

## Individual Feedback

In output for the dining philosopher problem, each philosopher should eat 7 times.

In producer-consumer problem, this implementation is supposed use 3 locks one for producer one for consumer and one just for the printing purpose. Your implementation with just one lock and 2 semaphores does not achieve desire concurrency.

```
~/cs510/p2
Haomin@LAPTOP-CSJB3RJP ~/cs510/p2
$ make
kp1 Main -unsafe
asm Main.s
ldd System.o List.o Thread.o Switch.o Synch.o Main.o Runtime.o -o os

Haomin@LAPTOP-CSJB3RJP ~/cs510/p2
$ blitz -g os
Beginning execution...
===== KPL PROGRAM STARTING =====
Example Thread-based Programs...
Initializing Thread Scheduler...

-- You should see 70 lines, each consecutively numbered. --

LockTester-A = 1
LockTester-A = 2
LockTester-B = 3
LockTester-C = 4
LockTester-D = 5
LockTester-E = 6
LockTester-A = 7
LockTester-F = 8
LockTester-G = 9
LockTester-C = 10
LockTester-B = 11
LockTester-D = 12
LockTester-A = 13
LockTester-F = 14
LockTester-E = 15
LockTester-G = 16
LockTester-C = 17
LockTester-D = 18
LockTester-A = 19
LockTester-F = 20
LockTester-B = 21
LockTester-G = 22
LockTester-E = 23
LockTester-C = 24
LockTester-D = 25
LockTester-A = 26
LockTester-F = 27
LockTester-G = 28
LockTester-B = 29
LockTester-C = 30
LockTester-E = 31
LockTester-D = 32
LockTester-A = 33
LockTester-F = 34
LockTester-G = 35
LockTester-B = 36
LockTester-C = 37
LockTester-D = 38
LockTester-E = 39
LockTester-F = 40
LockTester-A = 41
LockTester-G = 42
LockTester-C = 43
LockTester-D = 44
LockTester-B = 45
LockTester-F = 46
LockTester-E = 47
LockTester-G = 48
LockTester-A = 49
LockTester-C = 50
LockTester-D = 51
LockTester-F = 52
LockTester-B = 53
LockTester-G = 54
LockTester-A = 55
LockTester-C = 56
```

```
~/cs510/p2
LockTester-A = 13
LockTester-F = 14
LockTester-E = 15
LockTester-G = 16
LockTester-C = 17
LockTester-D = 18
LockTester-A = 19
LockTester-F = 20
LockTester-B = 21
LockTester-G = 22
LockTester-E = 23
LockTester-C = 24
LockTester-D = 25
LockTester-A = 26
LockTester-F = 27
LockTester-G = 28
LockTester-B = 29
LockTester-C = 30
LockTester-E = 31
LockTester-D = 32
LockTester-A = 33
LockTester-F = 34
LockTester-G = 35
LockTester-B = 36
LockTester-C = 37
LockTester-D = 38
LockTester-E = 39
LockTester-F = 40
LockTester-A = 41
LockTester-G = 42
LockTester-C = 43
LockTester-D = 44
LockTester-B = 45
LockTester-F = 46
LockTester-E = 47
LockTester-G = 48
LockTester-A = 49
LockTester-C = 50
LockTester-D = 51
LockTester-F = 52
LockTester-B = 53
LockTester-G = 54
LockTester-A = 55
LockTester-C = 56
LockTester-E = 57
LockTester-D = 58
LockTester-F = 59
LockTester-B = 60
LockTester-G = 61
LockTester-C = 62
LockTester-D = 63
LockTester-F = 64
LockTester-E = 65
LockTester-G = 66
LockTester-B = 67
LockTester-E = 68
LockTester-B = 69
LockTester-E = 70

***** A 'wait' instruction was executed and no more interrupts are scheduled... halting emulation! *****

Done! The next instruction to execute will be:
000EC8: 09000000    ret
Number of Disk Reads    = 0
Number of Disk Writes   = 0
Instructions Executed    = 416026
Time Spent Sleeping      = 0
    Total Elapsed Time   = 416026

Haomin@LAPTOP-CSJB3RJP ~/cs510/p2
$
```

```

~/cs510/p2
kpl Main -unsafe
asm Main.s
lddd System.o List.o Thread.o Switch.o Synch.o Main.o Runtime.o -o os

Haomin@LAPTOP-CSJB3RJP ~/cs510/p2
$ blitz -g os
Beginning execution...
===== KPL PROGRAM STARTING =====
Example Thread-based Programs...
Initializing Thread Scheduler...
A      Producer-A      A      B
AB     Producer-B      B
ABB    Producer-B      B
ABBB   Producer-C      C
ABBBB  Consumer-1      |      A      B
BBBC   Consumer-2      |      B
BBC    Consumer-3      |      B
BC     Producer-C      C
BCC    Producer-D      D
BCCD   Producer-E      E
BCCDE  Consumer-1      |      B      C
CCDE   Consumer-2      |      C
CDE    Consumer-3      |      D
DE     Consumer-2      |      E
E      Producer-A      A
EA     Consumer-1      |      E
A      Producer-B      B
AB     Producer-C      C
ABC    Producer-D      D
ABCD   Consumer-3      |      A
BCD    Producer-E      E
BCDE   Consumer-2      |      B
CDE    Consumer-1      |      C
DE     Consumer-3      |      D
E      Producer-A      A
EA     Consumer-2      |      E
A      Producer-B      B
AB     Producer-C      C
ABC    Producer-D      D
ABCD   Producer-E      E
ABCDE  Consumer-3      |      B      A
BCDE   Consumer-1      |      C
CDE    Consumer-2      |      D
DE     Consumer-3      |      E
E      Producer-A      A
EA     Consumer-1      |      E
A      Producer-C      C
AC     Producer-D      D
ACD    Producer-E      E
ACDE   Consumer-2      |      A
CDE    Consumer-3      |      C
DE     Producer-A      A
DEA    Consumer-1      |      D
EA     Consumer-2      |      E
A      Producer-D      D
AD     Producer-E      E
ADE    Consumer-3      |      A
DE     Consumer-1      |      D
E      Consumer-2      |      E

***** A 'wait' instruction was executed and no more interrupts are scheduled...
halting emulation! *****

Done! The next instruction to execute will be:
000EC8: 09000000      ret
Number of Disk Reads      = 0
Number of Disk Writes     = 0
Instructions Executed      = 243308
Time Spent Sleeping       = 0
Total Elapsed Time        = 243308

```

[illegible]

```
~/cs510/p2
E      E
E      .
E      .   E
E      .   E E
E      .   E E
      .   E
      .   E
      .   .   E
      .   E   E E
      .   E   E E
      .   E   E E
      .   E   E
      .   E   .
E      .   E   .
E      .   E
E      .   .
E      .   .   E
E      .   .   E E
      .   .   E E
      .   E   E E
      .   E   E E
      .   E   E
      .   E   .   E
      .   .   .   E E
      .   E   .   E E
      .   E   .   E E
      .   E   .   E E
      .   E   .   E E
      .   E   .   E
      .   E   .   .
      .   E   .   .
      .   .   .   E
      .   .   E   .   E
      .   E   .   E
      .   E   .   E
      .   .   .   .
      .   .   .   .

***** A 'wait' instruction was executed and no more interrupts are scheduled... halting emulation! *****
**

Done! The next instruction to execute will be:
000EC8: 09000000    ret
Number of Disk Reads    = 0
Number of Disk Writes   = 0
Instructions Executed    = 431190
Time Spent Sleeping     = 0
Total Elapsed Time      = 431190
```