```
1 "C:\Program Files\Java\jdk1.8.0 201\bin\java.exe" "-
   javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2018.3.
   1\lib\idea_rt.jar=52552:C:\Program Files\JetBrains\
   IntelliJ IDEA 2018.3.1\bin" -Dfile.encoding=UTF-8 -
   classpath "C:\Program Files\Java\jdk1.8.0_201\jre\lib\
   charsets.jar;C:\Program Files\Java\jdk1.8.0 201\jre\lib\
   deploy.jar;C:\Program Files\Java\jdk1.8.0 201\jre\lib\ext\
   access-bridge-64.jar;C:\Program Files\Java\jdk1.8.0_201\
   jre\lib\ext\cldrdata.jar;C:\Program Files\Java\jdk1.8.
   0 201\jre\lib\ext\dnsns.jar;C:\Program Files\Java\jdk1.8.
   0_201\jre\lib\ext\jaccess.jar;C:\Program Files\Java\jdk1.8
   .0 201\jre\lib\ext\jfxrt.jar;C:\Program Files\Java\jdk1.8.
   0_201\jre\lib\ext\localedata.jar;C:\Program Files\Java\
   jdk1.8.0_201\jre\lib\ext\nashorn.jar;C:\Program Files\Java
   \jdk1.8.0 201\jre\lib\ext\sunec.jar;C:\Program Files\Java\
   jdk1.8.0 201\jre\lib\ext\sunjce provider.jar;C:\Program
   Files\Java\jdk1.8.0_201\jre\lib\ext\sunmscapi.jar;C:\
   Program Files\Java\jdk1.8.0_201\jre\lib\ext\sunpkcs11.jar;
   C:\Program Files\Java\jdk1.8.0_201\jre\lib\ext\zipfs.jar;C
   :\Program Files\Java\jdk1.8.0 201\jre\lib\javaws.jar;C:\
   Program Files\Java\jdk1.8.0_201\jre\lib\jce.jar;C:\Program
    Files\Java\jdk1.8.0_201\jre\lib\jfr.jar;C:\Program Files\
   Java\jdk1.8.0_201\jre\lib\jfxswt.jar;C:\Program Files\Java
   \jdk1.8.0_201\jre\lib\jsse.jar;C:\Program Files\Java\jdk1.
   8.0 201\jre\lib\management-agent.jar;C:\Program Files\Java
   \jdk1.8.0_201\jre\lib\plugin.jar;C:\Program Files\Java\
   jdk1.8.0_201\jre\lib\resources.jar;C:\Program Files\Java\
   jdk1.8.0 201\jre\lib\rt.jar;C:\Users\osaht\workspace\
   School-Projects\Java Projects\Mutual Exclusion task 5\
   target\classes" threads.BlockManager
2 Main thread starts executing.
 3 Initial value of top = 3.
4 Initial value of stack top = d.
5 Main thread will now fork several threads.
 6 main(): Three AcquireBlock threads have been created.
7 main(): Three ReleaseBlock threads have been created.
8 main(): CharStackProber threads have been created: 4
9 AcquireBlock thread [TID=1] starts executing.
10 main(): All the threads are ready.
11 value of sephamore = −9
12 threads.BlockManager$AcquireBlock thread [TID=1] starts
   PHASE I.
13 Some stats info in the PHASE I:
       iTID = 1, siNextTID = 11, siTurn = 1.
14
       Their "checksum": 1111
15
16 threads.BlockManager$AcquireBlock thread [TID=1] finishes
   PHASE I.
17 AcquireBlock thread [TID=1] requests Ms block.
18 AcquireBlock thread [TID=1] has obtained Ms block d from
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18 position 3.
19 Acq[TID=1]: Current value of top = 2.
20 Acq[TID=1]: Current value of stack top = c.
21 threads.BlockManager$CharStackProber thread [TID=7] starts
    PHASE I.
22 Some stats info in the PHASE I:
23
       iTID = 7, siNextTID = 11, siTurn = 1.
24
       Their "checksum": 1171
25 threads.BlockManager$CharStackProber thread [TID=7]
   finishes PHASE I.
26 Stack Prober [TID=7]: Stack state: [a][b](c)[*][*][*].
27 Stack Prober [TID=7]: Stack state: [a][b](c)[*][*][*].
28 Stack Prober [TID=7]: Stack state: [a][b](c)[*][*][*].
29 Stack Prober [TID=7]: Stack state: [a][b](c)[*][*][*].
30 Stack Prober [TID=7]: Stack state: [a][b](c)[*][*][*].
31 ReleaseBlock thread [TID=4] starts executing.
32 threads.BlockManager$ReleaseBlock thread [TID=4] starts
   PHASE I.
33 Some stats info in the PHASE I:
       iTID = 4, siNextTID = 11, siTurn = 1.
       Their "checksum": 1141
35
36 threads.BlockManager$ReleaseBlock thread [TID=4] finishes
   PHASE I.
37 ReleaseBlock thread [TID=4] returns Ms block d to position
38 d has been successfully added to the stack
39 Rel[TID=4]: Current value of top = 3.
40 Rel[TID=4]: Current value of stack top = d.
41 threads.BlockManager$CharStackProber thread [TID=8] starts
    PHASE I.
42 Some stats info in the PHASE I:
43
       iTID = 8, siNextTID = 11, siTurn = 1.
       Their "checksum": 1181
44
45 threads.BlockManager$CharStackProber thread [TID=8]
   finishes PHASE I.
46 Stack Prober [TID=8]: Stack state: [a][b][c](d)[*][*].
47 Stack Prober [TID=8]: Stack state: [a][b][c](d)[*][*].
48 Stack Prober [TID=8]: Stack state: [a][b][c](d)[*][*].
49 Stack Prober [TID=8]: Stack state: [a][b][c](d)[*][*].
50 Stack Prober [TID=8]: Stack state: [a][b][c](d)[*][*].
51 AcquireBlock thread [TID=2] starts executing.
52 threads.BlockManager$AcquireBlock thread [TID=2] starts
  PHASE I.
53 Some stats info in the PHASE I:
54
       iTID = 2, siNextTID = 11, siTurn = 1.
       Their "checksum": 1121
55
56 threads.BlockManager$AcquireBlock thread [TID=2] finishes
   PHASE I.
57 AcquireBlock thread [TID=2] requests Ms block.
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58 AcquireBlock thread [TID=2] has obtained Ms block d from
   position 3.
59 Acq[TID=2]: Current value of top = 2.
60 Acq[TID=2]: Current value of stack top = c.
61 threads.BlockManager$CharStackProber thread [TID=9]
   starts PHASE I.
62 Some stats info in the PHASE I:
       iTID = 9, siNextTID = 11, siTurn = 1.
63
       Their "checksum": 1191
64
65 threads.BlockManager$CharStackProber thread [TID=9]
  finishes PHASE I.
66 Stack Prober [TID=9]: Stack state: [a][b](c)[*][*][*].
67 Stack Prober [TID=9]: Stack state: [a][b](c)[*][*][*].
68 Stack Prober [TID=9]: Stack state: [a][b](c)[*][*][*].
69 Stack Prober [TID=9]: Stack state: [a][b](c)[*][*][*].
70 Stack Prober [TID=9]: Stack state: [a][b](c)[*][*][*].
71 ReleaseBlock thread [TID=5] starts executing.
72 threads.BlockManager$ReleaseBlock thread [TID=5] starts
   PHASE I.
73 Some stats info in the PHASE I:
       iTID = 5, siNextTID = 11, siTurn = 1.
74
       Their "checksum": 1151
75
76 threads.BlockManager$ReleaseBlock thread [TID=5] finishes
    PHASE I.
77 ReleaseBlock thread [TID=5] returns Ms block d to
   position 3.
78 d has been successfully added to the stack
79 Rel[TID=5]: Current value of top = 3.
80 Rel[TID=5]: Current value of stack top = d.
81 AcquireBlock thread [TID=3] starts executing.
82 threads.BlockManager$AcquireBlock thread [TID=3] starts
   PHASE I.
83 Some stats info in the PHASE I:
       iTID = 3, siNextTID = 11, siTurn = 1.
       Their "checksum": 1131
85
86 threads.BlockManager$AcquireBlock thread [TID=3] finishes
    PHASE I.
87 AcquireBlock thread [TID=3] requests Ms block.
88 AcquireBlock thread [TID=3] has obtained Ms block d from
   position 3.
89 Acq[TID=3]: Current value of top = 2.
90 Acq[TID=3]: Current value of stack top = c.
91 threads.BlockManager$CharStackProber thread [TID=10]
   starts PHASE I.
92 Some stats info in the PHASE I:
       iTID = 10, siNextTID = 11, siTurn = 1.
93
       Their "checksum": 1201
94
95 threads.BlockManager$CharStackProber thread [TID=10]
   finishes PHASE I.
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96 Stack Prober [TID=10]: Stack state: [a][b](c)[*][*][*].
97 Stack Prober [TID=10]: Stack state: [a][b](c)[*][*][*].
98 Stack Prober [TID=10]: Stack state: [a][b](c)[*][*][*].
99 Stack Prober [TID=10]: Stack state: [a][b](c)[*][*][*].
100 Stack Prober [TID=10]: Stack state: [a][b](c)[*][*][*].
101 ReleaseBlock thread [TID=6] starts executing.
102 threads.BlockManager$ReleaseBlock thread [TID=6] starts
    PHASE I.
103 Some stats info in the PHASE I:
        iTID = 6, siNextTID = 11, siTurn = 1.
104
        Their "checksum": 1161
106 threads.BlockManager$ReleaseBlock thread [TID=6] finishes
     PHASE I.
107 ReleaseBlock thread [TID=6] returns Ms block d to
    position 3.
108 d has been successfully added to the stack
109 Rel[TID=6]: Current value of top = 3.
110 Rel[TID=6]: Current value of stack top = d.
111
112 ALL OF PHASE 1 HAVE BEEN COMPLETED!!
113
114 threads.BlockManager$AcquireBlock thread [TID=1] starts
    PHASE II.
115 Some stats info in the PHASE II:
116
        iTID = 1, siNextTID = 11, siTurn = 2.
       Their "checksum": 1112
117
118 threads.BlockManager$AcquireBlock thread [TID=1] finishes
     PHASE II.
119 AcquireBlock thread [TID=1] terminates.
120 threads.BlockManager$AcquireBlock thread [TID=2] starts
    PHASE II.
121 Some stats info in the PHASE II:
        iTID = 2, siNextTID = 11, siTurn = 3.
122
        Their "checksum": 1123
123
124 threads.BlockManager$AcquireBlock thread [TID=2] finishes
     PHASE II.
125 AcquireBlock thread [TID=2] terminates.
126 threads.BlockManager$AcquireBlock thread [TID=3] starts
    PHASE II.
127 Some stats info in the PHASE II:
        iTID = 3, siNextTID = 11, siTurn = 4.
128
129
        Their "checksum": 1134
130 threads.BlockManager$AcquireBlock thread [TID=3] finishes
     PHASE II.
131 AcquireBlock thread [TID=3] terminates.
132 threads.BlockManager$ReleaseBlock thread [TID=4] starts
    PHASE II.
133 Some stats info in the PHASE II:
134
        iTID = 4, siNextTID = 11, siTurn = 5.
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Their "checksum": 1145
136 threads.BlockManager$ReleaseBlock thread [TID=4] finishes
     PHASE II.
137 ReleaseBlock thread [TID=4] terminates.
138 threads.BlockManager$ReleaseBlock thread [TID=5] starts
    PHASE II.
139 Some stats info in the PHASE II:
        iTID = 5, siNextTID = 11, siTurn = 6.
140
        Their "checksum": 1156
141
142 threads.BlockManager$ReleaseBlock thread [TID=5] finishes
     PHASE II.
143 ReleaseBlock thread [TID=5] terminates.
144 threads.BlockManager$ReleaseBlock thread [TID=6] starts
    PHASE II.
145 Some stats info in the PHASE II:
        iTID = 6, siNextTID = 11, siTurn = 7.
146
        Their "checksum": 1167
147
148 threads.BlockManager$ReleaseBlock thread [TID=6] finishes
     PHASE II.
149 ReleaseBlock thread [TID=6] terminates.
150 threads.BlockManager$CharStackProber thread [TID=7]
    starts PHASE II.
151 Some stats info in the PHASE II:
        iTID = 7, siNextTID = 11, siTurn = 8.
152
       Their "checksum": 1178
154 threads.BlockManager$CharStackProber thread [TID=7]
    finishes PHASE II.
155 threads.BlockManager$CharStackProber thread [TID=8]
    starts PHASE II.
156 Some stats info in the PHASE II:
        iTID = 8, siNextTID = 11, siTurn = 9.
157
        Their "checksum": 1189
158
159 threads.BlockManager$CharStackProber thread [TID=8]
    finishes PHASE II.
160 threads.BlockManager$CharStackProber thread [TID=9]
    starts PHASE II.
161 Some stats info in the PHASE II:
        iTID = 9, siNextTID = 11, siTurn = 10.
162
        Their "checksum": 1200
163
164 threads.BlockManager$CharStackProber thread [TID=9]
    finishes PHASE II.
165 threads.BlockManager$CharStackProber thread [TID=10]
    starts PHASE II.
166 Some stats info in the PHASE II:
        iTID = 10, siNextTID = 11, siTurn = 11.
167
        Their "checksum": 1211
168
169 threads.BlockManager$CharStackProber thread [TID=10]
    finishes PHASE II.
170 System terminates normally.
```

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171 Final value of top = 3.
172 Final value of stack top = d.
173 Final value of stack top-1 = c.
174 Stack access count = 138
175
176 Process finished with exit code \emptyset
177
```