Autonomous Database

Learning Lounge

Autonomous Database changes the way you build smart applications. Learn how easy it is!



Hosted by Marcos Arancibia
Autonomous Database Product Management



Agenda

Autonomous Database changes the way you build smart applications. Learn how easy it is!

Marcos Arancibia, Senior Principal Product Manager will briefly explain what Oracle Autonomous Database is and the basic concepts behind it.



Marty Gubar, Director of Product Management will show how to simplify your path to success with Analytics thru a use case using **Autonomous Database** tool set easy-to-use, self-service platform:

- Discover and integrate data needed for analytics from multiple cloud stores
- Develop interactive dashboards
- Identify high-value, at-risk customers
- Personalize recommendations

He will also show you how to get access to tutorials with tips and tricks, live demos, best practices and Live Labs for free hands-on experiences, and show the ADB monthly Newsletter.



Open Q&A

Product Managers will answer any technical questions about the Autonomous Database service, its features, integration capabilities and use cases.





- This session is for you!!!
- Ask any questions in Q&A



Oracle Product Managers Q&A are on standby

- Recording will be available a few days after the session, in the same page you used to join today
- Make sure to interact with us!



Primer on Autonomous Database



Oracle Database: Platform of choice for the world's most critical workloads







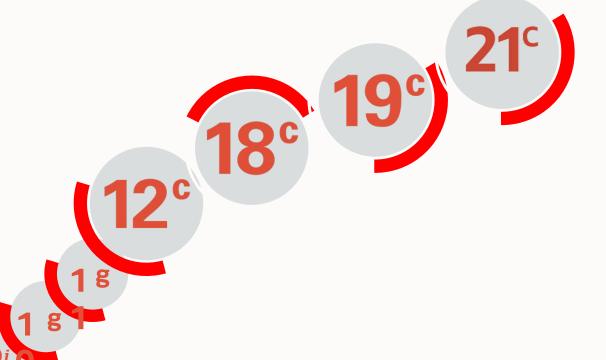
Broad ecosystem - everybody supports Oracle Database

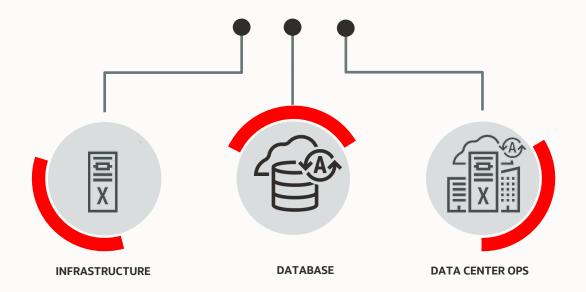


Oracle's delivers a new vision for data management

...an **EVOLUTION** of the world's #1 Database

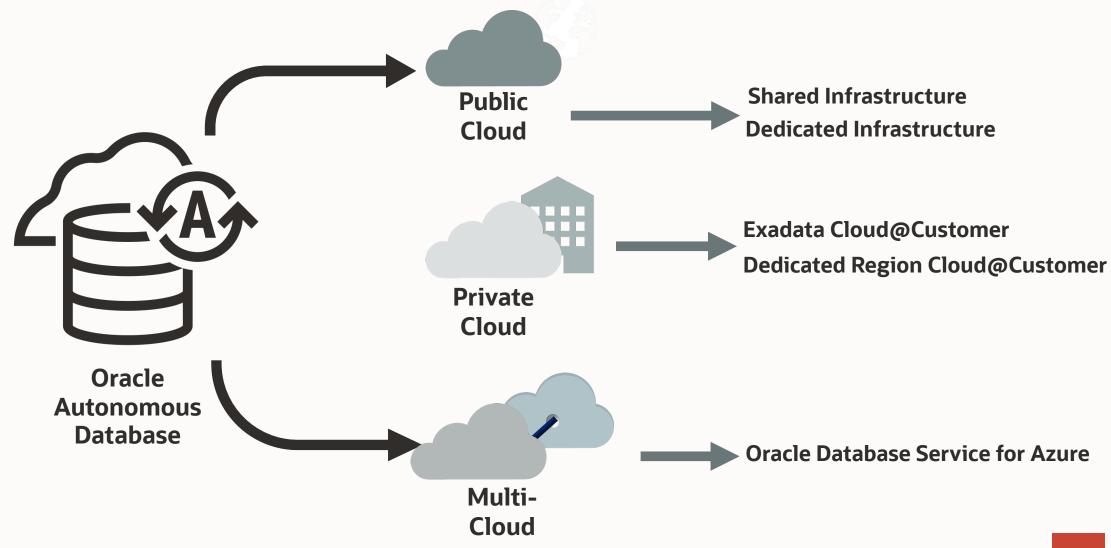
...a completely **NEW** type of cloud service







Deployment choices to match your CLOUD and DATA requirements



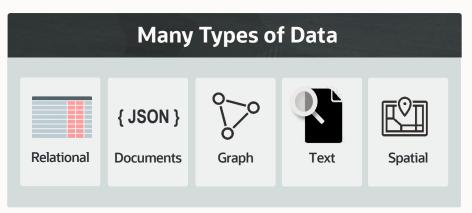
Oracle Database Vision

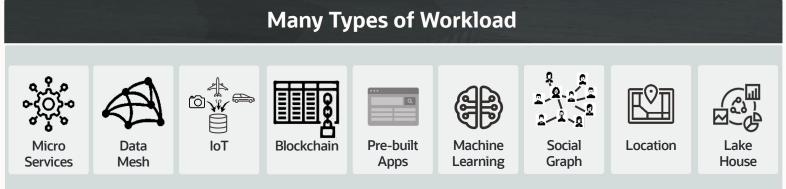
Make it simple to deliver modern datadriven application and analytic workloads in the cloud



Manage increasing complexity of modern business operations

Modern data-driven businesses create powerful experiences for users and more value for enterprises using a wide variety of data technologies:





Breadth-depth of technologies used by modern businesses makes data management increasingly **complex**

Making complete solutions manageable, available, and secure adds even more complexity

What is the best way to deliver modern data management platform?



Common platform, optimized for specific workloads





Data Warehouse

Built for decision support and data warehouse workloads. Fast queries over large volumes of data

Transaction Processing

Built for transactional workloads. High concurrency for short-running queries and transactions

APEX

Built for Oracle APEX
App development.
Creation and
deployment of lowcode applications, with
database included



Optimized for low-code

JSON

Built for JSON-centric application development.
Developer-friendly document APIs and native JSON storage



Optimized for JSON

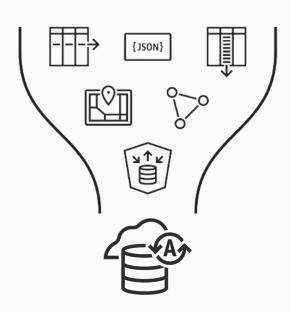


transaction processing

Develop smarter applications the way you want

Dramatically reduce complexity, cost, and time-to-market

Any Data



Converged, open, SQL database for multiple data types and data models

Any Workload



Transactional processing, data warehousing, analytics, machine learning, application development and mixed workloads

Any Development Style



Zero-code/low-code to any-code through built-in frameworks:

APEX, MongoDB API.

Support for existing development styles and frameworks





Autonomous Database changes the way you build smart applications. Learn how easy it is!





Build Smart Applications with Autonomous Database

Autonomous Database Learning Lounge

Marty Gubar

Product Management
Oracle Autonomous Database
May 2023

Developers prefer...

... single purpose databases

- Document Database
- Graph Database

Ease of Use Specific Features

CTOs want something else...

... ease of repurposing data across the enterprise

Common:

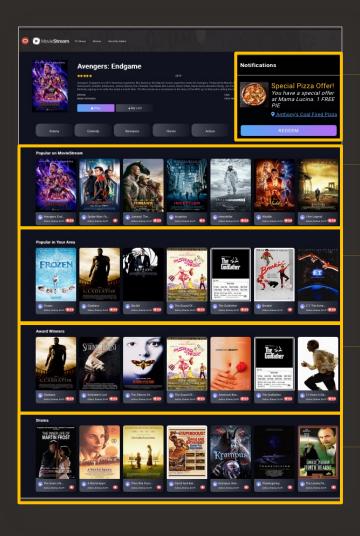
- Tooling
- Upgrades
- Patches
- Privacy policies

How can a company improve both?

developer productivity AND data productivity

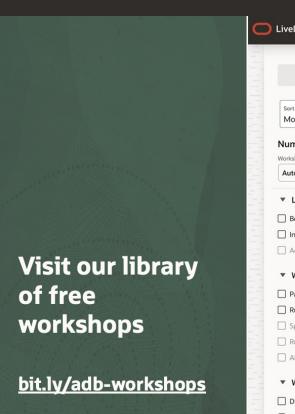
Oracle MovieStream: a personalized user experience

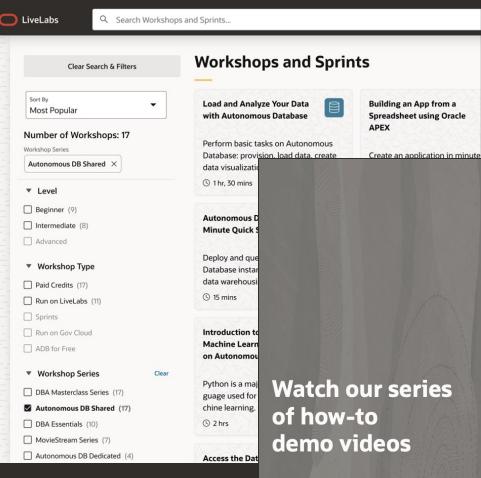
There is a lot of intelligence behind the application



- Machine Learning + Spatial Analytics
 Predict churn and localize an offer
- Analytic SQLRankings over recent transactions
- Analytic SQL + Spatial
 Rankings refined based on location
- JSON AnalyticsQuery complex JSON data types
- Graph Analytics
 Recommendations using sophisticated graph algorithms







bit.ly/adb-demos



Integrate any data from anywhere

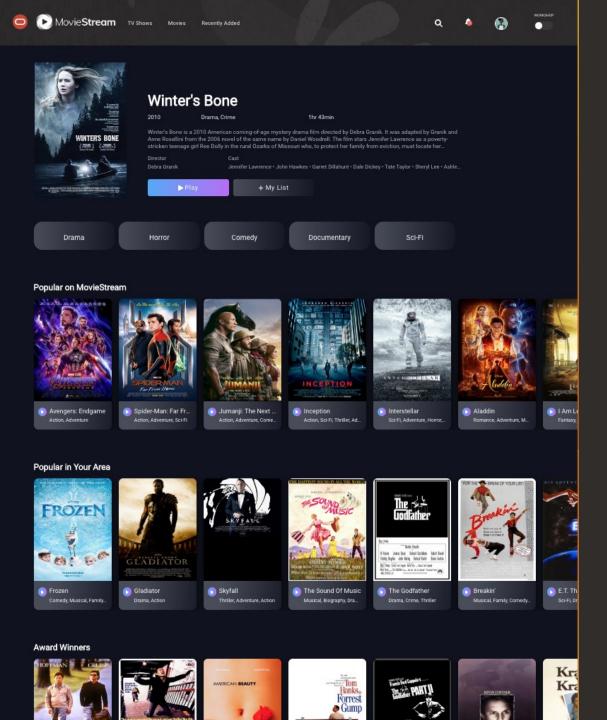
It's easy to integrate any data from anywhere. See how to spin up an Autonomous Database and then load or link to data from a variety of sources.







Simplified data integration



Developing the personalized experience

Front-end developer viewpoint

- Must deliver a compelling user experience
- Need a productive, easy to use API plus fast, reliable performance

Don't know and don't care how page contents are derived!

This person cares about the page content

She's the REST endpoint



To make the best product recommendations or find at-risk customers, she needs to work with lots of data sets

- about activity
- about communities
- about customers
- from partners
- and so much more



Your data can drive innovation, but...

95%

requires extensive manual involvement

60%

complained about overall management complexity

38%

too costly to acquire and maintain

33%

too slow to deploy

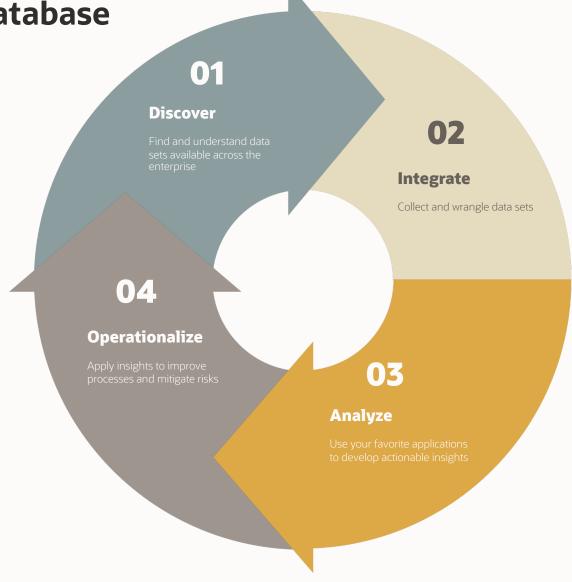
Data systems and tools need to be modernized to deliver more and faster



Simplify data with Autonomous Database

Do more with data

Put your data to work using built-in selfservice tools and your favorite applications. Focus on innovating and gaining insights from all your data. Sleep well at night with the confidence that your data is always safe and available.



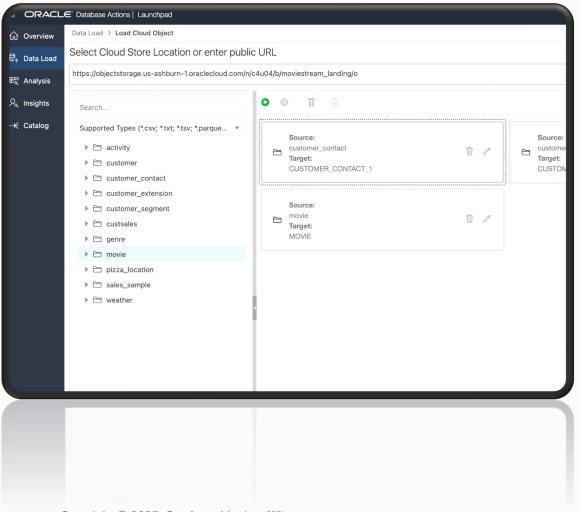
How MovieStream leverages analytics

- Discover and integrate data from Oracle Cloud and Amazon S3
 - What movies are popular near you?
 - Find high value customers at risk of leaving Oracle MovieStream and make an offer
 - Publish new data sets to interactive dashboards
 - Recommend movies based on communities
- 6 See the outcome in the Oracle MovieStream application!



Load or link to data sources

Productive, self-service data load experience



- Simple user experience to link, load, and transform data from databases and cloud storage
- Multi-cloud support, including OCI, Amazon S3, Azure Blob Storage, Google Cloud Storage, and more
- Multi-database support, including Microsoft SQL Server, Azure SQL, Amazon Redshift, IBM DB2, MySQL, PostgreSQL, Snowflake, MongoDB and more

Take advantage of external data using comprehensive APIs

Full listing of APIs at https://bit.ly/adb-apis

Authorization create credential

Data Loading

copy_data copy_collection get_object

Data Export export_data

REST APIs

send_request get_response_headers get_response_status_code get_response_text get_api_result_cache_size set_api_result_cache_size

Data Linking

create_external_table create_external_part_table create_hybrid_part_table create_external_text_index

File management

copy_object
delete_object
list_objects
move_object
put_object
bulk_copy
bulk_delete
bulk_download
bulk_move
bulk_upload
list_files
delete_file



APIs simplify optimized access to data lake sources

Example: automatically generated partitioned external table improves performance

Object store bucket: sales with monthly partitions

custsales

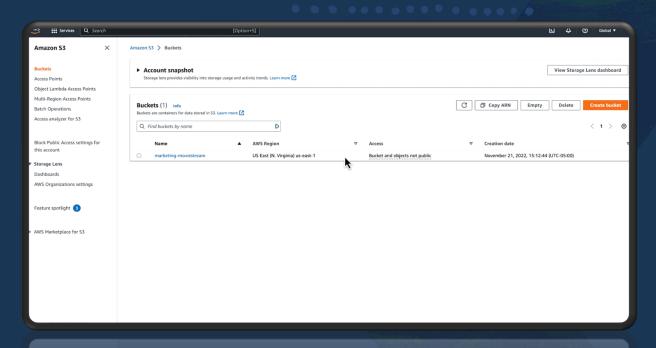
```
-- Create an external table
-- Partitions and columns automatically
-- derived from parquet file content and location
dbms cloud.create external part table
 table_name => 'ext_custsales',
 file_uri_list => '&gold_bucket/custsales/*',
 format => '{"type":"parquet",
              "partition columns":["month"]
```

https://bit.ly/adb-demos



ORACLE AUTONOMOUS DATABASE

Integrate data across clouds



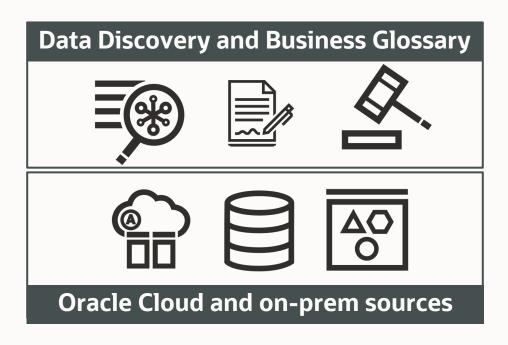
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Discover and understand available data

OCI Data Catalog - "Spotlight for OCI"

- Quickly discover data across Object Storage, Autonomous Database, Oracle databases, MySQL, Kafka, Hive and more for analytics
- Manage a business glossary and associated technical metadata to improve data governance



Immediately use Data Catalog metadata to find and query data sets

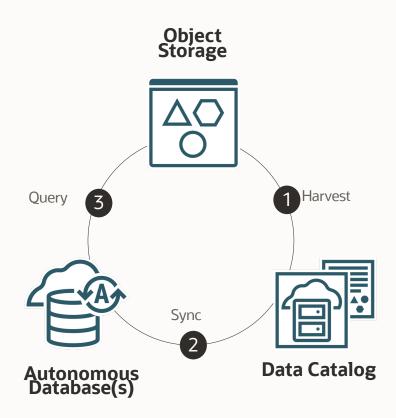
Autonomous Database both a Data Catalog source and consumer

Data Catalog is the source of truth for Object Store metadata

- Harvest object storage to derive schemas
- Manage business glossary, terms and tags
- Discover data using powerful search

Use Autonomous Database to discover and analyze data sets

- Managed schemas and tables defined automatically
- Use Oracle SQL to query both metadata and object storage data





Simplify analytics across complex data sources using Oracle SQL

Avoid falling off complexity cliff - Existing tools and applications just work

Advanced Statistics

Statistical aggregates
Linear regression
Descriptive stats
Correlations
Cross Tabs
Hypothesis testing
Distribution fitting
Pareto analysis

JSON Functions

JSON Table JSON Object JSON Query JSON Object

Common Analytics

Window functions
Ranking
Lag/lead
Top-N
WITH clause
Pivot/Unpivot
Aggregation functions
Approximate Queries
Ratio to Report

Advanced Analytics

Pattern matching Model clause

Machine Learning

Regression
Classification
Clustering
Anomaly detection
Ranking
Association
Feature selection
Row importance
Time series

Spatial Analytics

100s of functions Enrichment 2D, 3D, LiDAR, Raster, Network, Topology

Text Analytics

Indexing
Linguistic
Search words, themes
Document Classification
Named Entity Recognition
Sentiment Analysis

Graph Analytics

Property graphs
RDF graphs
Community detection
Ranking and walking
Evaluating community
Path finding
Link prediction

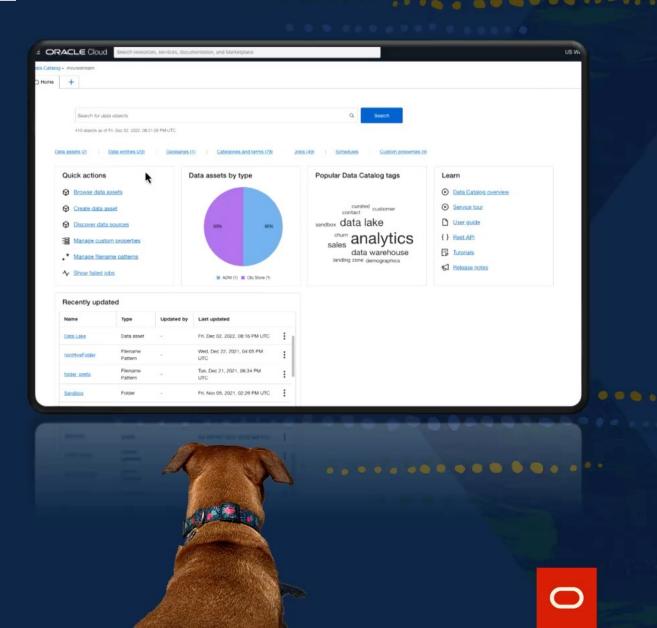


https://bit.ly/adb-demos



ORACLE AUTONOMOUS DATABASE

Discover and analyze new data sets



.

Analytics tools: freedom of choice



Certified Tools with Autonomous Database

Tableau SAS

Looker Microstrategy

SAP Business Objects Alteryx

Microsoft Power Bl Qlik

Cognos Tibco

https://www.oracle.com/database/adw-cloud-tools.html



Simple, interactive analytics

Oracle Analytics Cloud

Create and consume;

- Highly stylized interactive dashboards
- Parametrized dashboards
- Pixel-perfect reports
- Visualizations embedded into other apps

Experience continuity across browser and mobile app



https://bit.ly/adb-demos



ORACLE AUTONOMOUS DATABASE

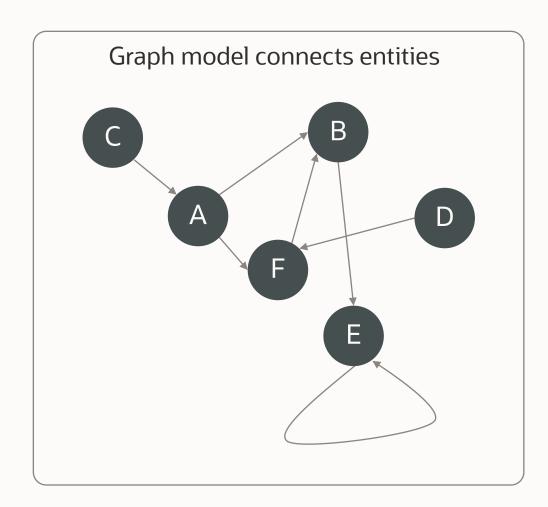
Interactive dashboards simplify insights



Graphs: A powerful way to derive insights from connections

How are graphs used?

- Community detection
- Influencer analysis
- Fraud prevention
- Physical networks, supplier networks, ...
- Dependency graphs
 - o Part hierarchies, data lineage, org charts, ...
- Workflows
- ... so much more



Use Graph analytics

Use SQL-like PGQL

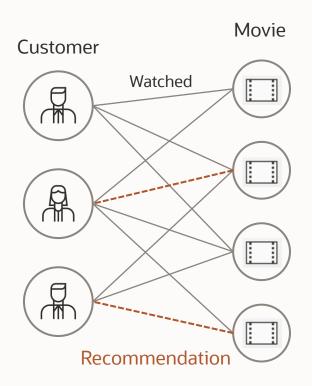
- Search for surrounding nodes
- Traverse property paths
- Pattern matching
- Extract sub-graphs

Execute graph algorithms (over 60 available)

- Community detection, influencer analysis
- Ranking and walking
- Structure evaluation
- Path finding
- Link prediction

MovieStream Product recommendation

Predicting links based on ranking and walking



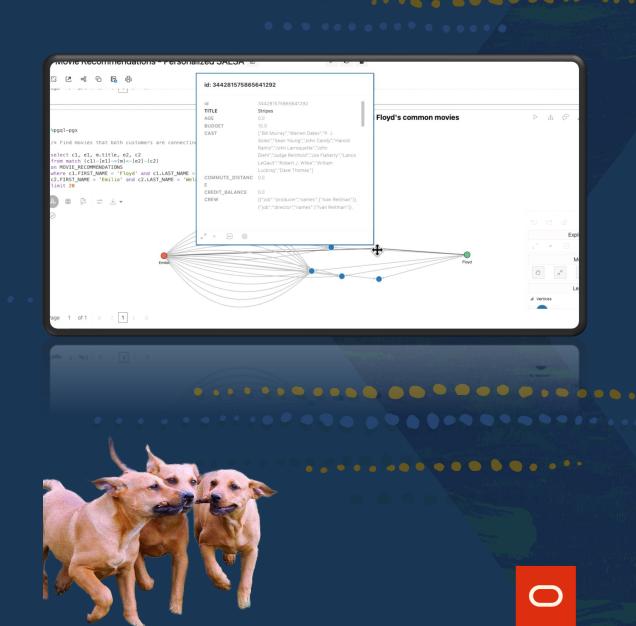


https://bit.ly/adb-demos



ORACLE AUTONOMOUS DATABASE

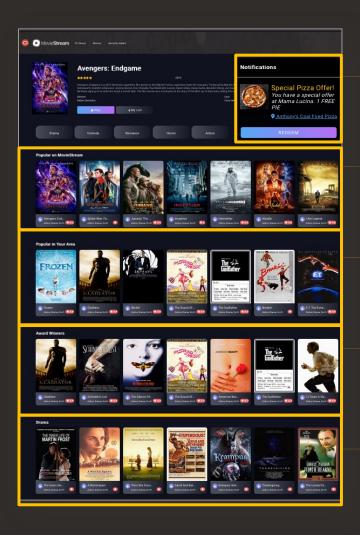
Make better recommend -ations



......

And that's how Oracle MovieStream was built

Simplify deep analytics to produce better results



- Machine Learning + Spatial Analytics
 Predict churn and localize an offer
- Analytic SQL
 Rankings over recent transactions
- Analytic SQL + Spatial
 Rankings refined based on location
- JSON AnalyticsQuery complex JSON data types
- Graph Analytics Recommendations using sophisticated graph algorithms



Summary



Simplify

Use more data - integrate data from any source

2 Do more with data to produce better results

Sleep better knowing your platform is always performant, always available and always safe



Oracle Autonomous Database

Important links that you will want to bookmark

OCI

Build, test, and deploy free Oracle Autonomous Database instances for an unlimited time with Always Free services. In addition, get a US\$300 cloud credit and try a wide range of Oracle Cloud services free for 30 days.





What's included with Oracle Cloud Free Tier?

Always Free services

Services you can use for an unlimited time.

- Two Oracle Autonomous Database instances with powerful tools, such as Oracle APEX and Oracle SQL Developer
- Two AMD Compute VMs
- Up to four instances of Arm Ampere A1 Compute with 3,000 OCPU hours and 18,000 GB hours per month
- Oracle Cloud Infrastructure (OCI) Block Storage, OCI Object Storage, and OCI Archive Storage; OCI Load Balancer and data egress; OCI Monitoring and OCI Notifications

Start with a US\$300 cloud credit

You'll have 30 days to use it—in addition to Always Free services.

- Access to a wide range of Oracle Cloud services for 30 days, including databases, analytics, compute, and OCI Container Engine for Kubernetes
- Up to eight instances across all available services
- Up to 5 TB of storage

Start for free

Sign-up for a free Oracle **Cloud Account**

bit.ly/adb-free-trial



Information, tips, tricks and sample code for data management in an autonomous, cloud-native, data-driven world



Review complete guide to getting started

bit.ly/get-started-adb



Senior Principal Product Manager



Marty Gubar **Director Product Management**

There's plenty of material to help you get started and be successful with Autonomous Database. We will keep this post updated with new information as it becomes available - so watch this space!

Try the 15 minute Quick Start Workshop

Deploy your first Autonomous Database and run queries in just 15 minutes! Oracle LiveLabs provides a great platform to help you get started with Oracle Cloud. You can run LiveLab workshops in your own tenancy or Oracle will provide a free sandbox for you. In this quick start, you will provision an Autonomous Database instance that is optimized for data warehousing workloads, load data from Oracle Object Storage and then run queries using Oracle SQL.



Try the Quick Start Workshop











Learn more with the Getting Started Workshop Series

Get hands-on expreience with Oracle Autonomous Database and its rich capabilities. The Getting Started workshop series introduces a range of topics, from basic provisioning and data loading to performing advanced analytics using SQL, machine learning, graph and spatial. The workshop series also highlights administrative features, like performance monitoring, auditing, masking, security assessments and more.

Go to the Getting Started workshop series

Check out the Getting Started Guide

The Getting Started guide provides you with the key documentation, tutorials, videos and other resources needed to be successful. Build out your solution using dashboards





Sort By

Most Popular

Workshop Series

▼ Level

Beginner (9)

Advanced

Sprints

Intermediate (8)

▼ Workshop Type

Run on LiveLabs (11)

Run on Gov Cloud

▼ Workshop Series

DBA Essentials (10) MovieStream Series (7) Autonomous DB Dedicated (4)

▼ Role

Developer (11)

Application Developer (10)

Business Analyst (10)

☐ DBA Masterclass Series (17)

Autonomous DB Shared (17)

☐ In-database Machine Learning Series (3)

ADB for Free

Paid Credits (17)

Number of Workshops: 17

Autonomous DB Shared X

Visit our library of free workshops

bit.ly/adb-workshops

Workshops and Sprints Clear Search & Filters

Load and Analyze Your Data with Autonomous Database



Perform basic tasks on Autonomous Database: provision, load data, create data visualizations.

(1hr, 30 mins

87498 Views

Building an App from a Spreadsheet using Oracle APEX



Create an application in minutes by simply uploading a spreadsheet!

3 45 mins

43045 Views

Get Started with Oracle Data Safe Fundamentals



Explore Activity Auditing, Alerts, Data Discovery and Masking, and User and Security Assessment.

(2 hrs

38197 Views

Autonomous Database 15 Minute Quick Start



Deploy and query an Autonomous Database instance that is optimized for data warehousing workloads.

(15 mins

33989 Views

Manage and Monitor Autonomous Database



Provision an Oracle Autonomous Database and perform basic monitor-

3 hrs

ing and management tasks.

Analyze, Query and Visualize **Graphs in Oracle Database**



Explore graph features by analyzing, querying, and visualizing the graphs in Oracle Autonomous (..)

(§ 1hr

22716 Views

Introduction to Oracle Machine Learning for Python on Autonomous Database



Python is a major programming language used for data science and machine learning. OML4Py is a new (..)

(2 hrs

Clear

18819 Views

Get started with Graph Studio on Oracle Autonomous **Database**



23902 Views

Explore graphs in an Autonomous

(1hr

Database.

Integrate, Analyze and Act on **All Data using Autonomous** Database



Learn how to get the most out of your data! Connect to the data lake and integrate structured and (..)

(1hr, 30 mins

9131 Views

Access the Data Lake using **Autonomous Database and Data Catalog**



Explore how to use automatic partitioning in Oracle Autonomous Database.

Automatic Partitioning in

Autonomous Database

11093 Views

Using the Database API for MongoDB



Connect MongoDB programs to **Autonomous Database**

Explore accessing the Data Lake using Autonomous Database (ADB) Shared and Data Catalog.

8127 Views

(1hr, 40 mins

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(3 hrs

3151 Views

(1hr

2679 Views

Say goodbye to data silos and specialized engines that complicate your life. See for yourself how Oracle Autonomous Database helps you achieve the best business outcomes by simplifying your data platform.

- Integrate any data from anywhere
- Empower innovators with integrated, self-service analytics
- Develop smarter applications the way you want
- Take advantage of a platform that is always ready, always secure



Watch our series of how-to demo videos

bit.ly/adb-demos

Integrate any data from anywhere

It's easy to integrate any data from anywhere. See how to spin up an Autonomous Database and then load or link to data from a variety of sources.



Create a database and tour the service

Deploy a complete, fully automated data management platform of any size that supports any type of workload. (3:14)

& Try it on LiveLabs!



Simplified data integration

Integrate data from many sources, including spreadsheets, databases, applications and data lakes. (2:00)

& Try it on LiveLabs!



Securely integrate data across clouds

Load data from partners' cloud stores using the native security measures of each cloud vendor. (3:28)

& Learn more!



Discover and analyze data lakes

Discover data lake assets with OCI Data Catalog and then automatically query and analyze those sources. No additional management is required. (5:56)

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2 Tourit and livel about

Important links for you to bookmark

Links to get you started and to make sure you keep up to date with everything related to Autonomous Database

1

Sign-up for a free Oracle Cloud Account

bit.ly/adb-free-trial

2

Review complete guide to getting started

bit.ly/get-started-adb

3

Visit our library of free workshops

bit.ly/adb-workshops

4

Watch our series of how-to demo videos

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The Autonomous Database Insider

Information, tips, tricks and sample code for data management in an autonomous, cloud-native, data-driven world

5

Sign up for "what's new" announcements

bit.ly/adb-announcements

Newsletter



Even more new features added to Autonomous Database in April

Keith Laker | 6 minute read



ADB Newsletter for February 2023

Keith Laker | 68 minute read



ADB Newsletter for November

Keith Laker | 50 minute read



ADB Newsletter for March 2023

Keith Laker | 51 minute read



Autonomous Database - a look back at 2022

Keith Laker | 115 minute read



November's edition of our regular YouTube recording for "What's New"

Keith Laker | 1 minute read







Join us on LinkedIn to chat about ADB

bit.ly/linkedin-adb











Invite connections

other connection

Show all →

Including Shankar Somayajula and 1

Oracle Autonomous Database

iii Public group

Highlight this post by pinning it at the top.

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Keith Laker · You

Senior Principal Product Manager, Autonomous Database and Analytic SQ...

Admin · 3h · •

Don't forget to subscribe to our LinkedIn newsletter - this will keep you updated on all the important announcements for Autonomous Database -

https://lnkd.in/eUzY-BRz

...see more



Newsletter

Autonomous Database Newsletter

Newsletter for all the latest new features in Autonomous Database

View

By Keith Laker, Senior Principal Product Manager, Autonomou... Published biweekly

در Like







Analytics

Last 15 days activity

60

Active members

8

New members

2

Posts

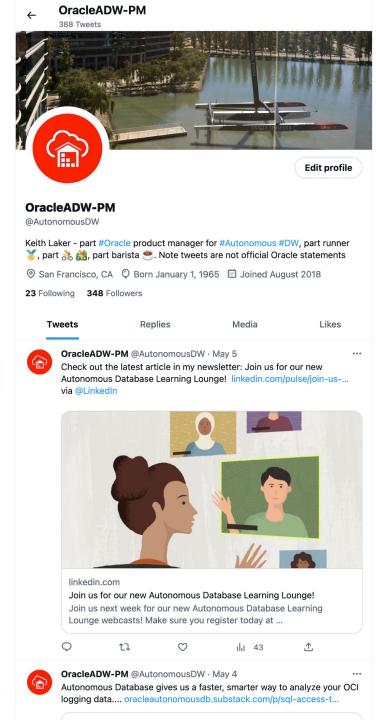
162

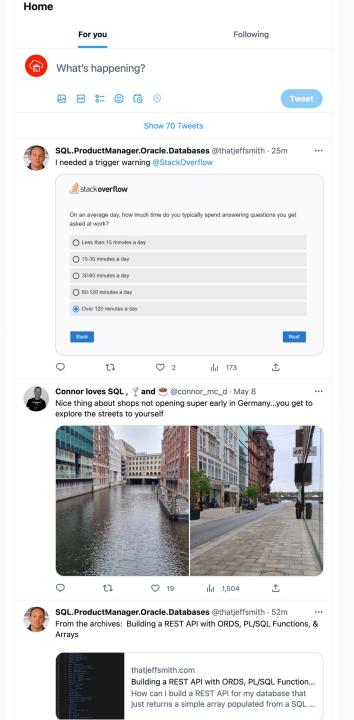
Post views

Show all →

Follow us on Twitter @AutonomousDW

twitter.com/AutonomousDW





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Links to get you started and to make sure you keep up to date with everything related to Autonomous Database

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6

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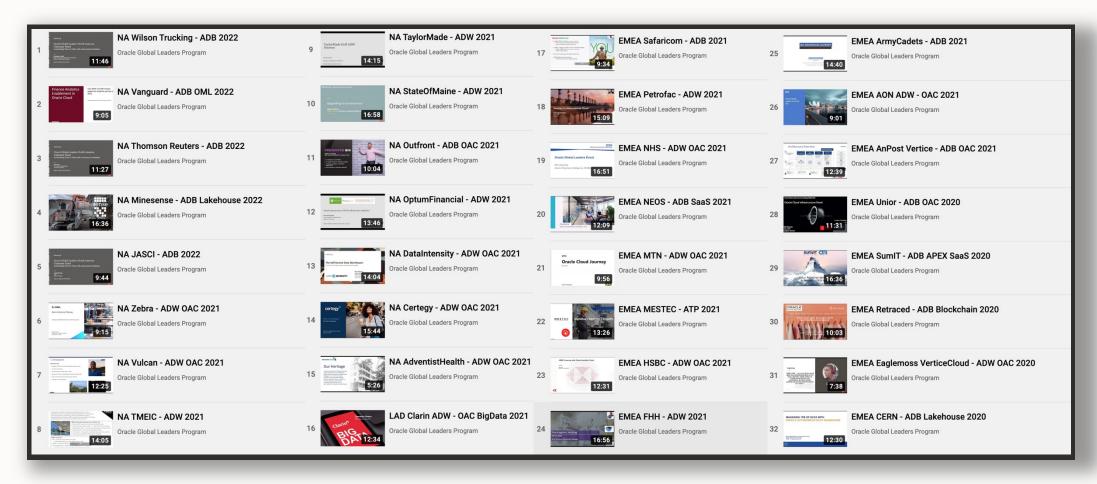
Got a question? We are on stackoverflow

bit.ly/adb-stackoverflow



Get ideas and inspiration for your next project with Autonomous

Hear how our customers are using the power of Autonomous Database to do more



bit.ly/adb-customers



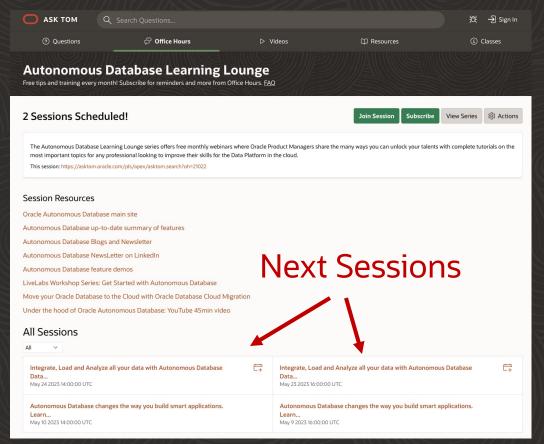
Open Q&A



Final thoughts

Main Autonomous Database site oracle.com/autonomous-database **Autonomous Datawarehousing Blogs** blogs.oracle.com/datawarehousing Site containing demos of ADB features bit.ly/adb-demos **Autonomous Database Newsletter** bit.ly/adb-news-linkedin Autonomous Database LiveLabs Workshop bit.ly/adb-workshops Autonomous Database Getting Started documentation bit.ly/adb-getting-started-doc Latest features of Autonomous Database bit.ly/adb-latest-features

bit.ly/adb-learning-lounge





Thank you por joining today's call !!!

Upcoming Sessions:

- Data Studio: Self-Service tools for Autonomous Database
- Data Sharing for Autonomous Database