Activity 2

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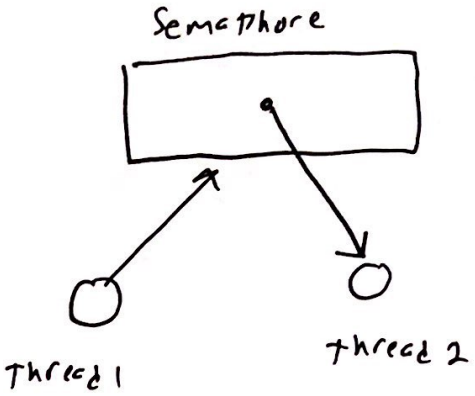
Q1) Resource Allocation Graph



It is not possible for the system to become deadlocked this is because the resource allocation graph above shows that there are no complete cycles. The single semaphore instance will not cause both thread one and two to wait for count at the same time.

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Activity 3

Q2) The content of matrix Need is:

a)

Need	A	B	C	D
P_0	0	0	0	0
P_1	0	7	5	0
P_2	1	0	0	2
P_3	0	0	2	0
P_4	0	6	4	2

b) The system is in a safe state, this is because available is equal to (1,5,2,0) So either Process 3 or Process 0 can run. Once Process 3 has been run its resource can then be released thus allowing all other Prousses to run.

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