



CS 839: Topics in Database Management Systems

Lecture 12: Serverless-1

Xiangyao Yu

10/16/2023

Logistics

Project proposal deadline extended to Oct. 20 Friday 11:59pm.

DB Affiliates Workshop

Feedback discussion

Serverless

Classic Serverless: The database engine runs within the same process, thread, and address space as the application. There is no message passing or network activity.

Neo-Serverless: The database engine runs in a separate namespace from the application, probably on a separate machine, but the database is provided as a turn-key service by the hosting provider, requires no management or administration by the application owners, and is so easy to use that the developers can think of the database as being serverless even if it really does use a server under the covers.

source: <https://www.sqlite.org/serverless.html>

Serverless-1 – Q/A

SQLite performance compared to other engines?

How are SQLite and DuckDB related to cloud-native DB?

Discussion Questions

What are the key advantages and disadvantages of classic- vs. neo-serverless? Is it possible to combine some of these advantages in a new system architecture?

Can these embedded database engines benefit from cloud computing? If so, how?