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8-2 Short paper

Before finding a solution for deadlock I believe we need to define what deadlock is. Deadlock is when two or more processes get stuck waiting on other process. This locks up the CPU and therefore the application. One simple solution to fixing deadlock is to give more resources to the computer. With more resources the locks won’t stop the computer due to limitations on resources. Some best practices for preventing deadlock are to avoid mutual exclusion. Another popular method is to not program wait and hold. This is where in programming you don’t force one application to wait on another this is rare occurrence in programming to begin with, but it can’t be changed if it is causing a deadlock. We can also allow preemption which is allowing the CPU to reserve a small amount of memory to use in the case of a deadlock. Finally, we can eliminate cycles. I would also recommend isolating servers to only have a few numbers of processes for the application. Most modern applications only run-in pods in some sort of container orchestration tool. This also allows us to allocate memory and resources exactly where we need it to avoid deadlock.

Reference:

*1. what is deadlock?* Deadlock. (n.d.). Retrieved February 21, 2022, from https://www.cs.yale.edu/homes/aspnes/pinewiki/Deadlock.html