

```
"E:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:E:\Program Files\
JetBrains\IntelliJ IDEA 2021.2\lib\idea_rt.jar=51201:E:\Program Files\
JetBrains\IntelliJ IDEA 2021.2\bin" -Dfile.encoding=UTF-8 -classpath E:\
my_projects\It-Step\java\2022_03_16\out\production\2022_03_23 org.dng.
dz53_6
```

the original array is:

```
{ 1 3 2 5 4 }
```

```
{ 0 9 8 4 3 5 6 }
```

min value of array calculated by the fori-meth is 0

Time for calculate min value of 2-dimension array is :17 ms

min value of array calculated by the Stream-meth is 0

Time for calculate min value of 2-dimension array using stream is :5 ms

max value of array calculated by the fori-meth is 9

Time for calculate max value of 2-dimension array is :0 ms

max value of array calculated by the Stream-meth is 9

Time for calculate max value of 2-dimension array using stream is :1 ms

duplicated values and its indexes are [duplicated_value, line, column]:

```
[3, 1, 2]
```

```
[5, 1, 4]
```

```
[4, 1, 5]
```

```
[4, 2, 4]
```

```
[3, 2, 5]
```

```
[5, 2, 6]
```

Time for search duplicated values in 2-dimension array is :0 ms

The number of duplicated values is 3

Value 3 occurs 2 time(s)

line = 1 column = 2

line = 2 column = 5

Value 4 occurs 2 time(s)

line = 1 column = 5

line = 2 column = 4

Value 5 occurs 2 time(s)

line = 1 column = 4

line = 2 column = 6

Time for search duplicated values in 2-dimension array using HashMap/
someObjects/stream is :25 ms

Process finished with exit code 0