|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Process | Max | Allocated | Need | Can Run |
| P1 | 4 | 1 | 3 | False |
| P2 | 6 | 4 | 2 | True |
| P3 | 8 | 5 | 3 | True |
| P4 | 2 | 0 | 2 | True |

Available

2, 6, 11, 12

Safe State

P2, P3, P4, P1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Process | Max | Allocated | Need | Can Run |
| P1 | 4 | 1 | 3 | False |
| P2 | 6 | 4 | 2 | False |
| P3 | 8 | 6 | 2 | False |
| P4 | 2 | 0 | 2 | false |

Available

1,

Not Safe – Deadlock

P1, P2, P3, P4

|  |  |  |  |
| --- | --- | --- | --- |
| Process | Max | Allocated | Need |
| P1 | 10 | 8 | 2 |
| P2 | 5 | 2 | 3 |
| P3 | 3 | 1 | 2 |

Available

12,20,22,21

P1, P2, P3