

NOVA UNIVERSITY OF LISBON

MSC IN COMPUTER SCIENCE

How do common open-source DBMSs perform under TPROC-C WITH FIXED WORKLOADS

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DATABASES SYSTEMS

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1 Introduction

2 Overview of HammerDB

HammerDB is a free, open-source tool for benchmarking the performance of relational databases [1].

It supports popular databases like Oracle, SQL Server, PostgreSQL, MySQL, and more. HammerDB uses industry-standard workloads such as TPROC-C and TPROC-H to simulate real-world database activity.

It offers both a graphical interface and command-line options, making it suitable for developers, DBAs, and system administrators to test, compare, and tune database performance.

2.1 Overview of TPROC-C

TPROC-C is a benchmark designed to evaluate the performance of database management systems (DBMS) using a transactional workload. It simulates a typical online transaction processing (OLTP) environment, focusing on operations like inserts, updates, and deletes across multiple tables.

- 3 Problem & DBMS Summary
- 4 Benchmark Description
- 5 Methodology
- 6 Results
- 7 Discussion
- 8 Conclusions

Bibliography

[1] Wikipedia contributors. *HammerDB* — *Wikipedia, The Free Encyclopedia*. [Online; accessed 25-May-2025]. 2025. URL: https://en.wikipedia.org/w/index.php?title=HammerDB&oldid=1275860580.