

Program 1 Report

Author: Haram Kwon

Test

Shell.java Test

Compare with Answer *.class

The left side is my output, and the right-side is from the output code from the Prof. Robert. With vimdiff, I can visually see what's wrong output.

By this comparison, I can see there is no practical difference between two output, and it seems they are very similar (Some differences because I tested the code on different machine, and since no process has priority, the order of the output might differ.)

Exit test

I tested the code with exit, and I notice that the program exit very normally without any problem.

Test process.cpp

Test with Prof. Dempsey's test case

```
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes kworker
37
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep kworker | wc -l
37
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes sshd
7
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep sshd | wc -l
7
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes scsi
```

```
12
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep scsi | wc -l
12
```

For these cases, the code runs similar to each other. Therefore, the code is running smoothly

Code without argument

```
kharam@LAPTOP-0R77C1R:/mnt/c/Users/khara/Documents/OS/Assignment_1$ ./processes
Usage: grep [OPTION]... PATTERN [FILE]...
Try 'grep --help' for more information.
0
kharam@LAPTOP-0R77C1R:/mnt/c/Users/khara/Documents/OS/Assignment_1$ ps -A | grep
| wc -l
Usage: grep [OPTION]... PATTERN [FILE]...
Try 'grep --help' for more information.
0
```

They both shows the same output for the test case.

Code with more than 2 argument.

```
kharam@LAPTOP-0R77C1R:/mnt/c/Users/khara/Documents/OS/Assignment_1$ ./processes a
b c d
more than 2 aruement is not allowed
```

As the result shows, I don't allow input more than 2.

Report output

Process.cpp

```
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes kworker
37
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep kworker | wc -l
37
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes sshd
7
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep sshd | wc -l
7
kharam@uw1-320-01:~/OS/Assignment_1$ ./processes scsi
12
kharam@uw1-320-01:~/OS/Assignment_1$ ps -A | grep scsi | wc -l
12
```

```

-->1 Shell
1 Shell
threadOS: a new thread (thread=Thread[Thread-5,2,main] tid=1 pid=0)
shell[1]%PingPong abc 100 ; PingPong xyz 50 ; PingPong 123 100
PingPong
threadOS: a new thread (thread=Thread[Thread-7,2,main] tid=2 pid=1)
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
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abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
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abc abc abc abc abc abc abc abc abc abc
abc abc abc abc
PingPong
threadOS: a new thread (thread=Thread[Thread-9,2,main] tid=3 pid=1)
xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz xyz xyz xyz xyz xyz
xyz xyz xyz xyz
PingPong
threadOS: a new thread (thread=Thread[Thread-11,2,main] tid=4 pid=1)
123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123
123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123
123 123 123 123 123 123 123 123 123
123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123
123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123 123
123 123 123 123 123 123 123 123 123
123 123 123 123
shell[2]%PingPong abc 50 ; PingPong xyz 100 & PingPong 123 100
PingPong
threadOS: a new thread (thread=Thread[Thread-13,2,main] tid=5 pid=1)
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
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abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
abc abc abc abc abc abc abc abc abc abc
abc abc abc abc
PingPong
threadOS: a new thread (thread=Thread[Thread-15,2,main] tid=6 pid=1)
PingPong
threadOS: a new thread (thread=Thread[Thread-17,2,main] tid=7 pid=1)

```

[illegible]

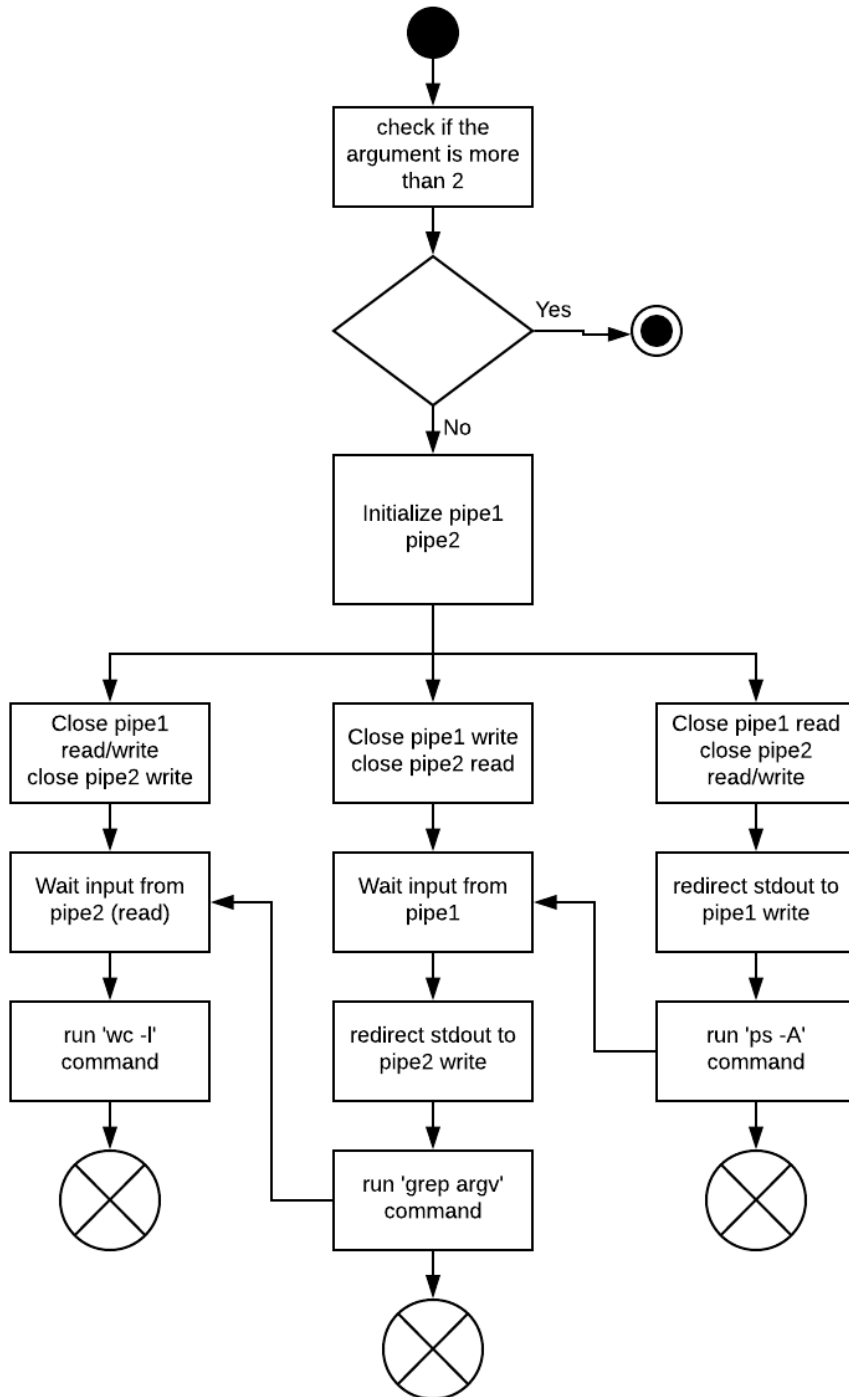
PingPong

threadOS: a new thread (thread=Thread[Thread-29,2,main] tid=13 pid=1)

```
abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc abc
xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc
xyz abc xyz abc xyz abc xyz abc
xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc xyz abc 123 xyz abc xyz abc 123 xyz abc
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shell[5]%
```

Flow Chart

processes.cpp



Shell.java

