

```
1 "C:\Program Files\Amazon Corretto\jdk15.0.2_7\bin\
  java.exe" "-javaagent:C:\Program Files\JetBrains\
  IntelliJ IDEA Community Edition 2020.3.1\lib\idea_rt.
  jar=63540:C:\Program Files\JetBrains\IntelliJ IDEA
  Community Edition 2020.3.1\bin" -Dfile.encoding=UTF-8
  -classpath C:\Users\zalwa\IdeaProjects\
  Part1_SortingRunningTimes\out\production\
  Part1_SortingRunningTimes SortingRunTimeTester
2 array size: 50000
-----
3 bubble sort run-time(ms):    0.08028
4 selection sort run-time(ms): 0.01968
5 insertion sort run-time(ms): 0.0053
6 merge sort run-time(ms):     3.2E-4
7 quick sort run-time(ms):     6.2E-4
8 array size: 100000
-----
9 bubble sort run-time(ms):    0.17065
10 selection sort run-time(ms): 0.03476
11 insertion sort run-time(ms): 0.00875
12 merge sort run-time(ms):     1.5E-4
13 quick sort run-time(ms):     1.6E-4
14 array size: 150000
-----
15 bubble sort run-time(ms):    0.2008
16 selection sort run-time(ms): 0.05213333333333333
17 insertion sort run-time(ms): 0.013226666666666666
18 merge sort run-time(ms):     2.0666666666666666E-4
19 quick sort run-time(ms):     3.133333333333333E-4
20 array size: 200000
-----
21 bubble sort run-time(ms):    0.27232
22 selection sort run-time(ms): 0.072635
23 insertion sort run-time(ms): 0.01823
24 merge sort run-time(ms):     1.1E-4
25 quick sort run-time(ms):     1.5E-4
26 array size: 250000
-----
27 bubble sort run-time(ms):    0.338052
28 selection sort run-time(ms): 0.08972
29 insertion sort run-time(ms): 0.023964
30 merge sort run-time(ms):     6.4E-5
31 quick sort run-time(ms):     1.88E-4
32 array size: 300000
```

```
32 -----
33 bubble sort run-time(ms):    0.39753666666666665
34 selection sort run-time(ms): 0.10657
35 insertion sort run-time(ms): 0.0306
36 merge sort run-time(ms):     1.0666666666666667E-4
37 quick sort run-time(ms):     1.0333333333333333E-4
38 array size: 350000
39 -----
39 bubble sort run-time(ms):    0.46990857142857145
40 selection sort run-time(ms): 0.12959714285714286
41 insertion sort run-time(ms): 0.035371428571428574
42 merge sort run-time(ms):     8.857142857142857E-5
43 quick sort run-time(ms):     8.857142857142857E-5
44 array size: 400000
45 -----
45 bubble sort run-time(ms):    0.5411575
46 selection sort run-time(ms): 0.1429175
47 insertion sort run-time(ms): 0.0392225
48 merge sort run-time(ms):     9.75E-5
49 quick sort run-time(ms):     9.0E-5
50 array size: 450000
51 -----
51 bubble sort run-time(ms):    0.59904444444444445
52 selection sort run-time(ms): 0.16128666666666666
53 insertion sort run-time(ms): 0.04570444444444444
54 merge sort run-time(ms):     1.911111111111111E-4
55 quick sort run-time(ms):     1.2444444444444444E-4
56 array size: 500000
57 -----
57 bubble sort run-time(ms):    0.667218
58 selection sort run-time(ms): 0.179846
59 insertion sort run-time(ms): 0.05044
60 merge sort run-time(ms):     1.58E-4
61 quick sort run-time(ms):     9.2E-5
62
63 Process finished with exit code 0
64
```