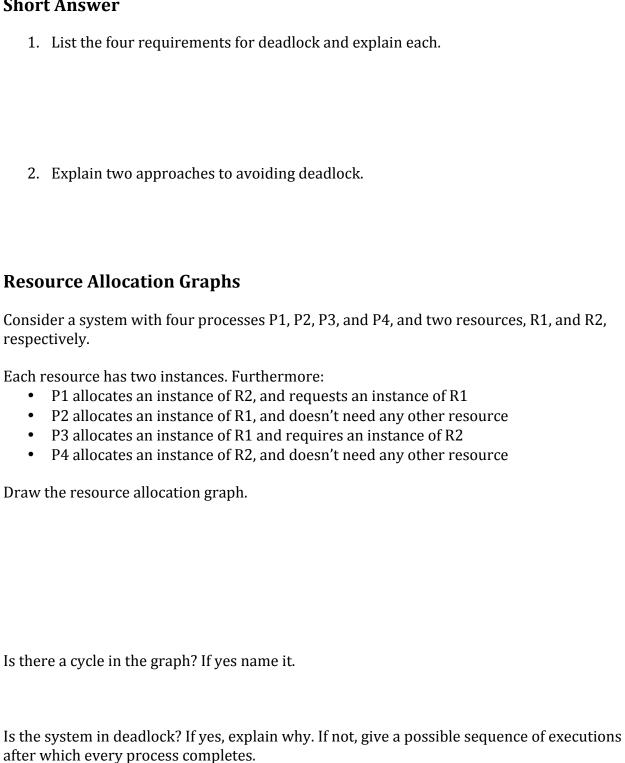
CS 162 Section 3

Short Answer



Resource Allocation Tables

Consider the following snapshot of a system with five processes (P1, P2, P3, P4, P5) and four resources (R1, R2, R3, R4). There are no current outstanding queued unsatisfied requests.

Currently Available Resources

R1	R2	R3	R4
2	1	2	0

Current Allocation					Max Need			Still Needs				
Process	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
P1	0	0	1	2	0	0	3	2	0	0	2	0
P2	2	0	0	0	2	7	5	0	0	7	5	0
P3	0	0	3	4	6	6	5	6	6	6	2	2
P4	2	3	5	4	4	3	5	6	2	0	0	2
P5	0	3	3	2	0	6	5	2	0	3	2	0

Is this system currently deadlocked, or can any process become deadlocked? Why or why not? If not deadlocked, give an execution order.

If a request from a process P1 arrives for (0, 4, 2, 0), can the request be immediately granted? Why or why not? If yes, show an execution order.

If a request from a process P2 arrives for (0, 1, 2, 0), should the request be immediately granted? Why or why not? If yes, show an execution order.