Week 1 lesson 3 task 3 solution

1. **What breaks first?**

When traffic increase 10x:

- All app servers talk to the same database
- DB gets overloaded (CPU, connections, disk)

This is one of the most common real-world failures.

2. **Why can't you just add more app servers?**

"Adding more app servers won't do good unless you scale the DB"

Why?

- more app servers = more concurrent DB requests
- DB load increases faster than app capacity
- you amplify the bottleneck.

This is called bottleneck amplification.

3. **What does this tell you about scaling strategy?**

Servers must be stateless to scale horizontaly.

- you must scale every shared dependency.
- Data layer needs its own scaling strategy
- Horizontal scaling is end-to-end, not just servers