

Step 5:
O/P of Mutex:

```
[pjoshi@ada:~/cs510/p2$ blitz -g os
Beginning execution...
===== KPL PROGRAM STARTING =====
Example Thread-based Programs...
Initializing Thread Scheduler...
Here is the ready list:
  Thread "idle-thread"      status=READY      (addr of Thread object: 0x000160A8)

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

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

```
LockTester-B = 54
LockTester-C = 55
LockTester-A = 56
LockTester-D = 57
LockTester-F = 58
LockTester-E = 59
LockTester-G = 60
LockTester-C = 61
LockTester-B = 62
LockTester-D = 63
LockTester-F = 64
LockTester-G = 65
LockTester-E = 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    = 421047
Time Spent Sleeping     = 0
Total Elapsed Time      = 421047
pjoshi@ada:~/cs510/p2$ █
```

Step 6: Producer- Consumer

Beginning execution...

===== KPL PROGRAM STARTING =====

Example Thread-based Programs...

Initializing Thread Scheduler...

Here is the ready list:

Thread "idle-thread" status=READY (addr of Thread object: 0x000160A8)

| | | | | | |
|----|------------|---|---|--|---|
| A | Producer-A | A | | | |
| | Producer-B | B | | | |
| AB | Consumer-1 | | | | A |
| B | Producer-C | | C | | |
| BC | Consumer-2 | | | | B |
| C | Consumer-3 | | | | C |
| | Producer-D | | D | | |
| D | Consumer-1 | | | | D |
| | Producer-E | | E | | |
| E | Producer-A | A | | | |
| EA | Consumer-3 | | | | E |
| A | Producer-C | | C | | |
| AC | Consumer-1 | | | | A |
| C | Consumer-2 | | | | C |
| | Producer-B | | B | | |
| B | Producer-D | | D | | |
| BD | Consumer-3 | | | | B |
| D | Producer-E | | E | | |
| DE | Consumer-1 | | | | D |
| E | Consumer-2 | | | | E |
| | Producer-A | A | | | |
| A | Consumer-3 | | | | A |
| | Producer-C | | C | | |
| C | Producer-B | | B | | |
| CB | Consumer-1 | | | | C |
| B | Producer-D | | D | | |
| BD | Consumer-2 | | | | B |
| D | Consumer-3 | | | | D |
| | Producer-E | | E | | |
| E | Consumer-1 | | | | E |
| | Producer-A | A | | | |
| A | Producer-C | | C | | |
| AC | Consumer-3 | | | | A |
| C | Producer-D | | D | | |
| CD | Consumer-1 | | | | C |
| D | Consumer-2 | | | | D |
| | Producer-B | | B | | |
| B | Producer-E | | E | | |
| BE | Consumer-3 | | | | B |
| E | Producer-A | A | | | |
| EA | Consumer-1 | | | | E |
| A | Consumer-2 | | | | A |
| | Producer-C | | C | | |
| C | Consumer-3 | | | | C |
| | Producer-D | | D | | |
| D | Consumer-1 | | | | D |
| | Producer-B | | B | | |
| B | Consumer-2 | | | | B |
| | Producer-E | | E | | |
| E | Consumer-3 | | | | E |

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

[illegible]

```

**** 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   = 429534

```