High Concurrent B-Trees for Insert Heavy Workloads

An in-depth comparison

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ABSTRACT

Fill this in once we're done

You should try to write the best research paper that you can using the results of your project. You have read many good papers throughout this class, so by this point you should have a good idea of what makes a good research paper! Basically, your report needs to clearly present the following:

1. the problem statement
2. The motivation, why its important
3. The literature review (the previous work in this area
4. Main idea and approach
5. Implementatino techniques
6. Experimental setup
7. Results

Keywords

B-Trees, Reader Writer Locks, B-Link, Lock-Free

1. INTRODUCTION

2. PREVIOUS WORK

B-trees have long been the primary access data structure for databases, file systems, and various other systems because of their logarthimc `insert()` and `get()`. They also have a host of other properties that make them also for large systems. A short list:

1. Maintain everything inorder. This means that merge operations can be done without sort, and SMJ, and often used join in database systems, is very efficent
2. Block access. The strucutre can store as much data is it can on a single page, and doing locking on a single page. This made B-Tree's very popular early on, when database's could not fit in memory, and had to be dumped onto disk.

2.1 Math Equations

2.1.1 Inline (In-text) Equations

2.1.2 Display Equations

2.2 Citations

books [2] listed [1]

2.3 Tables

We will need some tables

2.4 Figures

Figures

2.5 Theorem-like Constructs

Theorem Like Constructs

3. CONCLUSIONS

Conclusions

4. ACKNOWLEDGMENTS

Acknowledgments

5. REFERENCES

[1] Peter Graham Afroza Sultana, Helen Cameron. *DUNNO*, 0(0), 2010.

[2] Goetz Graefe. A survey of b-tree locking techniques. *ACM Transactions on Database Systems*, 35(2), 2010.

[*] A note about this author

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UofM:CoE:EECS 2015, Ann Arbor MI
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ACM ISBN 123-4567-24-567/08/06.
DOI: 10.475/123_4