



# CS 839: Topics in Database Management Systems

## Lecture 9: Transaction Processing-3

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# Updates

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## Mon 10/9. Project meetings (No lecture)

- Meeting (optional) with the instructor to discuss the course project
- More slots are added
- Location: CS4361. [Signup sheet](#)

## Wed 10/11. No Lecture

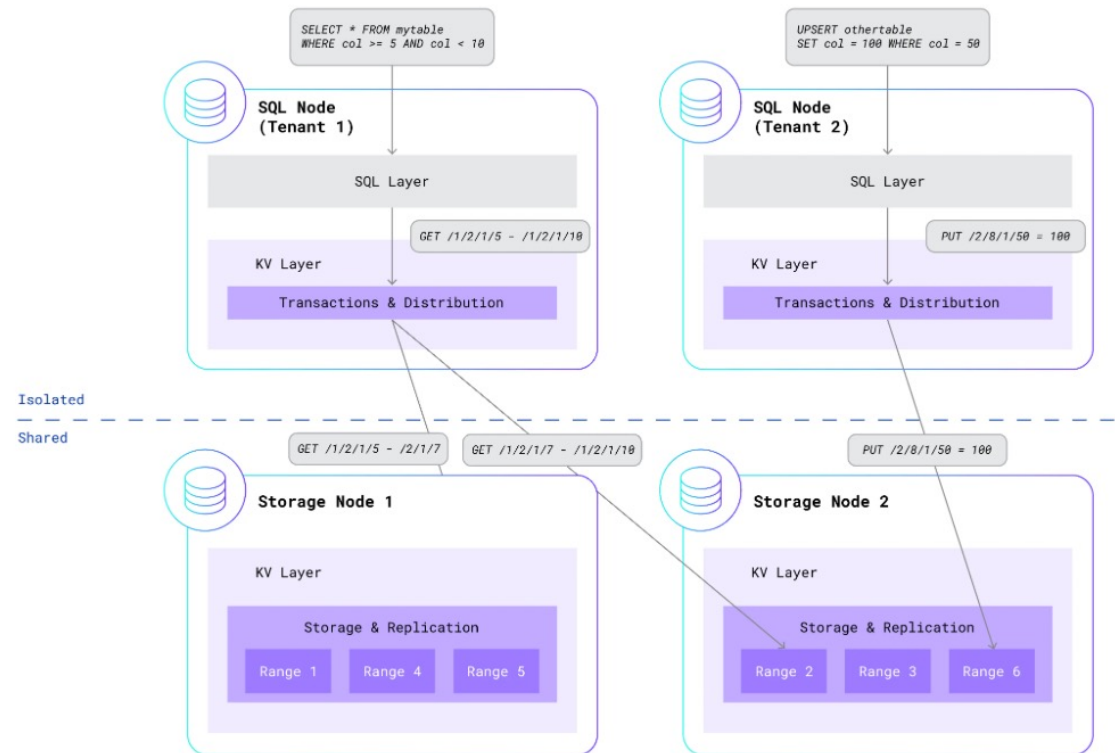
- Attend [Wisconsin DB Affiliates Workshop](#)
- **10/12 Thu (optional) @Union South Northwoods (3<sup>rd</sup> floor)**. Whole-day workshop
- **10/13 Fri 9:00-10:30 (required) @CS 1240**. Sponsor talks from Microsoft, Google, and Snowflake.
- Attend and **submit a review for the talks by Sunday 11:59pm**

# Transaction Processing-3 – Q/A

Why CRDB not using storage disaggregation?

– <https://www.cockroachlabs.com/blog/how-we-built-cockroachdb-serverless/>

No support for snapshot isolation?



# Discussion Questions

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The architecture of Cornus provides one answer to the question we discussed in last lecture—it supports multiple writers in a disaggregation architecture, by sharding data across compute nodes. Do you see any limitation of this architecture? Can you think of any optimization to mitigate such limitations?

Is the distributed commit protocol in CRDB a variant of 2PC? Or is it a different protocol based on a different set of assumptions? Are the two optimizations, i.e., write pipelining and parallel commits, applicable to 2PC as well (e.g., Cornus)?