

# Database Reliability Engineering

Performance Through Database Design



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# Performance

# Performance

## Oracle Autonomous Database through good Database Design

### Benchmarks

- The total transactions per second achieved (TPS)
- The average elapsed time in seconds across the 8 benchmark sessions (ELA)
- A cumulative breakdown of where the 8 sessions utilized the elapsed time

LiveLabs

<https://apexapps.oracle.com/pls/apex/f?p=133:180:109179867576065::::wid:802>

# Performance Benchmarks

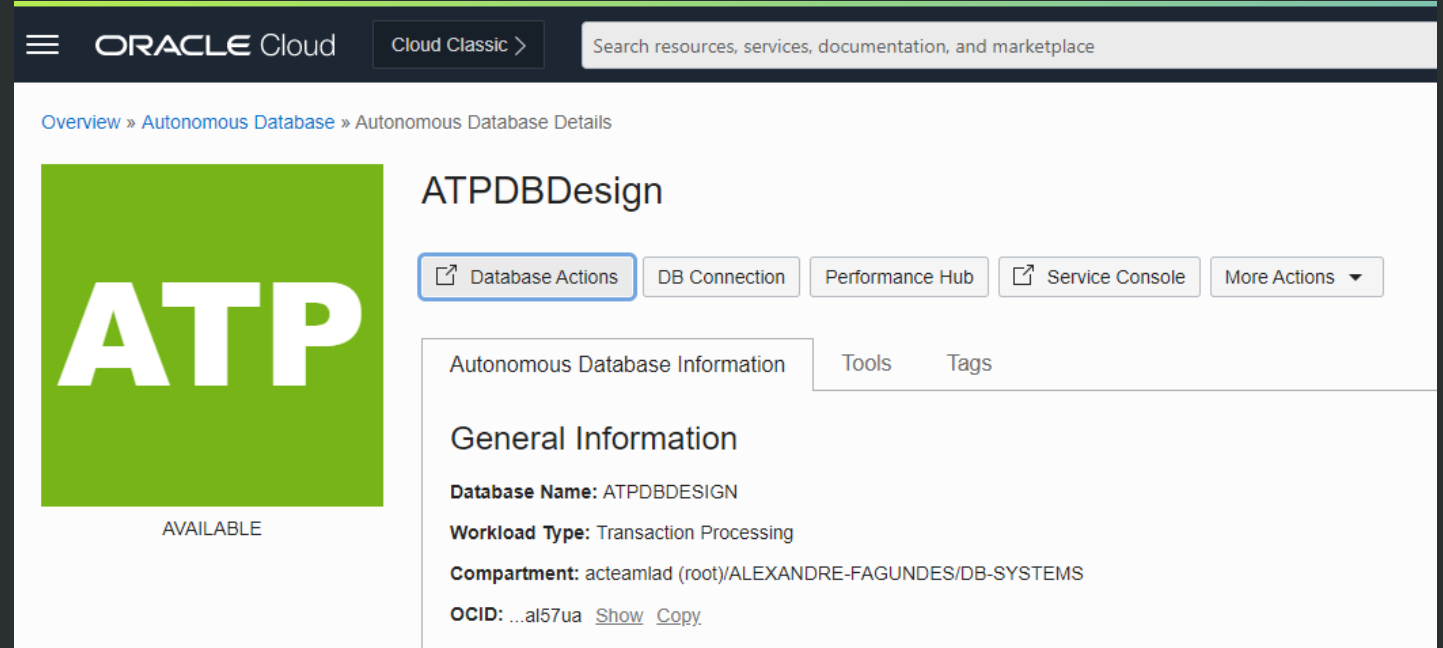
**Benchmark 1:** Launches 8 parallel sessions

**Benchmark 2:** 1 + Reduces DML triggers (table creation with DEFAULT ON NULL)

**Benchmark 3:** 2 + Improve sequences CACHE, drop few indexes

**Benchmark 4:** 3 + Partitioning

# How can we do that?



The screenshot displays the Oracle Cloud console interface for an Autonomous Database instance named ATPDBDesign. The top navigation bar includes the Oracle Cloud logo, a 'Cloud Classic' link, and a search bar. The breadcrumb trail indicates the path: Overview » Autonomous Database » Autonomous Database Details. On the left, a large green square contains the white text 'ATP', with the word 'AVAILABLE' centered below it. To the right of the ATP logo, the instance name 'ATPDBDesign' is displayed. Below the name is a row of action buttons: 'Database Actions' (highlighted with a blue border), 'DB Connection', 'Performance Hub', 'Service Console', and 'More Actions' with a dropdown arrow. Further down, there are tabs for 'Autonomous Database Information' (selected), 'Tools', and 'Tags'. Under the 'Autonomous Database Information' tab, the 'General Information' section lists the following details: 'Database Name: ATPDBDESIGN', 'Workload Type: Transaction Processing', 'Compartment: acteamlad (root)/ALEXANDRE-FAGUNDES/DB-SYSTEMS', and 'OCID: ...al57ua' with links to 'Show' and 'Copy'.

# DEMO





# Thank you



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