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OS for Engineers
Lab – 2
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```
 1    P1 Ready P3 Running P5 Ready P7 Ready P8 Ready
 2    At time 5:  P3 requests the disk; P7 is dispatched.
 3    P1 Ready P3 Blocked* P5 Ready P7 Running* P8 Ready
 4    Disk queue: P3
 5    Keyboard queue:
 6    Printer queue:
 7
 8    At time 15: Time slice for P7 expires; P8 is dispatched.
 9    P1 Ready P3 Blocked P5 Ready P7 Ready* P8 Running*
10    Disk queue: P3
11    Keyboard queue:
12    Printer queue:
13
14    At time 18: P8 requests the keyboard; P5 is dispatched.
15    P1 Ready P3 Blocked P5 Running* P7 Ready P8 Blocked*
16    Disk queue: P3
17    Keyboard queue: P8
18    Printer queue:
19
20    At time 20: P5 requests the disk; P7 is dispatched.
21    P1 Ready P3 Blocked P5 Blocked* P7 Running* P8 Blocked
22    Disk queue: P3 P5
23    Keyboard queue: P8
24    Printer queue:
25
26    At time 24: P7 requests the printer; P1 is dispatched.
27    P1 Running* P3 Blocked P5 Blocked P7 Blocked* P8 Blocked
28    Disk queue: P3 P5
29    Keyboard queue: P8
30    Printer queue: P7
31
32    At time 28: P7 is swapped out.
33    P1 Running P3 Blocked P5 Blocked P7 Blocked/Suspend P8 Blocked
34    Disk queue: P3 P5
35    Keyboard queue: P8
36    Printer queue: P7
37
38    At time 33: An interrupt occurred for P5.
39    P1 Running P3 Blocked P5 Ready* P7 Blocked/Suspend P8 Blocked
40    Disk queue: P3
41    Keyboard queue: P8
42    Printer queue: P7
43
44    At time 36: An interrupt occurred for P3.
45    P1 Running P3 Ready* P5 Ready P7 Blocked/Suspend P8 Blocked
46    Disk queue:
47    Keyboard queue: P8
48    Printer queue: P7
49
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50    At time 38: P1 is terminated.
51    P1 Release* P3 Ready P5 Ready P7 Blocked/Suspend P8 Blocked
52    Disk queue:
53    Keyboard queue: P8
54    Printer queue: P7
55
56    At time 40: An interrupt occurred for P7.
57    P1 Release P3 Ready P5 Ready P7 Ready/Suspend* P8 Blocked
58    Disk queue:
59    Keyboard queue: P8
60    Printer queue:
61
62    At time 44: P7 is swapped in.
63    P1 Release P3 Ready P5 Ready P7 Ready* P8 Blocked
64    Disk queue:
65    Keyboard queue: P8
66    Printer queue:
67
68    At time 48: An interrupt occurred for P8.
69    P1 Release P3 Ready P5 Ready P7 Ready P8 Ready*
70    Disk queue:
71    Keyboard queue:
72    Printer queue:
73
74
```

Figure 1 and 2: Fully parsed output file based off of inp1.txt.

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 1   P1 Ready P2 Ready P5 Running P6 Blocked P7 New P9 Ready P11 Blocked P12 Ready P15 Blocked P20 Ready
 2   At time 5:  Time slice for P5 expires; P9 is dispatched.
 3   P1 Ready P2 Ready P5 Ready* P6 Blocked P7 New P9 Running* P11 Blocked P12 Ready P15 Blocked P20 Ready
 4   Disk queue:
 5   Keyboard queue:
 6   Printer queue:
 7
 8   At time 15: P9 requests the disk; P1 is dispatched; P15 is swapped out; P20 is swapped out.
 9   P1 Running* P2 Ready P5 Ready P6 Blocked P7 New P9 Blocked* P11 Blocked P12 Ready P15 Blocked/Suspend P20 Ready/Suspend*
10   Disk queue: P9
11   Keyboard queue:
12   Printer queue:
13
14   At time 18: An interrupt occurred for P6; P11 is swapped out.
15   P1 Running P2 Ready P5 Ready P6 Ready* P7 New P9 Blocked P11 Blocked/Suspend P12 Ready P15 Blocked/Suspend P20 Ready/Suspend
16   Disk queue: P9
17   Keyboard queue:
18   Printer queue:
19
20   At time 20: An interrupt occurred for P11; P15 is swapped in.
21   P1 Running P2 Ready P5 Ready P6 Ready P7 New P9 Blocked P11 Ready/Suspend* P12 Ready P15 Blocked* P20 Ready/Suspend
22   Disk queue: P9
23   Keyboard queue:
24   Printer queue:
25
26   At time 24: P1 requests the printer; P6 is dispatched.
27   P1 Blocked* P2 Ready P5 Ready P6 Running* P7 New P9 Blocked P11 Ready/Suspend P12 Ready P15 Blocked P20 Ready/Suspend
28   Disk queue: P9
29   Keyboard queue:
30   Printer queue: P1
31
32   At time 28: Time slice for P6 expires; P2 is dispatched.
33   P1 Blocked P2 Running* P5 Ready P6 Ready* P7 New P9 Blocked P11 Ready/Suspend P12 Ready P15 Blocked P20 Ready/Suspend
34   Disk queue: P9
35   Keyboard queue:
36   Printer queue: P1
37
38   At time 33: P2 is terminated; An interrupt occurred for P9.
39   P1 Blocked P2 Release* P5 Ready P6 Ready P7 New P9 Ready* P11 Ready/Suspend P12 Ready P15 Blocked P20 Ready/Suspend
40   Disk queue:
41   Keyboard queue:
42   Printer queue: P1
43
44   At time 36: P11 is swapped in; P5 is terminated; P6 is dispatched.
45   P1 Blocked P2 Release P5 Release* P6 Running* P7 New P9 Ready P11 Ready* P12 Ready P15 Blocked P20 Ready/Suspend
46   Disk queue:
47   Keyboard queue:
48   Printer queue: P1
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Figure 3: Fully parsed output file based off inp2.txt.