

Chat Mode

☒ RAG Mode

Upload Data

Upload your data files:

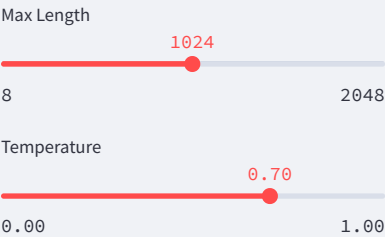
Drag and drop files here

Limit 200MB per file • TXT, PDF, DOCX

Browse files

History_of_computer_an... 327.5KB

Parameters



Actions

New Chat Clear History

Response Time (RAG): 54.09 seconds

CPU Usage (RAG): 18.60%

Memory Usage (RAG): -0.30%

Local Chatbot

A chatbot powered by LlamaIndex and Ollama

Hello, I'm your assistant, how can I help you?

10. When implementing a B+ tree index in a database system, what is the optimal fill factor (percentage of space used in each node) to maximize performance? a) 50% b) 67% c) 75% d) 100%

There isn't a single "optimal" fill factor that works best for all B+ tree implementations. The ideal fill factor depends on several factors, including:

- Data size:** Smaller data items allow for higher fill factors as there's less overhead per entry.
- Disk block size:** The fill factor should be chosen to minimize the number of disk I/O operations.
- Hardware characteristics:** Faster disk access speeds can tolerate slightly lower fill factors.

However, common practices suggest that fill factors between 60% and 70% often provide a good balance:

- Higher fill factors (closer to 100%):** Can lead to more frequent node splits, increasing the tree's height and potentially slowing down search operations.
- Lower fill factors (below 50%):** Result in excessive wasted space and can increase the number of nodes traversed during searches.

Therefore, the best answer among the choices is (b) 67%.

Let me know if you have any more questions about B+ trees or database indexing!

Ask a question:

