Test Discussion

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Testing Overview

To test my program, I will be using two sets of values.

The first set will be [8, 10, 10, 10, 11, 14]. The computation results should be:

Insert: All values are inserted into the array.

Sum: 63

Average: 10.5

Min: 8

Median: 10 and 10

Delete: All 10's are deleted from the array.

The second set will be [1, 5, 9, 4, 2]. The computation results should be:

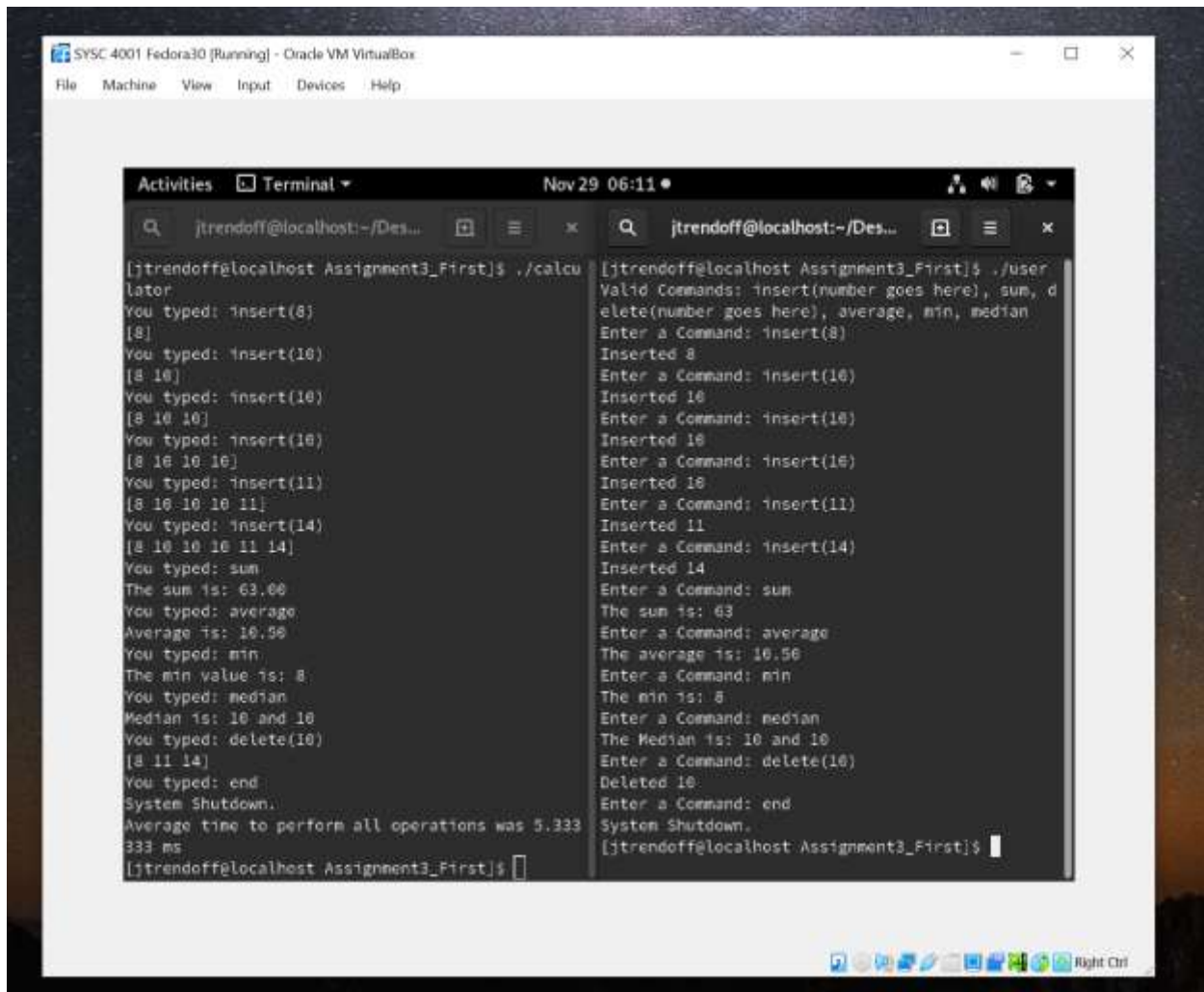Insert: All values are inserted into the array.

Sum: 21

Average: 4.2

Min: 1

Median: 4

Delete: The 1 will be deleted.

Please note that, as shown in the pictures, these tests were successfully run on the lab machine.
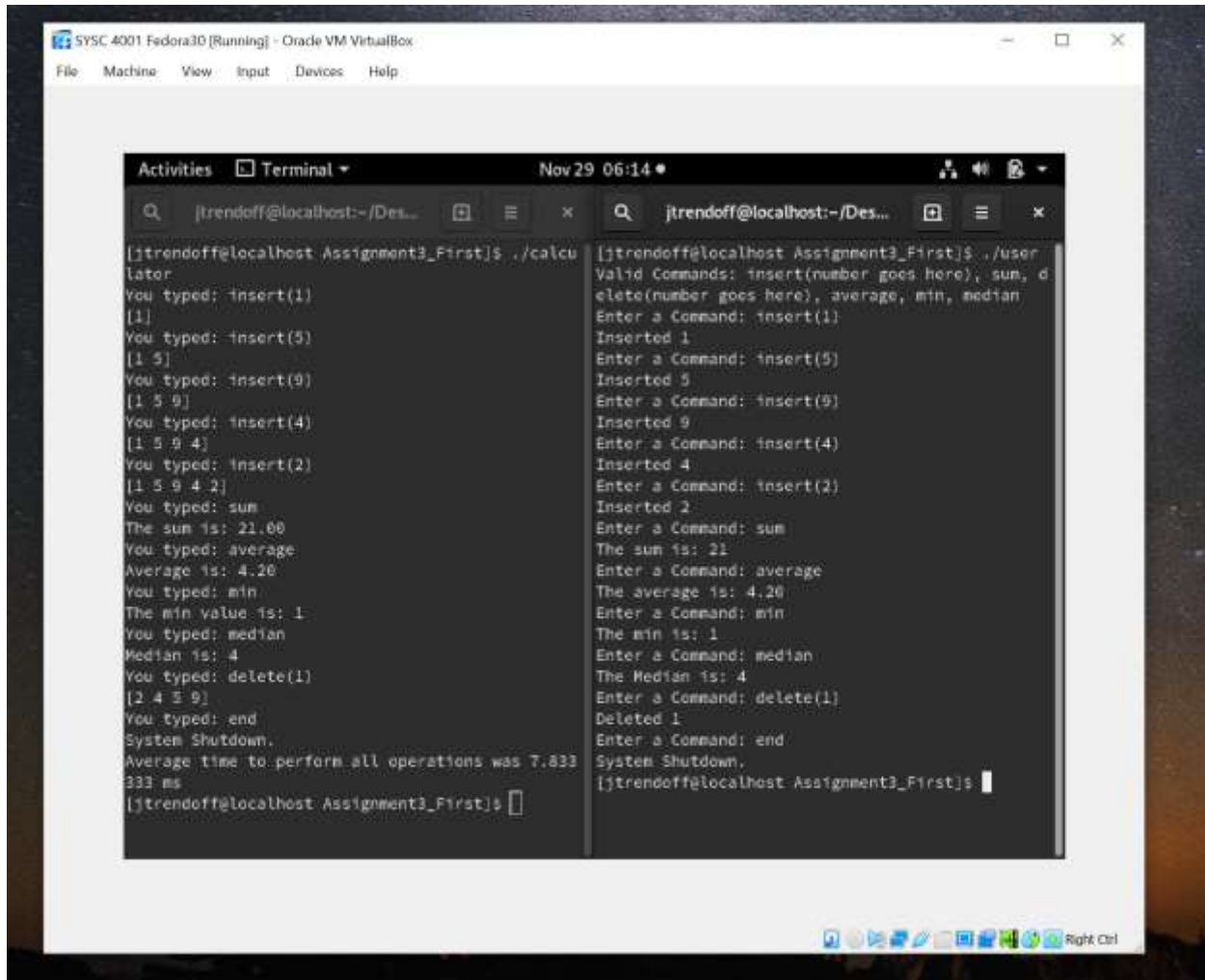
Test Results of Set 1

Activities   Terminal ▾   Nov 29 06:11 ●

Q   jtrendoff@localhost:~/Des...   ⊞   ≡   ×   Q   jtrendoff@localhost:~/Des...   ⊞   ≡   ×

```
[jtrendoff@localhost Assignment3_First]$ ./calcu
lator
You typed: insert(8)
[8]
You typed: insert(10)
[8 10]
You typed: insert(10)
[8 10 10]
You typed: insert(10)
[8 10 10 10]
You typed: insert(11)
[8 10 10 10 11]
You typed: insert(14)
[8 10 10 10 11 14]
You typed: sum
The sum is: 63.00
You typed: average
Average is: 10.50
You typed: min
The min value is: 8
You typed: median
Median is: 10 and 10
You typed: delete(10)
[8 11 14]
You typed: end
System Shutdown.
Average time to perform all operations was 5.333
333 ms
[jtrendoff@localhost Assignment3_First]$
```

```
[jtrendoff@localhost Assignment3_First]$ ./user
Valid Commands: insert(number goes here), sum, d
elete(number goes here), average, min, median
Enter a Command: insert(8)
Inserted 8
Enter a Command: insert(10)
Inserted 10
Enter a Command: insert(10)
Inserted 10
Enter a Command: insert(10)
Inserted 10
Enter a Command: insert(11)
Inserted 11
Enter a Command: insert(14)
Inserted 14
Enter a Command: sum
The sum is: 63
Enter a Command: average
The average is: 10.50
Enter a Command: min
The min is: 8
Enter a Command: median
The Median is: 10 and 10
Enter a Command: delete(10)
Deleted 10
Enter a Command: end
System Shutdown.
[jtrendoff@localhost Assignment3_First]$
```

Right Ctrl

Test Results of Set 2

Conclusion

As you can see from the test results, the program works as intended. You may notice that the list is sorted after the call to median, that is due to the fact the median operator sorts the list first before calculating the median. However, this does not affect the other operations and, therefore, should not be a worry.