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# Database Application Developer Newsletter

Technical news, how-tos, best practices, and more.

Hello Application Developers,

Happy new year and welcome to the January 2022 edition of Database Application Developer Newsletter.
We are very excited to share some new, useful, and insightful content so you can get 2022 off to a productive start.
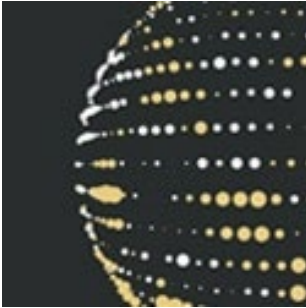
Here are some highlights of this month's issue:
- Get on-demand access to Oracle Database World sessions
- Get to know and get started with Graph applications
- Latest news on Machine Learning
- Latest technical best practices and how-to resources for Oracle Database, languages, APEX, Spatial, and more

For more insights and content, check our social media channels and other resources listed at the end of this newsletter.

Kind regards,
- Your Database Application Developer editor

## It's not too late to discover the latest innovations in application development

**Oracle Database World 2021** was a huge success with more than 90 sessions on topics such as Oracle Autonomous Database, Data Lake, Exadata Cloud@Customer, Machine Learning, Database 21c, Kubernetes and microservices, and more. Did you miss some of the sessions, or missed the event entirely? Don't worry – You can watch the sessions and experience hands-on labs on-demand. **Access all session replays**.
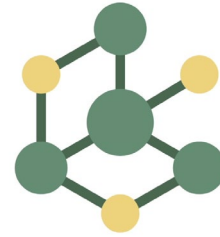
Key session videos you don't want to miss:
- **Rethinking Database Architecture to Embrace Modern App Dev** (24:17), Keynote by Juan Loaiza, Executive Vice President, Mission Critical Database Technologies

- [Automating Data Management for All](#) (27:00), Keynote by Andy Mendelsohn, Executive Vice President, Database Server Technologies
- [Next-Gen, Data-Driven Application Development](#) (28:07), Mike Hichwa, Senior Vice President, Software Development
- [In-Database Machine Learning: Automate, Scale, Deploy](#) (30:31), Mark Hornick, Senior Director, Product Management
- [Modern Application Development with Oracle REST Data Services](#) (31:36), Jiadong Chen, Database Tools Product Manager
- [Oracle APEX: Enterprise Class Low Code](#) (24:51), Shannon Kennedy, Consulting Member of Technical Staff and Shakeeb Rahman, Architect

## Focused Topic: Graph Database and Analytics

Oracle Graph gives you an access to high-performance and feature-rich Oracle Graph APIs, algorithms, and notebooks in Oracle Database and Autonomous Database. Graphs easily uncover hidden connections in your data and demonstrate their impact with automated, interactive tools. Here are some tips to get you started with your applications using Oracle Graph.

### Get to know Oracle Graph

Learn about query and analytic capabilities of Oracle Graph, and see how easy it is to get started using Graph Studio in Oracle Autonomous Database – Melli Annamalai

Video: [All About Graphs in Oracle Database](#) (28:40)

LiveLab workshop: [Get Started with Graph Analytics on Oracle Autonomous Database](#)

### How-to tutorials for those new to Oracle Graph

A tutorial for beginners, based on a use case. Learn how to manage bank transaction data as a graph, and what kind of analysis you can do with Oracle Graph – Ryota Yamanaka

Blog: Analyze Bank Transaction Data using Graph: [Part 1 of 3](#) | [Part 2 of 3](#) | [Part 3 of 3](#)

### Try Oracle Graph for free

An introductory, how-to blog on building Oracle Graph using free Oracle Database image on Docker – Ryota Yamanaka

Blog: Build Oracle Graph on Docker: [Part 1 of 2](#) | [Part 2 of 2](#)

## Technology announcements

### [Announcing Oracle APEX 21.2](#)

News on a recent release of Oracle APEX, enterprise low-code platform that lets you build scalable and secure enterprise applications. - Chaitanya Koratamaddi

### [Announcing Oracle Spatial Studio 21.3](#)

Learn about new features in this new release, including how to easily enrich your maps with more data. - Carol Palmer

### [Announcing Oracle Support for .NET 6 and Entity Framework Core 6](#)

Oracle Database now supports the new Microsoft .NET 6 and Entity Framework Core 6 versions. - Alex Keh

### [Announcing Oracle Identity and Access Management for .NET Apps using Oracle Autonomous Database](#)

ODP.NET supports Oracle Identity and Access Management (IAM) cloud service for unified identity across Oracle cloud services, including Oracle Autonomous Database — Shared.- Alex Keh


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## Developer events

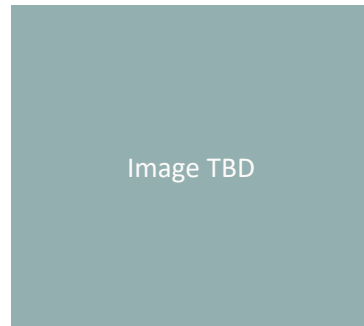[Check upcoming Oracle Developer Events](#)

Save the date - **Oracle Developer Live: Java Innovations**
March 22, 2022 | Americas
March 24, 2022 | Europe, Middle East, and Africa, Japan, Asia-Pacific

## Focused Topic: Machine Learning

Machine learning helps you uncover hidden patterns and insights in data. With Machine Learning in Oracle Database, you can create and deploy machine learning models with reduced data movement. Use machine learning without coding with AutoML.


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### Discover Oracle Machine Learning

Quick summaries of the components that make up the Oracle Machine Learning capabilities.
Blog: [Explore Oracle Machine Learning for your NYR](#) – Mark Hornick
Blog: [ICYMI: Popular Recent Oracle Machine Learning Activities](#) – Sherry LaMonica
Blog: [Oracle Data Miner Now Available for Autonomous Database](#) – Sherry LaMonica

### Try using Machine Learning for free

Explore the range of machine learning capabilities built into Oracle Autonomous Database through a workshop.
Blog: [Learn Hands-on with Oracle Machine Learning Fundamentals Workshop](#) – Mark Hornick

### Use case: Forecasting Household Power Consumption

Read the process of building models on house power consumption time series dataset using exponential smoothing in-database algorithm in Oracle Machine Learning for SQL.
Blog: Forecasting Household Power Consumption using OML4SQL Time Series: [Part 1](#) | [Part 2](#) – Jie Liu

### Ask experts @ Ask Tom Oracle Machine Learning Office Hours

February 10, 2022: [Hands-On Lab: Introduction to Oracle Machine Learning for Python on Autonomous Database](#) with Marcos Arancibia

Recordings: Feature highlights for new Oracle Machine Learning notebook templates with Marcos Arancibia –
[Classification](#) | [Regression](#) | Clustering | Feature Extraction
Recording: [What's new with Autonomous Database](#) with Sherry LaMonica

## What's new in database application development

### Oracle Database and Oracle Autonomous Database

Blog: [Search indexes for JSON](#)  - Roger Ford and Zhen Hua Liu

Blog: [Oracle Database goes Kubernetes Native!](#) - Kuassi Mensah

Blog: [Oracle Database 21c (21.3) comes with full production support for Oracle Sharding on Kubernetes and Docker!](#) - Pankaj Chandiramani

Blog: [Oracle Database 21c Enhanced In-Memory External Table Support](#) - Andy Rivenes

Blog: [Creating an MQTT to Oracle Advanced Queuing (AQ) Bridge in Node](#) – Todd Sharp

## Languages

Blog: [SQL Tuning: How to determine why the Optimizer is picking the wrong index](#) – Maria Colgan

Blog: [How to write SELECT * EXCEPT queries in Oracle Database](#) – Chris Saxon

Blog: [How to Store, Query, and Create JSON Documents in Oracle Database](#) – Chris Saxon

Blog: [A collection of PL/SQL essays](#) – Chris Saxon

Blog: [What's the R Consortium been up to?](#) – Mark Hornick

## Low-code / APEX

Blog: [Try Oracle APEX 21.2 on apex.oracle.com!](#) - Chaitanya Koratamaddi

Blog: [Enhancements for Alert and Confirm Dialogs in Oracle APEX 21.2](#) - Monica Godoy

Blog: [Smart Filters in Oracle APEX 21.2](#) - Salim Hlayel

Blog: [What's New for Report Regions in APEX 21.2](#) - Monica Godoy

Blog: [Oracle Autonomous Database Vanity URLs Part 3: Blocking ORDS-Provided Developer and Administrator Tools](#) – Todd Bottger

## Microservices

Workshop: [Simplifying Microservices with converged Oracle Database](#)

Blog: [PL/SQL Microservice - Simple, Concise, Fast](#) - Richard Exley

## DevOps

Workshop: [Unified Observability in Grafana and Oracle Database Workshop for Developers/DevOps](#)



## Thought-provoking success stories

[NEC boosts productivity and app development on Oracle Cloud](#)

The IT service provider adopts Oracle Autonomous Database and APEX for low-code app development, improving time to market and the partner experience.

[Telecom giant Telstra empowers citizen developers with Oracle APEX](#)

Telstra consolidates dozens of custom internal tools on Oracle Application Express, saving millions per year in IT costs.



## Get your hands dirty… for free!

[Get Autonomous Database for Free](#):
1. Oracle Cloud Free Tier plus 30-day free trial
2. $300 in credits for Cloud services

Gain knowledge and grow opportunity - **[Free Oracle Cloud Infrastructure (OCI) training, plus free certification](#)** through February 28, 2022

**Get hands-on experience** on hundreds of Oracle solutions 24x7, for free on **[Oracle LiveLabs](#)**.

**Learn, Write, and share SQL** at a free interactive **[Oracle Live SQL](#)** site, built with Oracle APEX running on Oracle Database.

[Free SQL Course - Databases for Developers: Foundations](#) with Chris Saxon
Earn a certificate on SQL by completing this on-demand, 12-part boot camp. Learn through videos on database concepts, interactive SQL tutorials, and quizzes.

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## Useful links to keep your skills sharp

**Blogs**: [Oracle Developers](#) | [Oracle Database Insider](#) | [Oracle Cloud Infrastructure](#) | [Oracle APEX](#)

**Newsletters**: Oracle Database Insider | Other Oracle Newsletters

**Websites**: [Oracle Database](#) | [Oracle Autonomous Database](#) | [Oracle Developer Resource Center](#) | [Oracle Developer Tutorials](#)