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Operating Systems

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Chapter 5 Exercises

1. Deadlock is a problem occurring when the resources needed by some jobs to finish execution are held by other jobs which in return are waiting for other resources to become available.
2. Have an alternative route instead of using the stairs. Maybe somehow build an elevator to allow people to get where they need to go. Put a slide even to make it more pleasurable for the people inconvenience.
3. Deadlock can be someone that was unable to finish the job. Which would lead to that person getting fired upon approval from the project manager. With the person getting fired it will allow open possibilities for new people to step up into a new role and job.
4. Yes because R2 has two going to it P1 and P3
5. No there is not ant deadlock here
6. 8 devices is the maximum number of jobs that can be produced within this question. The idle depends on the system that the company or group of people are working on. This might cause some minimum and maximum. The minimum for this question is 5 and maximum is 13 which is the dedicated devices of the same type of systems.
7. 6 devices is the maximum number of jobs that can be produced within this question. The idle depends on the system that the company or group of people are working on. This might cause some minimum and maximum. The minimum for this question is 5 and maximum is 14 which is the dedicated devices of the same type of systems.
8. 6 devices is the maximum number of jobs that can be produced within this question. The idle depends on the system that the company or group of people are working on. This might cause some minimum and maximum. The minimum for this question is 5 and maximum is 14 which is the dedicated devices of the same type of systems.
9. 9 devices is the maximum number of jobs that can be produced within this question. The idle depends on the system that the company or group of people are working on. This might cause some minimum and maximum. The minimum for this question is 5 and maximum is 16 which is the dedicated devices of the same type of systems.
10. 14, 29, job 4
11. 11, 19, job 3
12. 13, 23, job 3
13. 30, 40, job 1