New Chat

Chat Mode RAG Mode (2) (2) Parameters Max Length 1024 8 2048 Temperature 0.70 0.00 1.00 Actions

Response Time (Non-RAG): 5.08 seconds

CPU Usage (Non-RAG): 7.10%

Memory Usage (Non-RAG): 0.00%

Clear History

💻 Local Chatbot 🔄

🚀 A chatbot powered by LlamaIndex and Ollama 🦙

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

7. In a Red-Black tree, which property is NOT required for the tree to be valid? a) Every node is either red or black b) The root is black c) All paths from root to NULL have the same number of red nodes d) All leaves (NULL) are considered black

A nice question about data structures!

In a Red-Black tree, the correct answer is:

c) All paths from root to NULL have the same number of red nodes

This property is not required for a Red-Black tree to be valid. The other options are actually properties that must hold true for a Red-Black tree to be valid:

- a) Every node is either red or black: This is known as the "color" property.
- b) The root is black: This ensures that the tree does not have a red root, which would violate the balance property.
- d) All leaves (NULL) are considered black: This is true by definition, since all leaf nodes in a Red-Black tree are considered black.

So, option c) is the one that is NOT required for a Red-Black tree to be valid.

Ask a question: