

ORACLE

ORACLE Database 23<sup>ai</sup>

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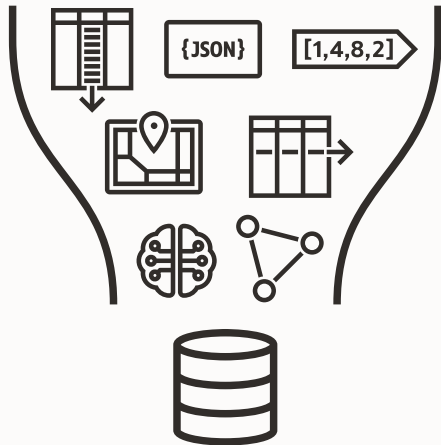
... für Forms Entwickler

# How We Deliver the Vision – Complete and Simple Platform for All Data Management Needs

## Converged Database

**Complete** support for all modern data types, workloads, and development styles

**Completely** consistent, scalable, available, and secure



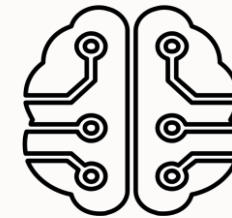
## Autonomous Database

Converged DB delivered as a self-driving, self-securing, self-repairing Cloud Database

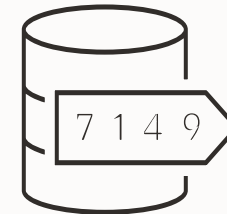
**Simplest** DB for developing and running **any** apps or analytics at **any** scale or criticality



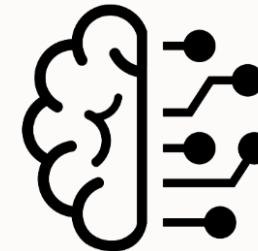
## Native AI in the Database



In-database AI/ML  
Predictive models



AI Vector Search



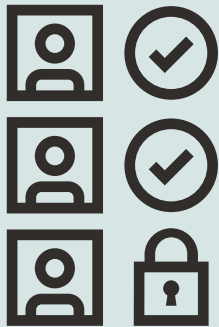
Generative AI

# Die 23ai Converged Datenbank und ihre SQL Erweiterungen

## Developer Role



## Schema Level Privileges



## SQL Enhancements



## 4096 Columns



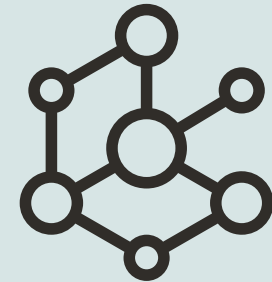
## Error Messages



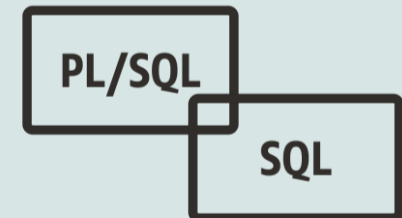
## SQL Domains



## Property Graph



## SQL Macros/Transpiler



# JSON & RESTful Services in und mit der Datenbank

## JSON in the Database



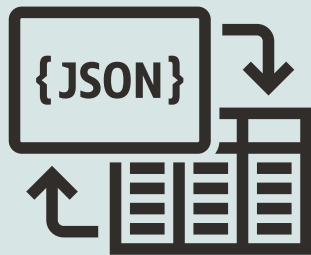
## ORDS



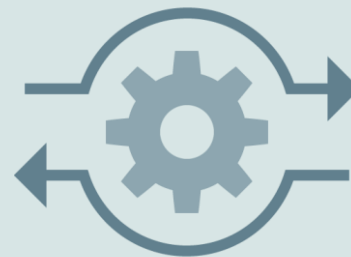
## RESTenable the Database



## JSON Relational Duality



## Document Store

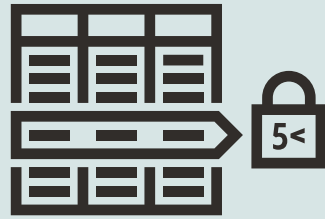


## MongoDB API



# Verschiedenes

## Lock-free Reservations



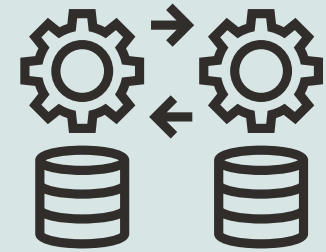
## JavaScript



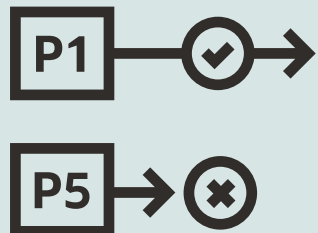
## SQL Firewall



## Microservices



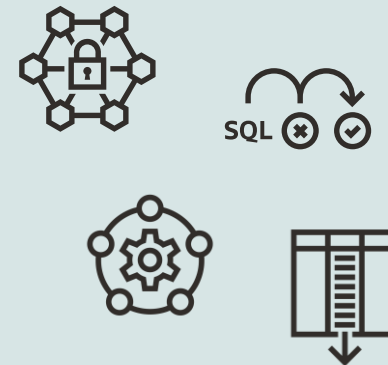
## Priority Transactions



## Ubiquitous Search



## Misc



## OKafka



Title and Copyright Information

Preface

- ▶ 1 Introduction to Upgrading Oracle Database
- ▶ 2 Preparing to Upgrade Oracle Database
- 3 Upgrading Databases with Oracle Data Guard Standbys
- ▶ 4 Using AutoUpgrade for Oracle Database Upgrades
- ▶ 5 Upgrades of PDBs and Non-CDBs Using Replay Upgrade, AutoUpgrade or FPP Gold Image
- 6 Troubleshooting the Upgrade for Oracle Database
- ▶ 7 Postupgrade Tasks for Oracle Database
- ▶ 8 Upgrading Applications After Upgrading Oracle Database
- 9 Downgrading Oracle Database to an Earlier Release

10 Oracle Database Changes, Desupports, and Deprecations

## 10 Oracle Database Changes, Desupports, and Deprecations

To assist you with developing a long-term plan for your database patching and upgrades, Oracle provides this list of changes, deprecations and desupports across multiple releases.

This document is updated regularly to reflect information Oracle can provide about releases as they happen, so that you can plan for changes in releases that you plan to move to at a later date. For example, if you are upgrading to Oracle Database 19c, it can be helpful for your long-term planning to be aware of features that have been desupported in a later release, or for which there is a deprecation notice in a later release. In addition, it can be helpful to be aware that security protocols or default parameter settings have changed in a later release, so that you can begin your preparations for that change in your current release well before you want to upgrade to a release where those deprecations or desupports are in effect.

- [About Deprecated and Desupported Status](#)

In addition to new features, Oracle Database releases can modify, deprecate or desupport features, and introduce upgrade behavior changes for your database

- [Desupported and Deprecated Release Notice Dates](#)

You can identify the date that a desupport or deprecation notice has been published by using the timestamp on the topic.

- [Using the ORADiff Tool to Find Release Changes](#)

<https://docs.oracle.com/en/database/oracle/oracle-database/23/upgrd/oracle-database-changes-deprecations-desupports.html>

# Oracle Release Analyser Diff Utility (OraDiff)

<https://oradiff.oracle.com/>

The screenshot shows the OraDiff web application interface. At the top, there is a dark navigation bar with the OraDiff logo on the left and user account information (MOS Account, Oracle Account, and email: rainer.willems@oracle.com) on the right. Below the navigation bar is a left-hand navigation menu with a green header 'Home' and several menu items: Parameters, Users, Roles, etc, Privileges, Included Fixes, Oracle Database Home, Objects, Fixed Objects, and Audit. The main content area has a white header with the title 'Oracle Release Analyzer Diff Utility' and a subtitle 'Find the differences between two Oracle Database releases'. Below this is a large green banner with the text: 'Oracle Release Analyzer Diff Utility (ORAdiff) allows you to compare two database releases to each other - with or without patch bundles on top.' Underneath the banner is a 'Get Started' section with a numbered list: 1. Click the menu icon on the upper left corner of the page; 2. Select an object type from the left-hand navigation menu. A small inset image in the bottom right of the banner shows a smaller version of the application interface.

