## 1. initial array ordering situation: random

```
public static void main(String[] args) throws IOException {
                                                                                                      Config config = Config.load(SortBenchmark.class);

logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort" if (args.length == 0) logger.warn("No word counts specified on the comma
                              InsertionSortBasic
                              InsertionSortOpt
                              IntroSort
                                                                                                      SortBenchmark benchmark = new SortBenchmark(config); //benchmark.sortIntegers(100000);
                              © MergeSortBasic
                              40
                                                                                                      benchmark.sortIntegers( n: 50);
                              Partition
                                                                                                      //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                              Partitioner
                                                                          42
                              © OuickSort
                              © QuickSort 3way
                              QuickSort_DualPivot
                                                                                                // CONSIDER generifying common code (but it's difficult if not impossible)
                                                                          46
                              SelectionSort
                                                                                               private void sortIntegers(final int n) {
                              © ShellSort
                                                                          48
                                                                                                      final Random random = new Random();
                              © Solution
                                                                                        SortBenchmark > main()
                              TimSort
       SortBenchmark
          E:\Java\jdk1.8.0_131\bin\java.exe ..
          E:\Jawajdkl.8.0_131\bin\jawa.exe ...
2020-09-21 12:42:5 DEMBO Gonfig - Config.get(huskysort, version) = null
2020-09-21 21:24:25 EMBO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 21:24:25 MARN SortBenchmark - No word counts specified on the command line
2020-09-21 21:24:25 MARN SortBenchmark - Begin run: intArraysorter with 100 runs
: ±↓
          2020-09-21 21:24:25 INFO TimeLogger - Raw time per run (mSec): .13
2020-09-21 21:24:25 INFO TimeLogger - Normalized time per run (n log n): 101.15
2020-09-21 21:24:25 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
   ÷
                               InsertionSort
                                                                                                      public static void main(String[] args) throws IOException {
                                                                                                              Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "
if (args.length == 0) Logger.warn("No word counts specified on
                                InsertionSortBasic
                               InsertionSortOpt
                               IntroSort
                                                                                                              SortBenchmark benchmark = new SortBenchmark(config);
                               MergeSortBasic
                                                                                40
                                                                                                               //benchmark.sortIntegers(100000);
                               ♂ MergeSortDecisionTree
                                                                                                              benchmark.sortIntegers(n: 100);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parsi
                                                                                41
                                                                                42
                               Partitioner
                                                                                                              //benchmark.sortLocalDateTimes(100000);
                               © QuickSort
                                                                                44
                                                                                                      }
                               © QuickSort 3way
                                                                                45
                               OuickSort DualPivot
                                                                                46
                                                                                                       // CONSIDER generifying common code (but it's difficult if not im
                               SelectionSort
                                                                                47
                                                                                                      private void sortIntegers(final int n) {
                               © ShellSort
                                                                                48
                                                                                                              final Random random = new Random();
                                Solution
                                                                                               SortBenchmark > main()
      SortBenchmark
          Ellowaljdik.8.e_131\bin\java.exe ...

2020-09-21 21:27:10 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 21:27:10 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 21:27:10 WARN SortBenchmark - No word counts specified on the command line

2020-09-21 21:27:10 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
  <u>=</u>
          2020-09-21 21:27:10 INFO TimeLogger - Raw time per run (mSec): .14
2020-09-21 21:27:10 INFO TimeLogger - Normalized time per run (n log n): 44.46
2020-09-21 21:27:10 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
  ÷
                                                                                             public static void main(String[] args) throws 10txception {
   Config config = Config.Load(SortBenchmark.class);
   Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort")
                          c InsertionSortBasic
                          InsertionSortOpt
                                                                                                     if (args.length == 0) Logger.warn("No word counts specified on the com
                          IntroSort
                                                                                                     SortBenchmark benchmark = new SortBenchmark(config);
                          MergeSortBasic
                          MergeSortDecisionTree
                                                                                                     //benchmark.sortIntegers(100000):
                                                                                                    benchmark.sortIntegers( n: 200);
                          Partition
                                                                                                    //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                                                                        42
                          Partitioner
                          QuickSort
                                                                        44
                          © QuickSort_3way
                                                                        45
                          OuickSort DualPivot
                                                                        46
                                                                                              // CONSIDER generifying common code (but it's difficult if not impossible)
                          SelectionSort
                                                                        47
48
                                                                                             private void sortIntegers(final int n) {
                          C ShellSort
                                                                                                    final Random random = new Random();
                          C Solution
                                                                                      SortBenchmark > main()
                          TimSort
 SortBenchmark
     SOITBERGINGIN E.\(\)Java|Aki.8.e.\(\)131\bin\java.exe ...\\
2020-09-21 21:27:49 DEBUG Config - Config.get(huskysort, version) = null\(\)
2020-09-21 21:27:49 NIFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 21:27:49 NRIN SortBenchmark - No word counts specified on the command line\(\)
2020-09-21 21:27:49 INFO \(\)Benchmark_Timer - Begin run: intArraysorter with 100 runs\(\)
     2020-09-21 21:27:49 INFO TimeLogger - Raw time per run (mSec): .17
2020-09-21 21:27:49 INFO TimeLogger - Normalized time per run (n log n): 22.75
2020-09-21 21:27:49 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
5
```

```
public static void main(String[] args) throws IOException {
   Config config = Config.load(SortBenchmark.class);
   logger.info("SortBenchmark.main: " + config.get( sectionName: "husk)
   if (args.length == 0) logger.warn("No word counts specified on the
                                   C InsertionSort
                                    c Insertion Sort Basic
                                   InsertionSortOpt
                                    IntroSort
                                                                                           38
                                                                                                                            SortBenchmark benchmark = new SortBenchmark(config);
                                   MergeSortBasic
                                                                                                                            //benchmark.sortIntegers(100000);
benchmark.sortIntegers( n: 400);
                                                                                          40
                                    MergeSortDecisionTree
                                   © Partition
                                                                                           42
                                                                                                                                benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt)

    Partitioner

                                                                                                                             //benchmark.sortLocalDateTimes(100000);
                                                                                          43
44
                                   © OuickSort
                                    © QuickSort_3way
                                                                                          45
                                    QuickSort_DualPivot
                                                                                                                   // CONSIDER generifying common code (but it's difficult if not impossi private void sortIntegers(final int \frac{1}{10}) {
                                                                                          46
                                   SelectionSort
                                                                                          47
                                   ShellSort
                                                                                                                            final Random random = new Random();
                                   Solution
                                                                                                           SortBenchmark > main()
      SortBenchmark
           Soliderichining X.

2028-09-21 21:28:27 DEBUG Config - Config.get(huskysort, version) = null

2028-09-21 21:28:27 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2028-09-21 21:28:27 NRN SortBenchmark - No word counts specified on the command line

2028-09-21 21:28:27 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
  =
           2020-09-21 21:28:27 INFO TimeLogger - Raw time per run (mSec): .22
2020-09-21 21:28:27 INFO TimeLogger - Normalized time per run (n log n): 12.70
2020-09-21 21:28:27 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
  \Rightarrow
   î
                                © InsertionSort
                                                                                                           public static void main(String[] args) throws IOException {
                                 InsertionSortBasic
                                                                                    36
37
                                                                                                                   Config config = Config.load(SortBenchmark.class);
logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort",
if (args.length == 0) logger.warn("No word counts specified on the command
                                 InsertionSortOpt
                                 IntroSort
                                                                                   39
40
                                                                                                                   SortBenchmark benchmark = new SortBenchmark(config); //benchmark.sortIntegers(100000);

    MergeSortBasic

                                MergeSortDecisionTree
Partition
                                                                                                                   //benchmark.sortIntegers( n: 800);|
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                                                                                    41
42

    Partitioner

                                                                                    43
44
                                OuickSort
                                 © QuickSort_3way
                                                                                    45
46
47
                                 OuickSort DualPivot
                                                                                                          // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \stackrel{n}{n}) {
                                 © SelectionSort
                                 C ShellSort
                                                                                                                   final Random random = new Random();
                                 Solution
                                 C TimSort
                                                                                                   SortBenchmark > main()
     SortBenchmark
         SoftBernmark **.

1028-09-21 21:28:59 DEBUG Config - Config.get(huskysort, version) = null

1028-09-21 21:28:59 INFO SortBernchmark - SortBernchmark main: null with word counts: []

1028-09-21 21:28:59 WARN SortBernchmark - No word counts specified on the command line

1028-09-21 21:28:59 INFO Bernchmark Timer - Begin run: intArraysorter with 100 runs
 :+
          2020-09-21 21:28:59 INFO TimeLogger - Raw time per run (mSec): .47
2020-09-21 21:28:59 INFO TimeLogger - Normalized time per run (n log n): 11.93
2020-09-21 21:28:59 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
 ÷
                                                                                                               public static void main(String[] args) throws IOException {
   Config config = Config.load(SortBenchmark.class);
   logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysc
   if (args.length == 0) logger.warn("No word counts specified on the c
   SortBenchmark benchmark = new SortBenchmark(config);
                               C InsertionSort
                                c InsertionSortBasic
                                InsertionSortOpt
                                IntroSort
                                                                                       38
                                MergeSortBasic
                                                                                       40
                                                                                                                          //benchmark.sortIntegers(100000);
                                benchmark.sortIntegers( n: 1600);
                                 © Partition
                                                                                       41
                                                                                                                         //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);

    Partitioner

                                QuickSort
                                                                                       44
                                © QuickSort_3way
                                                                                       45
                                 QuickSort_DualPivot
                                                                                                                // CONSIDER generifying common code (but it's difficult if not impossibl
                                                                                       46
                                © SelectionSort
                                                                                                                private void sortIntegers(final int n) {
                                                                                       47
                                C ShellSort
                                                                                                                         final Random random = new Random();
                                c Solution
                                                                                                       SortBenchmark > main()
        Sortementania, Et. Javajákki.8.0_131\bin\java.exe ...
2020-09-21 21:29:32 DEBUG Config - Config.get(huskysort, version) = null
2020-09-21 21:29:32 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 21:29:32 INFO SortBenchmark - No word counts specified on the command line
2020-09-21 21:29:32 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=
<u>=</u>↓
        2020-09-21 21:29:32 INFO TimeLogger - Raw time per run (mSec): 1.55
2020-09-21 21:29:32 INFO TimeLogger - Hormalized time per run (n log n): 17.54
2020-09-21 21:29:32 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
î
```

```
InsertionSort
                                                                                                                                 public static void main(String[] args) throws IOException {
                                                                                                                                            Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "husky
                                   InsertionSortBasic
                                   © InsertionSortOpt
                                                                                                     38
                                                                                                                                                     (args.length == 0) logger.warn("No word counts specified on the
                                    IntroSort
                                                                                                                                            SortBenchmark benchmark = new SortBenchmark(config);
//benchmark.sortIntegers(100000);
                                   MergeSortBasic
                                                                                                    40
                                   41
                                                                                                                                            benchmark.sortIntegers( n: 3200);
                                   Partition
                                                                                                                                            //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt)
//benchmark.sortLocalDateTimes(100000);
                                                                                                    42
                                   Partitioner

    OuickSort

                                   © QuickSort_3way
                                                                                                    45

    QuickSort DualPivot

                                                                                                    46
                                                                                                                                   // CONSIDER generifying common code (but it's difficult if not impossi
                                   SelectionSort
                                                                                                    47
                                                                                                                                 private void sortIntegers(final int n) {
                                   © ShellSort
                                                                                                                                            final Random random = new Random();
                                    Solution
                                                                                                                        SortBenchmark → main()
      SortBenchmark
      SOURCECTION SOURCECTORY OF THE STATE OF THE 
      2020-09-21 21:30:04 INFO TimeLogger - Raw time per run (mSec): 5.28
2020-09-21 21:30:04 INFO TimeLogger - Normalized time per run (n log n): 26.95
2020-09-21 21:30:04 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
                                     © InsertionSort
                                                                                                     35
                                                                                                                                    public static void main(String[] args) throws IOException {
                                                                                                                                             Config config = Config.Load(SortBenchmark.class);

Logger.info("SortBenchmark.main: " + config.get( sectionName: "husky
if (args.length == 0) Logger.warn("No word counts specified on the
SortBenchmark benchmark = new SortBenchmark(config);
                                      c InsertionSortBasic
                                                                                                      36
                                      InsertionSortOpt
                                      IntroSort
                                                                                                      38
                                      MergeSortBasic
                                                                                                      40
                                                                                                                                                 //benchmark.sortIntegers(100000)
                                      //benchmark.sortIntegers(in: 6400);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt),
                                                                                                      41
                                      © Partition
                                                                                                      42
                                      Partitioner
                                                                                                      43
                                                                                                                                               //benchmark.sortLocalDateTimes(100000);
                                      © QuickSort
                                                                                                      44
                                      OuickSort 3way
                                                                                                      45
                                      QuickSort_DualPivot
                                                                                                                                   // CONSIDER generifying common code (but it's difficult if not impossil private void sortIntegers(final int \frac{1}{n}) {
                                                                                                      46
                                       © SelectionSort
                                                                                                      47
                                      ShellSort
                                                                                                      48
                                                                                                                                              final Random random = new Random();
                                      Solution
                                      C TimSort
     SortBenchmark
         Softbenchmark

El'Javajajki.8.e. 131\bin\java.exe ...

2020-09-21 21:30:37 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 21:30:37 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 21:30:37 NANN SortBenchmark - No word counts specified on the command line

2020-09-21 21:30:37 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
5
          2020-09-21 21:30:39 INFO TimeLogger - Raw time per run (mSec): 21.30
2020-09-21 21:30:39 INFO TimeLogger - Normalized time per run (n log n): 49.52
2020-09-21 21:30:39 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
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 î
                                     © InsertionSort
                                                                                                                                         public static void main(String[] args) throws IOException {
                                                                                                                                                   Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: ")
                                        ₫ InsertionSortBasic
                                        © InsertionSortOpt
                                                                                                                                                    if (args.length == 0) Logger.warn("No word counts specified on
                                        IntroSort
                                                                                                          38
                                                                                                                                                   SortBenchmark benchmark = new SortBenchmark(config);
//benchmark.sortIntegers(100000);
                                        MergeSortBasic
                                                                                                          40
                                        benchmark.sortIntegers( n: 12800);
                                        Partition
                                                                                                                                                   //benchmark.sortStrings(Arrays.stream(args).map(Integer::parse
//benchmark.sortLocalDateTimes(100000);
                                        Partitioner
                                                                                                          43
                                        © OuickSort
                                                                                                          44
                                        QuickSort_3way
                                                                                                          45
                                        © QuickSort_DualPivot
                                                                                                                                         // CONSIDER generifying common code (but it's difficult if not imp private void sortIntegers(final int \frac{n}{i}) {
                                                                                                          46
                                        SelectionSort
                                                                                                          47
                                        ShellSort
                                                                                                                                                   final Random random = new Random();
                                                                                                          48
                                        Solution
                                                                                                                               SortBenchmark > main()
                                        C TimSort
         SOTBERCHINGK A

El-VJavajdkl.8.e J.331\bin\java.exe ...

2020-09-21 21:31:22 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 21:31:22 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 21:31:22 WARN SortBenchmark - No word counts specified on the command line

2020-09-21 21:31:22 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
 1
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<u>=</u>†
          2020-09-21 21:31:30 INFO TimeLogger - Raw time per run (mSec): 78.41 2020-09-21 21:31:30 INFO TimeLogger - Normalized time per run (n log n): 83.67 2020-09-21 21:31:30 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
 î
```

```
public static void main(String[] args) throws IOException {
                        RucketSort
                                                                                                    Config config = Config.Load(SortBenchmark.class);
                                                                       36
                        InsertionSort
                                                                                                   logger.info("SortBenchmark.main: " + config.get( sectionName
if (args.length == 0) logger.warn("No word counts specified
                        InsertionSortBasic
                                                                       38
                        InsertionSortOpt
                                                                                                    SortBenchmark benchmark = new SortBenchmark(config);
                        IntroSort
                                                                                                     //benchmark.sortIntegers(100000)
                        MergeSortBasic
                                                                                                    benchmark.sortIntegers( n: 25600);
                                                                       41
                        MergeSortDecisionTree
                                                                                                    //benchmark.sortStrings(Arrays.stream(args).map(Integer::pa
                                                                       42
                        Partition
                                                                       43
                                                                                                    //benchmark.sortLocalDateTimes(100000);
                        Partitioner
                        © QuickSort
                                                                                            // CONSIDER generifying common code (but it's difficult if not private void sortIntegers(final int \frac{1}{10}) {
                        QuickSort 3way
                        QuickSort DualPivot
                                                                       47
                                                                                                    final Random random = new Random():
                        SelectionSort
                                                                       48
                        ShellSort
                                                                       49
                                                                       50
                                                                                                  // sort int[]
                        Solution
                                                                                     SortBenchmark > main()
                        TimSort
    E:\Java\jdk1.8.0_131\bin\java.exe .
   E:\Java\jdkl.8.0_131\bin\java.exe ...
2020-09-21 22:41:57 DEBUG Config - Config.get(huskysort, version) = null
2020-09-21 22:41:57 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 22:41:57 NAFN SortBenchmark - No word counts specified on the command line
2020-09-21 22:41:57 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
    2020-09-21 22:42:36 INFO TimeLogger - Raw time per run (mSec): 355.46 2020-09-21 22:42:36 INFO TimeLogger - Normalized time per run (n^2): .36 2020-09-21 22:42:36 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
                          © InsertionSort
                                                                                          public static void main(String[] args) throws IOException {
                                                                                                 Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "hus
if (args.length == 0) Logger.warn("No word counts specified on t
                          c InsertionSortBasic
                          InsertionSortOpt
                          IntroSort
                                                                                                 SortBenchmark benchmark = new SortBenchmark(config);
                          MergeSortBasic
                                                                      40
                                                                                                   //benchmark.sortIntegers(100000);
                          benchmark.sortIntegers( n: 51200);
                          © Partition
                                                                      42
                                                                                                  //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseIn
                          Partitioner
                                                                      43
                                                                                                  //benchmark.sortLocalDateTimes(100000);
                          OuickSort
                                                                      44
                          QuickSort 3way
                                                                      45
                          © QuickSort DualPivot
                                                                                          // CONSIDER generifying common code (but it's difficult if not impos
private void sortIntegers(final int n) {
   final Random random = new Random();
                                                                      46
                           © SelectionSort
                                                                      47
                          ShellSort
                                                                      48
                          Solution
                                                                                    SortBenchmark > main()
                          TimSort
      Ellyawajdki.8.0_131\bin\java.exe ...

2020-09-21 22:45:28 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 22:45:28 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 22:45:28 MARN SortBenchmark - No word counts specified on the command line

2020-09-21 22:45:28 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
       2020-09-21 22:48:30 INFO TimeLogger - Raw time per run (mSec): 1653.74
2020-09-21 22:48:30 INFO TimeLogger - Normalized time per run (n^2): .42
2020-09-21 22:48:30 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
=
```

## 2. initial array ordering situation: ordered

```
public static void main(String[] args) throws inexception {
               © InsertionSort
                                                                                          Config config = Config.Load(SortBenchmark.class);

Logger.info("SortBenchmark.main: " + config.get( sectionName: "hus
if (args.length == 0) Logger.warn("No word counts specified on to
SortBenchmark benchmark = new SortBenchmark(config);
                                                              36
                InsertionSortBasic
                InsertionSortOpt
                                                              38
               IntroSort
               MergeSortBasic
                                                                                           //benchmark.sortIntegers(100000);
                                                              40
               ♂ MergeSortDecisionTree
                                                                                          benchmark.sortIntegers( n: 50);
                                                              41
                Partition
                                                              42
                                                                                            //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseIn
                                                                                           //benchmark.sortLocalDateTimes(100000);
               Partitioner
                                                              43
               QuickSort
                                                              44
                                                              45
               © QuickSort_3way
                                                              46
                                                                                      / CONSIDER generifying common code (but it's difficult if not impos
                QuickSort_DualPivot
                                                                                   private void sortIntegers(final int n) {
                                                              47
                SelectionSort
                                                              48
                                                                                          final Random random = new Random();
                C ShellSort
                                                                            SortBenchmark > main()
                Solution
tBenchmark
Java\jdk1.8.0 131\bin\java.exe ..
lava\jdkl.8.0_131\bin\java.exe ...
3-09-21 23:17:55 DEBUG Config - Config.get(huskysort, version) = null
3-09-21 23:17:55 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
3-09-21 23:17:55 WARN SortBenchmark - No word counts specified on the command line
3-09-21 23:17:55 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
3-09-21 23:17:55 INFO TimeLogger - Raw time per run (mSec): .08
3-09-21 23:17:55 INFO TimeLogger - Normalized time per run (n^2): 21.77
3-09-21 23:17:55 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
C InsertionSort
                                                                                        Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( section
if (args.length == 0) Logger.warn("No word counts spec
                     InsertionSortBasic
                     InsertionSortOpt
                     IntroSort
                                                                                         SortBenchmark benchmark = new SortBenchmark(config);
                     MergeSortBasic
                                                               40
                                                                                         //benchmark.sortIntegers(100000);
                     MergeSortDecisionTree
                                                               41
                                                                                         benchmark.sortIntegers(n: 100);
                                                                                         //benchmark.sortStrings(Arrays.stream(args).map(Intege
                     Partition
                                                               42
                                                                                         //benchmark.sortLocalDateTimes(100000);
                    Partitioner
                                                               43
                     (C) QuickSort
                                                               44
                     © QuickSort_3way
                                                               45
                                                                                  // CONSIDER generifying common code (but it's difficult if
                                                               46
                     © QuickSort DualPivot
                                                                                  private void sortIntegers(final int n) {
                                                               47
                     SelectionSort
                                                               48
                                                                                         final Random random = new Random();
                     ShellSort
                                                                            SortBenchmark > main()
                     Solution
  SortBenchmark
  E:\Java\jdk1.8.0_131\bin\java.exe ...
2020-09-21 23:18:59 DEBUG Config - Config.get(huskysort, version) = null
  2020-09-21 23:18:59 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 23:18:59 WARN SortBenchmark - No word counts specified on the command line
2020-09-21 23:18:59 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
  2020-09-21 23:18:59 INFO TimeLogger - Raw time per run (mSec):
  2020-09-21 23:18:59 INFO TimeLogger - Normalized time per run (n^2): 10:10
2020-09-21 23:18:59 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
                        InsertionSort
                                                                                           Config config = Config.Load(SortBenchmark.class);
                                                                 36
                                                                                           logger.info("SortBenchmark.main: " + config.get( section
if (args.length == 0) logger.warn("No word counts spec
                        InsertionSortOpt
                                                                 38
                        IntroSort
                                                                                           SortBenchmark benchmark = new SortBenchmark(config);
                        © MergeSortBasic
                                                                                           //benchmark.sortIntegers(100000);
                                                                 40
                        ♂ MergeSortDecisionTree
                                                                                          benchmark.sortIntegers( n: 200);
                                                                 41
                                                                                           //benchmark.sortStrings(Arrays.stream(args).map(Intege
                        © Partition
                                                                 42
                                                                 43
                                                                                           //benchmark.sortLocalDateTimes(100000);
                        Partitioner
                                                                 44
                        © QuickSort
                                                                 45
                        QuickSort 3way
                                                                                    // CONSIDER generifying common code (but it's difficult if
                                                                 46
                        QuickSort DualPivot
                                                                 47
                                                                                    private void sortIntegers(final int n) {
                        SelectionSort
                                                                                          final Random random = new Random();
                        © ShellSort
                                                                              SortBenchmark > main()
                        Solution
     SortBenchmark
     E:\Java\jdk1.8.0_131\bin\java.exe ...

2020-09-21 23:19:27 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 23:19:27 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 23:19:27 MARN SortBenchmark - No word counts specified on the command line

2020-09-21 23:19:27 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
5
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     2020-09-21 23:19:27 INFO TimeLogger - Raw time per run (mSec): .11
2020-09-21 23:19:27 INFO TimeLogger - Normalized time per run (n^2): 1.84
2020-09-21 23:19:27 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
-
î
                       BucketSort
                                                                                public static void main(String[] args) throws IOException {
                       © InsertionSort
                                                              36
                                                                                       Config config = Config.Load(SortBenchmark.class);
                       InsertionSortBasic
                                                                                       logger.info("SortBenchmark.main: " + config.get( sectionName
if (args.length == 0) logger.warn("No word counts specified
                                                              37
                       © InsertionSortOpt
                                                              38
                       IntroSort
                                                                                       SortBenchmark benchmark = new SortBenchmark(config);
                       © MergeSortBasic
                                                                                       //benchmark.sortIntegers(100000)
                                                              40
                       benchmark.sortIntegers( n: 400);
                                                              41
                       © Partition
                                                              42
                                                                                       //benchmark.sortStrings(Arrays.stream(args).map(Integer::pa
                       Partitioner
                                                              43
                                                                                       //benchmark.sortLocalDateTimes(100000);
                       QuickSort
                                                              44
                                                                                }
                                                              45
                       © QuickSort_3way
                                                              46
                                                                                     CONSIDER generifying common code (but it's difficult if not
                       QuickSort_DualPivot
                                                                                private void sortIntegers(final int n) {
                                                              47
                       © SelectionSort
                                                              48
                                                                                      final Random random = new Random();
                       ShellSort
                       Solution
                                                                          SortBenchmark > main()
     SortBenchmark
     E:\Java\jdk1.8.0_131\bin\java.exe ...
     2020-09-21 23:20:01 DEBUG Config - Config.get(huskysort, version) = null 2020-09-21 23:20:01 INFO SortBenchmark - SortBenchmark.main: null with word counts: [] 2020-09-21 23:20:01 MARN SortBenchmark - No word counts specified on the command line 2020-09-21 23:20:01 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
5
     2020-09-21 23:20:01 INFO TimeLogger - Raw time per run (mSec): .19
2020-09-21 23:20:01 INFO TimeLogger - Normalized time per run (n^2): .79
2020-09-21 23:20:01 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
InsertionSort
                                                                                                                  Config config = Config.Load(SortBenchmark.class);
                               c Insertion Sort Basic
                                                                                                                  logger.info("SortBenchmark.main: " + config.get( sectionName: "F
if (args.length == 0) logger.warn("No word counts specified on
                               © InsertionSortOpt
                                                                                  38
                              © IntroSort
                                                                                                                  SortBenchmark benchmark = new SortBenchmark(config);
                              © MergeSortBasic
                                                                                                                   //benchmark.sortIntegers(100000);
                                                                                  40
                                                                                                                  benchmark.sortIntegers( n: 800);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parse
//benchmark.sortLocalDateTimes(100000);
                              41
                              Partition
                                                                                  42
                                                                                  43
                              Partitioner
                                                                                  44
                              © QuickSort
                                                                                  45
                               © QuickSort_3way
                                                                                                         // CONSIDER generifying common code (but it's difficult if not imp private void sortIntegers(final int \overline{n}) {
                                                                                  46
                               QuickSort_DualPivot
                                                                                  47
                               © SelectionSort
                                                                                                                 final Random random = new Random();
                              C ShellSort
                              C Solution
                                                                                                 SortBenchmark → main()
        SortBenchmark
        E:\Java\jdKl.8.0_133\\bin\java.exe ...
2020-09-21 23:20:40 DEBUG Config - Config.get(huskysort, version) = null
2020-09-21 23:20:40 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21 23:20:40 WARN SortBenchmark - No word counts specified on the command line
2020-09-21 23:20:40 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=
<u>=</u>↓
       2020-09-21 23:20:40 INFO TimeLogger - Raw time per run (mSec): .32
2020-09-21 23:20:40 INFO TimeLogger - Normalized time per run (n^2): .33
2020-09-21 23:20:40 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
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î
                                                                                                      hantic scarte nota math/sci.tuR[] auRs) runoms toexcehetou /
                            c InsertionSort
                                                                               36
                                                                                                              Config config = Config.load(SortBenchmark.class);
logger.info("SortBenchmark.main: " + config.get(sectionName: "husk
if (args.length == 0) logger.warn("No word counts specified on th
                             InsertionSortBasic
                             InsertionSortOpt
                                                                               38
                             IntroSort
                                                                                                              SortBenchmark benchmark = new SortBenchmark(config);
                             MergeSortBasic
                                                                               40
                                                                                                                //benchmark.sortIntegers(100006
                             ♂ MergeSortDecisionTree
                                                                                                               benchmark.sortIntegers( n: 1600);
                                                                                                              //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt
//benchmark.sortLocalDateTimes(100000);
                             Partition
                                                                               43
                             Partitioner
                             QuickSort
                                                                               44
                             © QuickSort_3way
                                                                               45
46
                                                                                                       // CONSIDER generifying common code (but it's difficult if not imposs
                             QuickSort_DualPivot
                                                                               47
                                                                                                      private void sortIntegers(final int n) {
                             SelectionSort
                                                                               48
                                                                                                              final Random random = new Random();
                             C ShellSort
                             Solution
SortBenchmark
       E:\Java\jdk1.8.0 131\bin\java.exe .
       2020-09-21 23:21:00 ENGUG Config - Config.get(huskysort, version) = null 2020-09-21 23:21:00 ENGUG Config - Config.get(huskysort, version) = null 2020-09-21 23:21:06 INFO SortBenchmark - SortBenchmark.main: null with word counts: [] 2020-09-21 23:21:06 INFO SortBenchmark - No word counts specified on the command line 2020-09-21 23:21:06 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>
       2020-09-21 23:21:06 INFO TimeLogger - Raw time per run (mSec): .34
2020-09-21 23:21:06 INFO TimeLogger - Normalized time per run (n^2): .09
2020-09-21 23:21:06 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
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                                                                                                         Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort"
if (args.length == 0) Logger.warn("No word counts specified on the comma
                           InsertionSort
                            c Insertion Sort Basic
                                                                            37
38
                            InsertionSortOpt
                                                                                                         SortBenchmark benchmark = new SortBenchmark(config);
//benchmark.sortIntegers(100000);
                            IntroSort

    MergeSortBasic

                            41
42
                                                                                                         benchmark.sortIntegers( n: 3200);
                                                                                                         //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                            Partition
                            Partitioner
                            QuickSort
                                                                            45
                            QuickSort 3way
                                                                                                 // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \overline{\bf n}) {
                            QuickSort_DualPivot
                                                                            47
                            © SelectionSort
                                                                                                       final Random random = new Random();
                            C ShellSort
                                                                                          SortBenchmark > main()
                            Solution
       SortBenchmark
       SoftBenchmark * E:\Java\jdkl.8.0_131\bin\java.exe ...

2020-09-21 23:21:32 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 23:21:32 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 23:21:32 INFO SortBenchmark - No word counts specified on the command line

2020-09-21 23:21:32 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
       2020-09-21 23:21:32 INFO TimeLogger - Raw time per run (mSec): .31
2020-09-21 23:21:32 INFO TimeLogger - Normalized time per run (n^2): .02
2020-09-21 23:21:32 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
```

```
InsertionSort
                                                                                                                                                 Config config = Config.Load(SortBenchmark.class);
                                            InsertionSortBasic
                                                                                                                                                 logger.info("SortBenchmark.main: " + config.get( sectionName: "huskyso if (args.length == 0) logger.warn("No word counts specified on the co
                                                                                                         37
38
                                         ■ InsertionSortOpt
                                         IntroSort
                                                                                                          39
                                                                                                                                                 SortBenchmark benchmark = new SortBenchmark(config);
                                         © MergeSortBasic
                                                                                                                                                  //benchmark.sortIntegers(100000)
                                                                                                         40
                                         benchmark.sortIntegers( n: 6400);
                                                                                                          41
                                         Partition
                                                                                                         42
                                                                                                                                                 //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                                                                                                         43
                                         Partitioner
                                         QuickSort
                                                                                                         44
                                         QuickSort_3way
                                                                                                                                     // CONSIDER generifying common code (but it's difficult if not impossible private void sortIntegers(final int \stackrel{n}{n}) {
                                                                                                         46
                                         OuickSort DualPivot
                                         © SelectionSort
                                                                                                                                          final Random random = new Random();
                                                                                                         48
                                         © ShellSort
                                                                                                                            SortBenchmark > main()
                                         Solution
       SortBenchmark
            SOUTBERGERIAN CONTROL OF THE CONTROL
  ≟
            2020-09-21 23:21:55 INFO TimeLogger - Raw time per run (mSec): .39
2020-09-21 23:21:55 INFO TimeLogger - Normalized time per run (n^2): .01
2020-09-21 23:21:55 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
  ÷
                                     BucketSort
                                                                                                        35
                                                                                                                                        public static void main(String[] args) throws IOException {
                                     InsertionSort
                                                                                                                                                  Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "hus
if (args.length == 0) Logger.warn("No word counts specified on to
                                                                                                         36
                                     InsertionSortOpt
                                                                                                          38
                                      © IntroSort
                                                                                                                                                   SortBenchmark benchmark = new SortBenchmark(config);
                                      MergeSortBasic
                                                                                                                                                    //benchmark.sortIntegers(100000);
                                                                                                         40
                                     ♂ MergeSortDecisionTree
                                                                                                                                                   benchmark.sortIntegers( n: 12800);
                                                                                                          41
                                                                                                                                                   //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseIn
//benchmark.sortLocalDateTimes(100000);
                                     © Partition
                                                                                                          42
                                     Partitioner
                                                                                                         43
                                                                                                         44
                                     (c) QuickSort
                                                                                                          45
                                      © QuickSort 3way
                                                                                                                                       // CONSIDER generifying common code (but it's difficult if not imposprivate void sortIntegers(final int \overline{\bf n}) {
                                                                                                         46
                                      QuickSort_DualPivot
                                                                                                         47
                                      © SelectionSort
                                                                                                                                                  final Random random = new Random();
                                      C ShellSort
                                      Solution
                                                                                                                             SortBenchmark > main()
        2020-09-21 23:22:19 INFO TimeLogger - Raw time per run (mSec): .58
2020-09-21 23:22:19 INFO TimeLogger - Normalized time per run (n'2): .00
2020-09-21 23:22:19 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
-
                                                                                                                                          Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get(sectionName: "huskysort", if (args.length == 0) Logger.warn("No word counts specified on the command
                                       © InsertionSort
                                         ct Insertion Sort Basic
                                                                                                     37
38
                                        InsertionSortOpt
                                        © IntroSort
                                                                                                                                          SortBenchmark benchmark = new SortBenchmark(config);
                                        MergeSortBasic
                                                                                                                                            //benchmark.sortIntegers(10006
                                        benchmark.sortIntegers( n: 25600);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                                        © Partition
                                                                                                     42
                                        Partitioner
                                        © QuickSort
                                                                                                     44
45
46
47
                                        QuickSort 3way
                                                                                                                                // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \stackrel{\textbf{n}}{\text{n}}) {

    QuickSort DualPivot

                                        © SelectionSort
                                                                                                                                          final Random random = new Random();
                                        ShellSort
                                                                                                                        SortBenchmark > main()
            E\\Java\jdkl.8.0_131\bin\java.exe ...
2020-09-21_23:22:47_DEBUG_Config_Config_get(huskysort, version) = null
2020-09-21_23:22:47_INFO_SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-21_23:22:47_INFO_SortBenchmark - No word counts specified on the command line
2020-09-21_23:22:47_INFO_Benchmark_Timer - Begin run: intArraysorter with 100 runs
            2020-09-21 23:22:47 INFO TimeLogger - Raw time per run (mSec): .77
2020-09-21 23:22:47 INFO TimeLogger - Normalized time per run (n*2): .00
2020-09-21 23:22:47 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
© InsertionSort
                                                                                     Config config = Config.Load(SortBenchmark.class);
                     Insertion Sort Basic
                                                                                     logger.info("SortBenchmark.main: " + config.get( sectionName: "
if (args.length == 0) logger.warn("No word counts specified on
                     InsertionSortOpt
                                                            38
                    IntroSort
                                                                                     SortBenchmark benchmark = new SortBenchmark(config);
                    MergeSortBasic
                                                                                      //benchmark.sortIntegers(100000)
                    MergeSortDecisionTree
                                                            41
                                                                                     benchmark.sortIntegers( n: 51200);
                                                                                     //benchmark.sortStrings(Arrays.stream(args).map(Integer::parsi
//benchmark.sortLocalDateTimes(100000);
                    Partition
                                                            42
                    Partitioner
                                                            43
                                                            44
                    © QuickSort
                                                            45
                    QuickSort 3way
                                                                              // CONSIDER generifying common code (but it's difficult if not imprivate void sortIntegers(final int \overline{n}) {
                                                            46
                     QuickSort_DualPivot
                                                            47
                    © SelectionSort
                                                                                  final Random random = new Random();
                                                            48
                                                                        SortBenchmark > main()
                     Solution
SortBenchmark
  E:\Java\jdkl.8.0_131\bin\java.exe ...

2020-09-21 23:25:07 DEBUG Config - Config.get(huskysort, version) = null

2020-09-21 23:25:07 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-21 23:25:07 INFO SortBenchmark - No word counts specified on the command line

2020-09-21 23:25:07 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
```

## 3. initial array ordering situation: partially ordered

```
public static voiu main(string) | args/ throws idexception (
                                Config config = Config.Load(SortBenchmark.class);
            36
                                Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", op
                                if (args.length == 0) Logger.warn("No word counts specified on the command 1
            38
            39
                                SortBenchmark benchmark = new SortBenchmark(config);
           40
                                 //benchmark.sortIntegers(100000);
                                benchmark.sortIntegers( n: 50);
            41
                                //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
           42
           43
                                //benchmark.sortLocalDateTimes(100000);
            44
            45
                           // CONSIDER generifying common code (but it's difficult if not impossible)
           46
                           private void sortIntegers(final int n) {
           47
                                final Random random = new Random();
           48
                      SortBenchmark > main()
: SortBenchmark
     E:\Java\jdk1.8.@_131\bin\java.exe ...
2020-09-22 11:14:50 DEBUG Config - Config.get(huskysort, version) = null
     2020-09-22 11:14:50 INFO SortBenchmark - SortBenchmark main: null with word counts: [] 2020-09-22 11:14:50 WARN SortBenchmark - No word counts specified on the command line
\downarrow
2020-09-22 11:14:50 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
     2020-09-22 11:14:50 INFO TimeLogger - Raw time per run (mSec):
÷
     2020-09-22 11:14:50 INFO TimeLogger - Normalized time per run (n^2): 27.21 2020-09-22 11:14:50 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
hantic scarte nota math(sci.tuB[] auRs) runoms toexcehetou f
                36
                                        Config config = Config.Load(SortBenchmark.class);
                                        Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", (
                37
                                        if (args.length == 0) logger.warn("No word counts specified on the command
                38
                                        SortBenchmark benchmark = new SortBenchmark(config);
                39
                                         //benchmark.sortIntegers(100000);
                40
                41
                                        benchmark.sortIntegers( n: 100);
                                        //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                42
                43
                                        //benchmark.sortLocalDateTimes(100000);
                44
                45
                                  // CONSIDER generifying common code (but it's difficult if not impossible)
                46
                                  private void sortIntegers(final int n) {
                17
                48
                                        final Random random = new Random();
                            SortBenchmark > main()
      SortBenchmark
        E:\Java\jdk1.8.0_131\bin\java.exe ...

2020-09-22 11:16:08 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:16:08 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:16:08 WARN SortBenchmark - No word counts specified on the command line
  \downarrow
- <del>-</del> =
         2020-09-22 11:16:08 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>
        2020-09-22 11:16:08 INFO TimeLogger - Raw time per run (mSec):
  =
         2020-09-22 11:16:08 INFO TimeLogger - Normalized time per run (n^2): 11.45
         2020-09-22 11:16:08 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
   Î
                                   Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName:
             36
                                    if (args.length == 0) Logger.warn("No word counts specified on the command line");
              38
                                   SortBenchmark benchmark = new SortBenchmark(config);
                                    //benchmark.sortIntegers(100000);
              40
              41
                                   benchmark.sortIntegers( n: 200);
                                    //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
              43
                                    //benchmark.sortLocalDateTimes(100000);
              44
                              }
              45
                              // CONSIDER generifying common code (but it's difficult if not impossible)
              46
                              private void sortIntegers(final int n) {
              47
                                   final Random random = new Random():
              48
                        SortBenchmark > main()
       SortBenchmark
      E:\Java\jdkl.8.9_13\bin\java.exe ...

2020-09-22 11:16:32 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:16:32 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:16:32 WARN SortBenchmark - No word counts specified on the command line

2020-09-22 11:16:32 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
 =
 =↓
       2020-09-22 11:16:32 INFO TimeLogger - Raw time per run (mSec): .16
2020-09-22 11:16:32 INFO TimeLogger - Normalized time per run (n^2): 2.68
2020-09-22 11:16:32 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
 =
```

```
public static void main(String[] args) throws IOException {
                                  Config config = Config.Load(SortBenchmark.class);
      36
                                  logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionNa
if (args.length == 0) logger.warn("No word counts specified on the command line");
      38
                                  SortBenchmark benchmark = new SortBenchmark(config);
      40
                                   //benchmark.sortIntegers(100000);
                                  benchmark.sortIntegers( n: 400);
      41
                                   //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
      42
                                  //benchmark.sortLocalDateTimes(100000);
      43
      44
      45
      46
                           // CONSIDER generifying common code (but it's difficult if not impossible)
                           private void sortIntegers(final int n) {
      47
      48
                                  final Random random = new Random();
       40
ortBenchmark
:\Java\jdk1.8.0_131\bin\java.exe ...
120-09-22 11:17:00 DEBUG Config - Config.get(huskysort, version) = null
120-09-22 11:17:00 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
120-09-22 11:17:00 WARN SortBenchmark - No word counts specified on the command line
120-09-22 11:17:00 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
320-09-22 11:17:00 INFO TimeLogger - Raw time per run (mSec): .25
)20-09-22 11:17:00 INFO TimeLogger - Normalized time per run (n^2): 1.04
020-09-22 11:17:00 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
                                 public static void main(String[] args) throws IOException {
              36
                                       Config config = Config.Load(SortBenchmark.class);
              37
                                        Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "ve
                                       if (args.length == 0) logger.warn("No word counts specified on the command line");
              38
                                       SortBenchmark benchmark = new SortBenchmark(config);
                                        //benchmark.sortIntegers(100000);
              40
                                       benchmark.sortIntegers( n: 800);
                                       //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
              42
              43
                                        //benchmark.sortLocalDateTimes(100000);
              44
              45
                                 // CONSIDER generifying common code (but it's difficult if not impossible)
              46
                                 private void sortIntegers(final int n) {
              47
                                        final Random random = new Random();
              48
      SortBenchmark
      Et/Java/jdkl.8.0_131\bin\java.exe ...

2020-09-22 11:17:29 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:17:29 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:17:29 MRN SortBenchmark - No word counts specified on the command line

2020-09-22 11:17:29 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
      2020-09-22 11:17:29 INFO TimeLogger - Raw time per run (mSec): .51
2020-09-22 11:17:29 INFO TimeLogger - Normalized time per run (n^2): .53
2020-09-22 11:17:29 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
                               public static void main(String[] args) throws IOException {
                                    Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "version")
if (args.length == 0) Logger.warn("No word counts specified on the command line");
            36
             38
                                     SortBenchmark benchmark = new SortBenchmark(config);
             39
             40
                                     //benchmark.sortIntegers(100000
                                     benchmark.sortIntegers( n: 1600);
                                    //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
             42
             43
             44
             45
                              // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \stackrel{n}{\mbox{n}} } {
             46
             47
                                     final Random random = new Random();
                         SortBenchmark → main()
     Ellyawajdki.8.e j.31\bin\java.exe ...

2020-09-22 11:18:01 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:18:01 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:18:01 MARN SortBenchmark - No word counts specified on the command line

2020-09-22 11:18:01 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=
<u>=</u>
     2020-09-22 11:18:01 INFO TimeLogger - Raw time per run (mSec): 1.51
2020-09-22 11:18:01 INFO TimeLogger - Normalized time per run (n^2): .39
2020-09-22 11:18:01 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
î
```

```
35
                                     public static void main(String[] args) throws IOException {
                                             Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "ver
if (args.length == 0) Logger.warn("No word counts specified on the command line");
               36
                38
                39
                                             SortBenchmark benchmark = new SortBenchmark(config);
                40
                                              //benchmark.sortIntegers(100000)
                41
                                             benchmark.sortIntegers( n: 3200);
                                             //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
               42
                                             //benchmark.sortLocalDateTimes(100000);
                43
                44
                45
                46
                                      // CONSIDER generifying common code (but it's difficult if not impossible)
                                     private void sortIntegers(final int n) {
                47
                                             final Random random = new Random():
                48
                              SortBenchmark > main()
      SortBenchmark
      E:\Java\jakl.8.0_131\bin\java.exe ...

2020-09-22 11:18:24 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:18:24 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:18:24 ANR SortBenchmark - No word counts specified on the command line

2020-09-22 11:18:24 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=
<u>=</u>
      2020-09-22 11:18:25 INFO TimeLogger - Raw time per run (mSec): 6.71
2020-09-22 11:18:25 INFO TimeLogger - Normalized time per run (n^2): .44
2020-09-22 11:18:25 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
=
î
                                       public static void main(String[] args) throws IOException {
                 35
                                               Config config = Config.load(SortBenchmark.class);
                 36
                                               logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "ve if (args.length == 0) logger.warn("No word counts specified on the command line");
                  38
                                               SortBenchmark benchmark = new SortBenchmark(config);
                                                //benchmark.sortIntegers(100000);
                 40
                                              benchmark.sortIntegers(n: 6400);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                 41
                 42
                                               //benchmark.sortLocalDateTimes(100000);
                  43
                  44
                 45
                                      // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \frac{n}{n}) {
                 46
                 47
                                               final Random random = new Random();
                 48
        SortBenchmark
        E:\Java\jdk1.8.0_131\bin\java.exe ...
2020-09-22 11:18:52 DEBUG Config - Config.get(huskysort, version) = null
2020-09-22 11:18:52 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-22 11:18:52 MARN SortBenchmark - No word counts specified on the command line
        2020-09-22 11:18:52 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
 <u>=</u>↓
        2020-09-22 11:18:54 INFO Timelogger - Raw time per run (mSec): 20.68
2020-09-22 11:18:54 INFO Timelogger - Normalized time per run (n^2): .34
2020-09-22 11:18:54 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
 ÷
 ÷
                35
                                    public static void main(String[] args) throws IOException {
                                           Config config = Config.Load(SortBenchmark.class);
         36
                                           logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "version"
if (args.length == 0) logger.warn("No word counts specified on the command line");
SortBenchmark benchmark = new SortBenchmark(config);
                38
                                            //benchmark.sortIntegers(100000);
                40
                                           benchmark.sortIntegers( n: 12800);
//benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                41
                42
                                            //benchmark.sortLocalDateTimes(100000);
                43
                44
                45
                46
                                     // CONSIDER generifying common code (but it's difficult if not impossible)
                47
                                    private void sortIntegers(final int n) {
                48
                                           final Random random = new Random():
                              SortBenchmark > main()
     SortBenchmark
       E:\Java|jdkl.8.0_131\bin\java.exe ...

2020-09-22 11:19:21 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:19:21 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:19:21 WARN SortBenchmark - No word counts specified on the command line

2020-09-22 11:19:21 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=
<u>=</u>↓
       2020-09-22 11:19:30 INFO Timelogger - Raw time per run (mSec): 80.62
2020-09-22 11:19:30 INFO Timelogger - Normalized time per run (n^2): .33
2020-09-22 11:19:30 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
```

```
35
                                   public static void main(String[] args) throws IOException {
                                          Config config = Config.Load(SortBenchmark.class);
               36
                                         logger.info("SortBenchmark.main: " + config.get(sectionName: "huskysort", optionName: "vers if (args.length == 0) logger.warn("No word counts specified on the command line");
               38
                                         SortBenchmark benchmark = new SortBenchmark(config);
               40
                                          //benchmark.sortIntegers(100000)
                                         benchmark.sortIntegers( n: 25600);
               42
                                          //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
               43
                                         //benchmark.sortLocalDateTimes(100000);
               44
               45
               46
                                   // CONSIDER generifying common code (but it's difficult if not impossible)
               47
                                   private void sortIntegers(final int n) {
                                         final Random random = new Random():
               48
                            SortBenchmark > main()
  SortBenchmark
      E:\Java\jdk1.8.0_131\bin\java.exe ...

2020-09-22 11:20:04 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:20:04 INFO

SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:20:04 NARN

SortBenchmark - No word counts specified on the command line

2020-09-22 11:20:04 INFO

Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
      2020-09-22 11:20:42 INFO TimeLogger - Raw time per run (mSec): 338.37
2020-09-22 11:20:42 INFO TimeLogger - Normalized time per run (n^2): .34
2020-09-22 11:20:42 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
```

## 4. initial array ordering situation: reverse-ordered

```
public static void main(String[] args) throws IOException {
                          35
                                                                   Config config = Config.Load(SortBenchmark.class);
                           36
                                                                  logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "versic
if (args.length == 0) logger.warn("No word counts specified on the command line");
                           38
                                                                   SortBenchmark benchmark = new SortBenchmark(config);
                                                                    //benchmark.sortIntegers(100000);
                                                                  benchmark.sortIntegers( n: 50);
                                                                  //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocalDateTimes(100000);
                          42
                                                        // CONSIDER generifying common code (but it's difficult if not impossible)
                          46
                                                        private void sortIntegers(final int n) {
                                              SortBenchmark > main()
             SortBenchmark
            Et/Javajdkl.8.0_131\bin\java.exe ...

2020-09-22 11:36:05 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:36:05 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:36:05 MRN SortBenchmark - No word counts specified on the command line

2020-09-22 11:36:05 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
    \downarrow
=
             2020-09-22 11:36:05 INFO TimeLogger - Raw time per run (mSec): .10
2020-09-22 11:36:05 INFO TimeLogger - Normalized time per run (n^2): 27.21
2020-09-22 11:36:05 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
   =
    ÷
               35
                                                         public static void main(String[] args) throws IOException {
                                                                    Config config = Config.Load(SortBenchmark.class);
                         36
                                                                     {\it logger.} in fo ("SortBenchmark.main: " + config.get (sectionName: "huskysort", optionName: 
                         37
                                                                    if (args.length == 0) Logger.warn("No word counts specified on the command line");
                         38
                         39
                                                                    SortBenchmark benchmark = new SortBenchmark(config);
                         40
                                                                      //benchmark.sortIntegers(100000)
                         41
                                                                    benchmark.sortIntegers( n: 100);
                         42
                                                                     //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                         43
                                                                     //benchmark.sortLocalDateTimes(100000);
                         44
                         45
                                                          // CONSIDER generifying common code (but it's difficult if not impossible)
                         46
                         47
                                                         private void sortIntegers(final int n) {
                                              SortBenchmark > main()
           SortBenchmark
           E:\Java\jdk1.8.0_131\bin\java.exe ..
           2020-09-22 11:37:09 DEBUG Config - Config.get(huskysort, version) = null 2020-09-22 11:37:09 INFO SortBenchmark - SortBenchmark.main: null with word counts: [] 2020-09-22 11:37:09 WARN SortBenchmark - No word counts specified on the command line
           2020-09-22 11:37:09 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>
          2020-09-22 11:37:09 INFO Timelogger - Raw time per run (mSec): .29 2020-09-22 11:37:09 INFO Timelogger - Normalized time per run (n^2): 19.53
÷
 î
           2020-09-22 11:37:09 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
35
                                                             public static void main(String[] args) throws IOException {
                                                                          Config config = Config.load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "huskysor
                                                                           if (args.length == 0) logger.warn("No word counts specified on the command line"
                           38
                                                                          SortBenchmark benchmark = new SortBenchmark(config);
                                                                            //benchmark.sortIntegers(100000):
                                                                          benchmark.sortIntegers( n: 200);
                           41
                                                                           //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                           42
                                                                           //benchmark.sortLocalDateTimes(100000);
                           45
                                                               // CONSIDER generifying common code (but it's difficult if not impossible)
                           46
                           47
                                                              private void sortIntegers(final int n) {
                                                  SortBenchmark > main()
            SortBenchmark
             E:\Java\jdk1.8.0_131\bin\java.exe ..
            2020-09-22 11:37:32 DEBUG Config - Config.get(huskysort, version) = null 2020-09-22 11:37:32 INFO SortBenchmark - SortBenchmark.main: null with word counts: [] 2020-09-22 11:37:32 WARN SortBenchmark - No word counts specified on the command line
            2020-09-22 11:37:32 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
           2020-09-22 11:37:32 INFO \, TimeLogger - Raw time per run (mSec): .19 2020-09-22 11:37:32 INFO \, TimeLogger - Normalized time per run (n^2): 3.18
÷
            2020-09-22 11:37:32 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
 î
                                                           public static void main(String[] args) throws IOException {
                        35
                                                                      Config config = Config.load(SortBenchmark.class);

Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName
                         36
                                                                        if (args.length == 0) Logger.warn("No word counts specified on the command line");
                         38
                                                                       SortBenchmark benchmark = new SortBenchmark(config);
                         40
                                                                        //benchmark.sortIntegers(100000);
                         41
                                                                       benchmark.sortIntegers( n: 400);
                                                                       //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                         42
                         43
                                                                       //benchmark.sortLocalDateTimes(100000);
                         44
                         45
                                                            // CONSIDER generifying common code (but it's difficult if not impossible)
                         46
                                                           private void sortIntegers(final int n) {
                                                SortBenchmark > main()
      SortBenchmark
          E:\Java\jdk1.8.0_131\bin\java.exe ...
2020-09-22 11:37:55 DEBUG Config - Config.get(huskysort, version) = null
2020-09-22 11:37:55 INFO SortBenchmark - SortBenchmark.main: null with word counts: []
2020-09-22 11:37:55 MARN SortBenchmark - No word counts specified on the command line
2020-09-22 11:37:55 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
           2020-09-22 11:37:55 INFO TimeLogger - Raw time per run (mSec): .26
2020-09-22 11:37:55 INFO TimeLogger - Normalized time per run (n^2): 1.09
           2020-09-22 11:37:55 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
î
                           35
                                                              public static void main(String[] args) throws IOException {
                                                                          Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get(sectionName: "huskysort", optionName: "huskysort
                            36
                                                                          if (args.length == 0) Logger.warn("No word counts specified on the command line");
                            38
                                                                          SortBenchmark benchmark = new SortBenchmark(config);
                            40
                                                                            //benchmark.sortIntegers(100000);
                            41
                                                                          benchmark.sortIntegers( n: 800);
                           42
                                                                           //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                            43
                                                                           //benchmark.sortLocalDateTimes(100000);
                            44
                                                             }
                            45
                                                               // CONSIDER generifying common code (but it's difficult if not impossible)
                            46
                            47
                                                               private void sortIntegers(final int n) {
                                                   SortBenchmark > main()
             SortBenchmark
            E:\Java\jdkl.8.0_131\bin\java.exe ...

2020-09-22 11:38:17 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:38:17 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:38:17 WARN SortBenchmark - No word counts specified on the command line

2020-09-22 11:38:17 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
             2020-09-22 11:38:17 INFO TimeLogger - Raw time per run (mSec): .80 2020-09-22 11:38:17 INFO TimeLogger - Normalized time per run (n^2):
             2020-09-22 11:38:17 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
```

```
35
                                  public static void main(String[] args) throws IOException {
                                         Config config = Config.load(SortBenchmark.class);
               36
                                         Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "v
                                         if (args.length == 0) Logger.warn("No word counts specified on the command line");
               38
                                         SortBenchmark benchmark = new SortBenchmark(config);
               40
                                          //benchmark.sortIntegers(100000)
                                         benchmark.sortIntegers( n: 1600);
               41
                                         //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
               42
                                         //benchmark.sortLocalDateTimes(100000);
               43
               45
                                  // CONSIDER generifying common code (but it's difficult if not impossible)
               46
                                  private void sortIntegers(final int n) {
               47
                            SortBenchmark > main()
       SortBenchmark
      E:\Java\data.131\bin\java.exe ...

2020-09-22 11:38:45 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:38:45 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:38:45 MRN SortBenchmark - No word counts specified on the command line

2020-09-22 11:38:45 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
=↓
       2020-09-22 11:38:45 INFO TimeLogger - Raw time per run (mSec): 3.70
2020-09-22 11:38:45 INFO TimeLogger - Normalized time per run (n^2): .96
2020-09-22 11:38:45 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
 ÷
 î
      35 ▶
                                  public static void main(String[] args) throws IOException {
                                         Config config = Config.Load(SortBenchmark.class);
               36
                                         Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "v
                                         if (args.length == 0) Logger.warn("No word counts specified on the command line");
               39
                                         SortBenchmark benchmark = new SortBenchmark(config);
               40
                                         //benchmark.sortIntegers(100000);
                                         benchmark.sortIntegers( n: 3200);
               41
                                         //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
               42
                                         //benchmark.sortLocalDateTimes(100000);
               43
               44
                                  // CONSIDER generifying common code (but it's difficult if not impossible)
               46
               47
                                 private void sortIntegers(final int n) {
                            SortBenchmark > main()
   SortBenchmark
      E:\Java\jdkl.8.0_131\bin\java.exe ...

2020-09-22 11:39:12 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:39:12 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:39:12 MANN SortBenchmark - No word counts specified on the command line

2020-09-22 11:39:12 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
<u>=</u>↓
      2020-09-22 11:39:13 INFO Timelogger - Raw time per run (mSec): 12.17
2020-09-22 11:39:13 INFO Timelogger - Normalized time per run (n^2): .79
2020-09-22 11:39:13 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
÷
 i
              35
                                  public static void main(String[] args) throws IOException {
                                         Config config = Config.Load(SortBenchmark.class);
Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName:
if (args.length == 0) Logger.warn("No word counts specified on the command line");
               36
               38
                                         SortBenchmark benchmark = new SortBenchmark(config);
                                         //benchmark.sortIntegers(100000
               40
                                         benchmark.sortIntegers( n: 6400);
               41
                                         //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
               42
                                         //benchmark.sortLocalDateTimes(100000);
               43
               45
                                  // CONSIDER generifying common code (but it's difficult if not impossible)
               46
               47
                                  private void sortIntegers(final int n) {
                            SortBenchmark > main()
      SortBenchmark
      E:\Java\jdkl.8.9_13\bin\java.exe ...

2020-09-22 11:39:35 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:39:35 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:39:38 MARN SortBenchmark - No word counts specified on the command line

2020-09-22 11:39:35 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
===
<u>=</u>↓
      2020-09-22 11:39:39 INFO TimeLogger - Raw time per run (mSec): 41.87
2020-09-22 11:39:39 INFO TimeLogger - Normalized time per run (n^2): .68
2020-09-22 11:39:39 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
=
î
```

```
public static void main(String[] args) throws IOException {
             35 ▶
                                                      Config config = Config.load(SortBenchmark.class);

logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionNaif (args.length == 0) logger.warn("No word counts specified on the command line");
                     36
                     38
                                                      SortBenchmark benchmark = new SortBenchmark(config);
                                                       //benchmark.sortIntegers(100000)
                     40
                                                      benchmark.sortIntegers( n: 12800);
                     41
                                                      //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
                    42
                                                      //benchmark.sortLocalDateTimes(100000);
                    43
                    44
                    45
                                              // CONSIDER generifying common code (but it's difficult if not impossible)
                    46
                                             private void sortIntegers(final int n) {
                    47
                                     SortBenchmark > main()
          SortBenchmark
           E:\Java\jdk1.8.0_131\bin\java.exe ..
          2020-09-22 11:40:02 DEBUG Config - Config.get(huskysort, version) = null 2020-09-22 11:40:02 INFO SortBenchmark - SortBenchmark.main: null with word counts: [] 2020-09-22 11:40:02 INFO Benchmark - No word counts specified on the command line 2020-09-22 11:40:02 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
  <u>=</u>†
          2020-09-22 11:40:21 INFO TimeLogger - Raw time per run (mSec): 164.81 2020-09-22 11:40:21 INFO TimeLogger - Normalized time per run (n^2): .67 2020-09-22 11:40:21 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
  ÷
                                        public static void main(String[] args) throws IOException {
             35
                                               Config config = Config.Load(SortBenchmark.class);

Logger.info("SortBenchmark.main: " + config.get( sectionName: "huskysort", optionName: "version")

if (args.length == 0) Logger.warn("No word counts specified on the command line");

SortBenchmark benchmark = new SortBenchmark(config);
                  36
37
                   38
                   39
                  40
                                                 //benchmark.sortIntegers(100000)
                                                benchmark.sortIntegers( n: 25600);
                  41
                                                //benchmark.sortStrings(Arrays.stream(args).map(Integer::parseInt));
//benchmark.sortLocaLDateTimes(100000);
                  42
                  43
                                        }
                  44
                  45
                                       // CONSIDER generifying common code (but it's difficult if not impossible) private void sortIntegers(final int \stackrel{n}{n}) {
                  46
                  47
                                 SortBenchmark → main()
n: SortBenchmark
        E:\Java\jdkl.8.0_131\bin\java.exe ...

2020-09-22 11:41:01 DEBUG Config - Config.get(huskysort, version) = null

2020-09-22 11:41:01 INFO SortBenchmark - SortBenchmark.main: null with word counts: []

2020-09-22 11:41:01 INFO SortBenchmark - No word counts specified on the command line

2020-09-22 11:41:01 INFO Benchmark_Timer - Begin run: intArraysorter with 100 runs
  <u>=</u>↓
         2020-09-22 11:42:13 INFO TimeLogger - Raw time per run (mSec): 653.99
2020-09-22 11:42:13 INFO TimeLogger - Normalized time per run (n^2): .67
2020-09-22 11:42:13 INFO Benchmark_Timer - Begin run: integerArraysorter with 100 runs
  ₽
```