

# Resources

storage (locations)

cores

I/O : mouse, keyboard  
printer

# Deadlocks

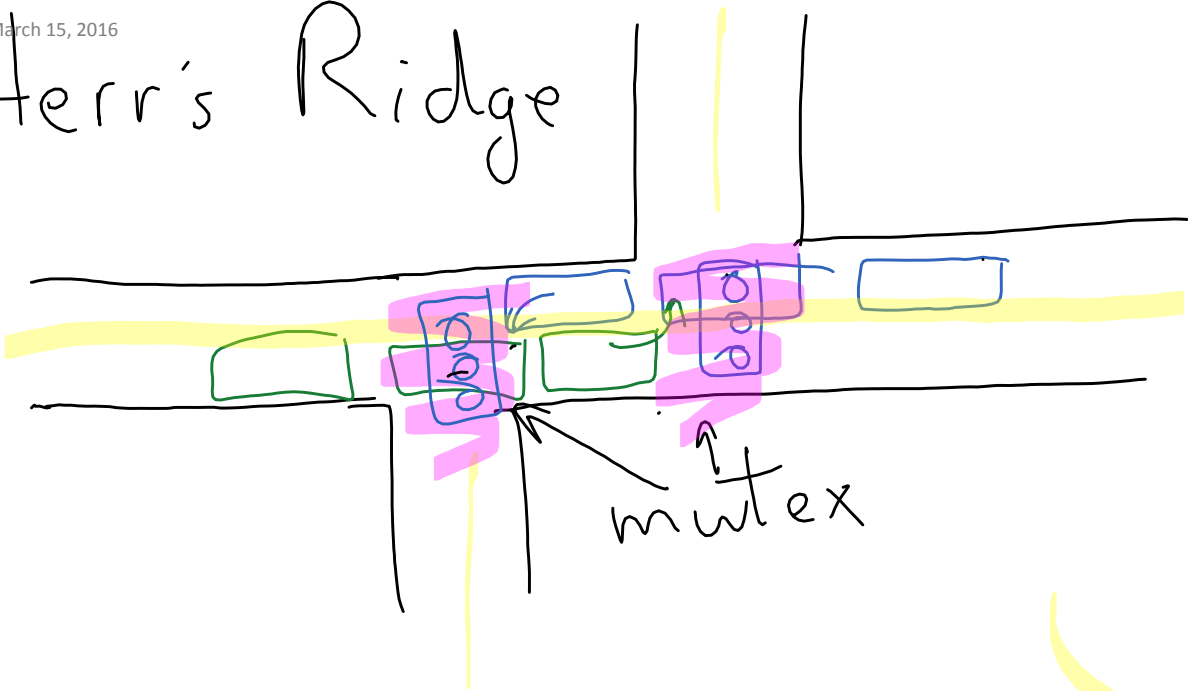
## process

- request
- use
- release

- ① Mutual exclusion
- ② Hold and wait
- ③ No preemption
- ④ Circular wait

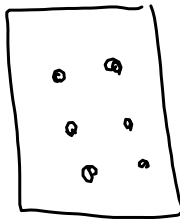
Tuesday, March 15, 2016  
1:35 PM

# Herr's Ridge

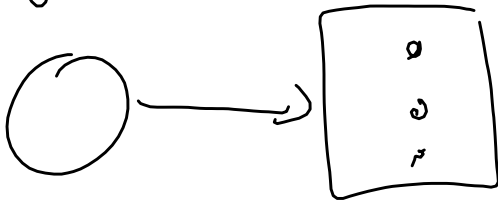


# Resource Allocation Graph

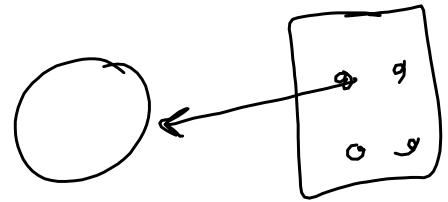
proc: ○

res: 

request

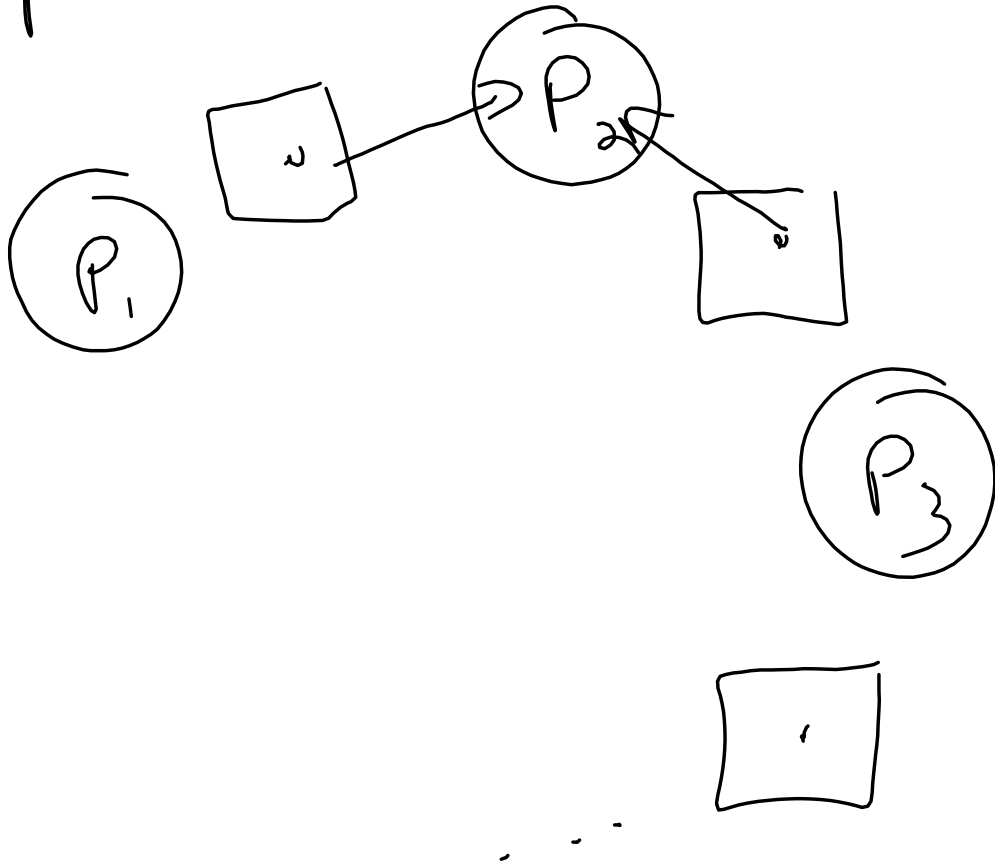


assignment



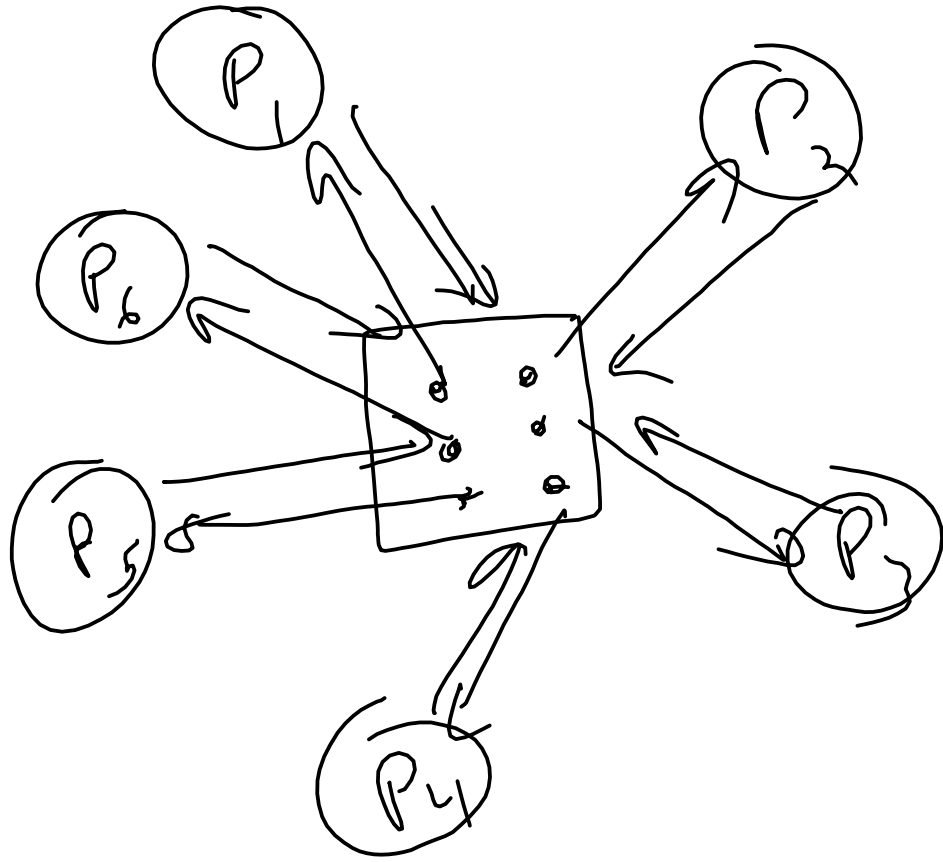
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# Philosophers



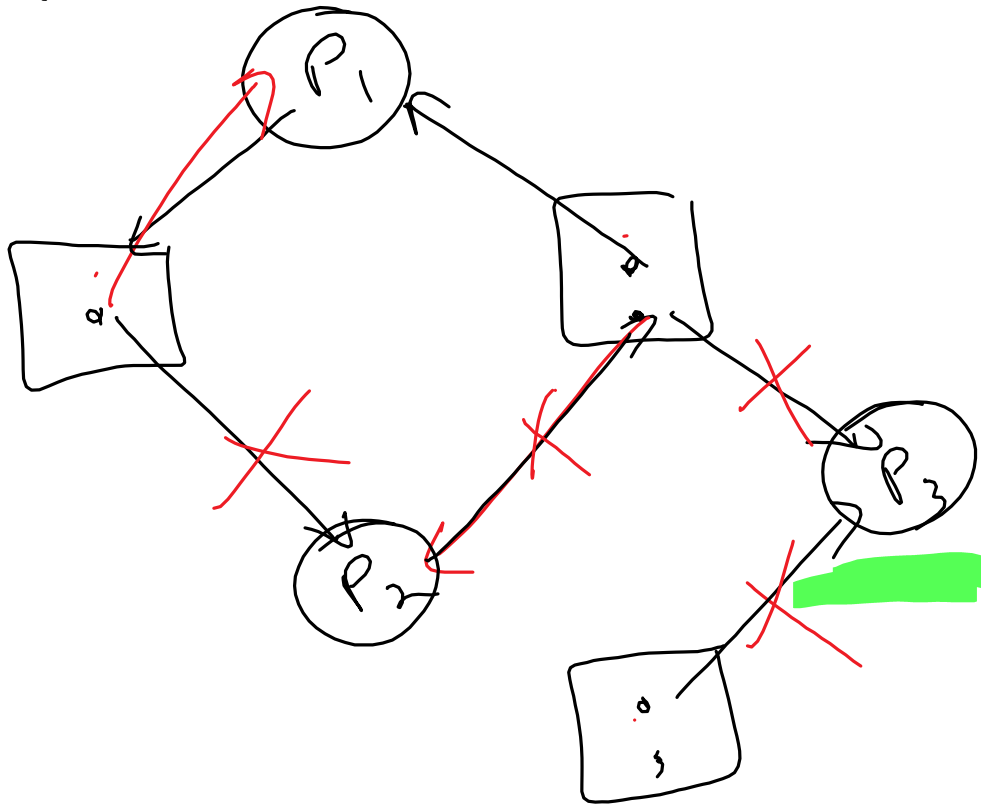
Tuesday, March 15, 2016  
1:57 PM

Phil. 2



Tuesday, March 15, 2016  
1:59 PM

Phil 3.



Tuesday, March 15, 2016  
2:06 PM

Ostrich Algorithm

ignore the problem

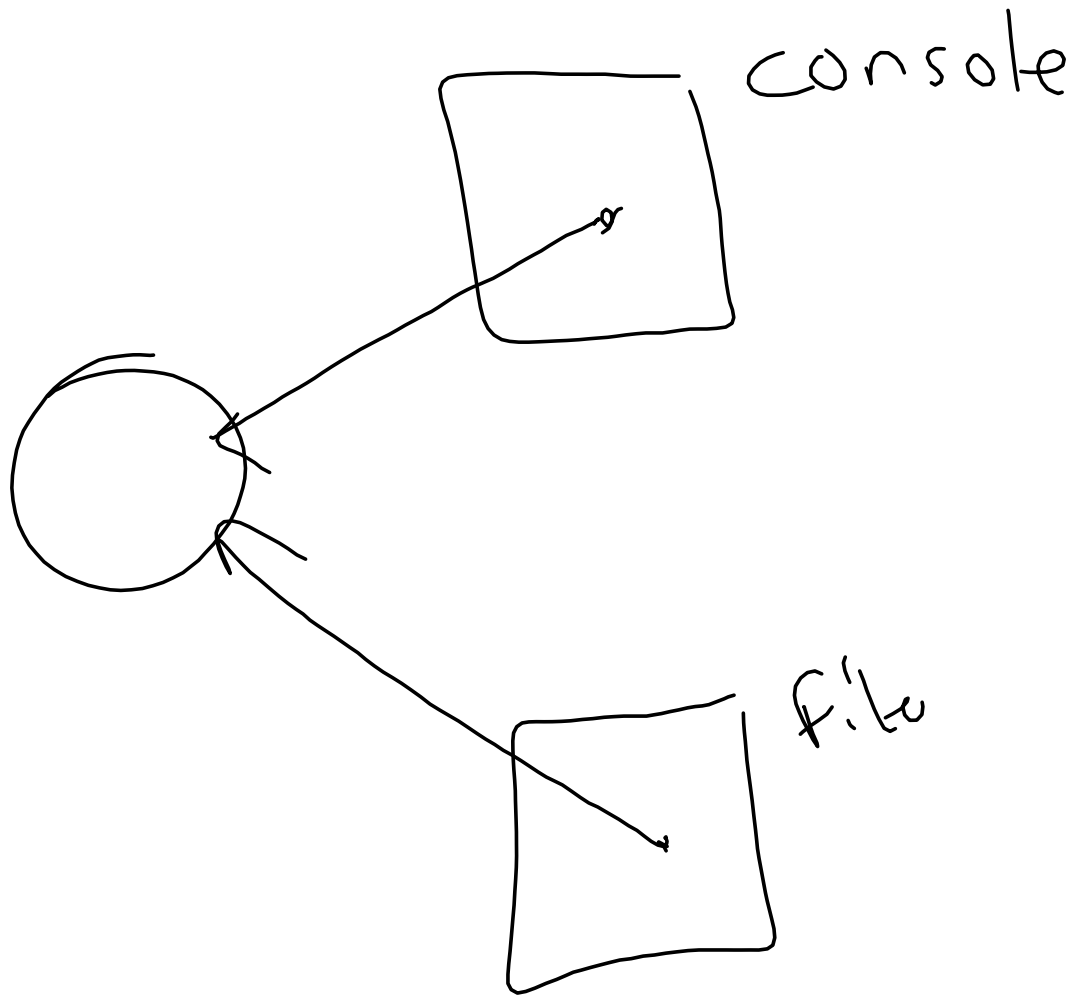


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# Prevention

prevent one of the four  
conditions

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2:16 PM



# Circ. Wait

