.jdk/Contents/Home/jre/lib/plugin.jar:/Library/Java/
JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/resources.jar:/Library/
Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/rt.jar:/Library/
Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/ant-javafx.jar:/
Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/dt.jar:/
Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/javafx-
mx.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/
jconsole.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/
packager.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/
sa-jdi.jar:/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/lib/
tools.jar:/Users/ayushsrivastava/IdeaProjects/INFO6205/target/classes:/Users/
ayushsrivastava/.m2/repository/junit/junit/4.12/junit-4.12.jar:/Users/
ayushsrivastava/.m2/repository/org/hamcrest/hamcrest-core/1.3/hamcrest-core-
1.3.jar:/Users/ayushsrivastava/.m2/repository/com/google/guava/guava/19.0/guava-
19.0.jar:/Users/ayushsrivastava/.m2/repository/org/apache/logging/log4j/log4j-api/
2.13.3/log4j-api-2.13.3.jar:/Users/ayushsrivastava/.m2/repository/org/ini4j/ini4j/
0.5.4/ini4j-0.5.4.jar:/Users/ayushsrivastava/.m2/repository/log4j/log4j/1.2.17/
log4j-1.2.17.jar edu.neu.coe.info6205.util.Benchmark_Timer
objc[19838]: Class JavaLaunchHelper is implemented in both
/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/bin/java
(0x10c47e4c0) and
/Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/jre/lib/
libinstrument.dylib (0x10c4f44e0). One of the two will be used. Which one is
undefined.
value for n= 200
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.6821111
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.009277
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.7206297
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.025914700000000002
value for n= 400

```

```

2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.389268
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.0107444
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
2.54079030000000003
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.1985209
value for n= 800
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.9036438
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.008629000000000001
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
3.7274811
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.7177443
value for n= 1600
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
7.2079363
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.0273862
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
11.6142581
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
1.9337209999999998
value for n= 3200
2020-10-07 02:21:18 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
30.1448905000000002
2020-10-07 02:21:19 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.053928500000000004
2020-10-07 02:21:19 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
54.5314326
2020-10-07 02:21:19 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
9.0124867
value for n= 6400
2020-10-07 02:21:20 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
57.9527641
2020-10-07 02:21:20 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
0.1081467
2020-10-07 02:21:21 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
121.8498597
2020-10-07 02:21:22 INFO Benchmark_Timer - Begin run: Insertion Sort with 10 runs
21.1671266

```

Process finished with exit code 0

Conclusion and observation:-

Inverse and Random array took approximately n^2 time and partially sorted array was quite better. There was approximately constant (very less) time for the sorted array even though N became very large.