

Phase IV: Database Creation

Objective:

Phase IV of CustoVision involves the **creation and configuration of an Oracle pluggable database (PDB)** to provide a stable foundation for storing transactional data, forecasts, alerts, and analytical results.

Implementation Summary:

A **pluggable database** named `CUSTOVISION_PDB` was created within an Oracle container database (CDB).

Tablespaces were set up to separate data and indexes: `CUSTOVISION_DATA` for tables, `CUSTOVISION_IDX` for indexes, and `TEMP` for temporary operations.

Memory parameters (SGA & PGA) were tuned to support efficient execution of PL/SQL analytical queries, including forecasts and reporting.

Archive logging was enabled to ensure data recoverability and support audit requirements.

Autoextend was configured on all tablespaces to accommodate growth without manual intervention.

A dedicated database user `CUSTOVISION_ADMIN` was created with the necessary privileges, default tablespace, and quota limits.

Testing & Verification:

- PDB connection was verified via SQL*Plus.
- Tablespace availability and status were checked using `DBA_TABLESPACES`.
- Memory parameters and archive logging settings were confirmed with `V$PARAMETER` and `V$DATABASE`.
- User privileges and default tablespace assignments were validated.

Outcome & MIS Relevance:

- The database is fully configured to host **Phase V table structures and data**.
- Supports **analytics-ready operations**, such as demand forecasting, customer segmentation, and automated alert generation.
- Ensures **data integrity, performance optimization, and scalability** for future expansion of the CustoVision MIS system.