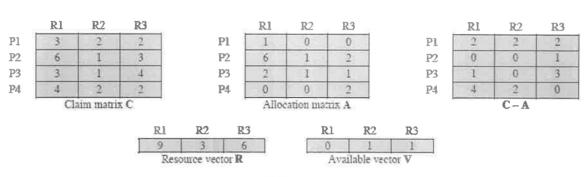
Q3 B Rl **R**2 R3 R2 **R**3 RI Pl 3 Pl 0 0 P2 6 3 **P**2 P3 3 4 P3 -1 P4 4 0 Claim matrix C Allocation matrix A

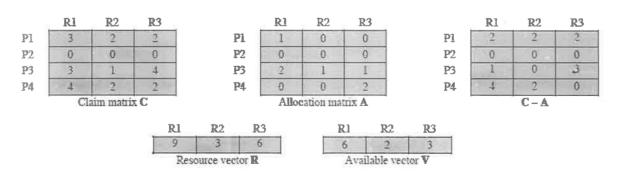
Consider above snap shot of the system there are four processes (P1-P4) and three resources (R1-R3)

1. Calculate available vector 2. Calculate need matrix 3. Is system in safe state?

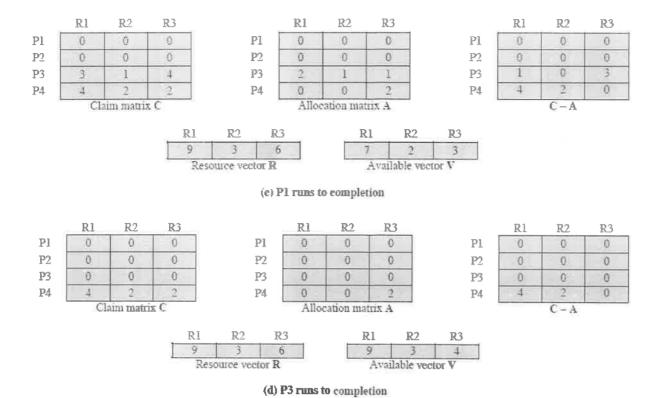
Answer



(a) Initial state



(b) P2 runs to completion



P4 runs to completion as all processes are finishing their execution system is in safe state

Q4 B Explain algorithm to avoid deadlock in dinning philosopher's problem.

Figure 6.13 A Second Solution to the Dining Philosophers Problem