

Oracle Autonomous Database Update



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Autonomous Database + Analytic SQL



Safe harbor statement

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Oracle Autonomous Database

A new era of cloud database where everything is automated

Enterprise-Class



Security, availability,
scalability, and performance

Self-Driving



With true cloud-elasticity
for low cost

Most Productive



Converged Database plus
self-service tools for business
analysts, developers and more

Elastic Scaling in Autonomous Database

Lower costs in the cloud

Size your database for your workload

- Select the exact number of CPU's you need
- Not constrained by fixed-shape 't-shirt' sizes
- Grow incrementally online

Auto-scaling for changing workloads

- Instantly scales up and down based on workload
- Simple – no system sizing expertise required
- Full performance - no 'cache warm-up' required



Application Integration with Autonomous Database

Rapidly get insights from your enterprise application data

Oracle Fusion Analytics Warehouse

- Pre-built data warehouse for Fusion ERP and Fusion HCM

NEW Built-in connectors for easy data extraction from enterprise applications

- Oracle Fusion Cloud Applications
- Netsuite
- Oracle eBusiness Suite
- Peoplesoft
- Siebel
- JD Edwards
- SAP
- Salesforce



Security in Autonomous Database

Unmatched security in the cloud keeps your data safe

Secure database infrastructure

- Always encrypted, always audited, always patched

Automated data protection

- Risk assessment and analysis of user privileges
- Automatic discovery and masking of sensitive data

Even prevents privileged users from accessing others' business data

- Utilizing Oracle's unique Database Vault



Autonomous Database | Optimized by Workload



Autonomous Database delivers highly available databases, configured and tuned for specific workloads, scales compute resources when needed, all done automatically



ADW

Optimized for all types of analytical processing

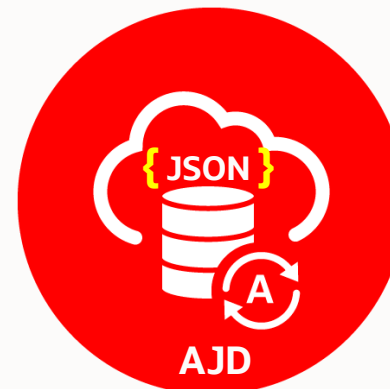
- EDWs
- Data lakes
- Departmental Data Warehouse
- Data science + machine learning
- Data and IoT event streams



ATP

Optimized for OLTP and real-time operational applications

- Enterprise transaction applications
- Mission-critical applications
- Mixed-workload applications
- Cloud native applications
- Low-code applications



AJD

Optimized cloud document service for JSON-centric apps

- Mobile applications
- Apps with dynamic personalized experiences
- Content and catalog management
- Integrated IoT applications
- Digital payment applications



APEX

Coming Soon

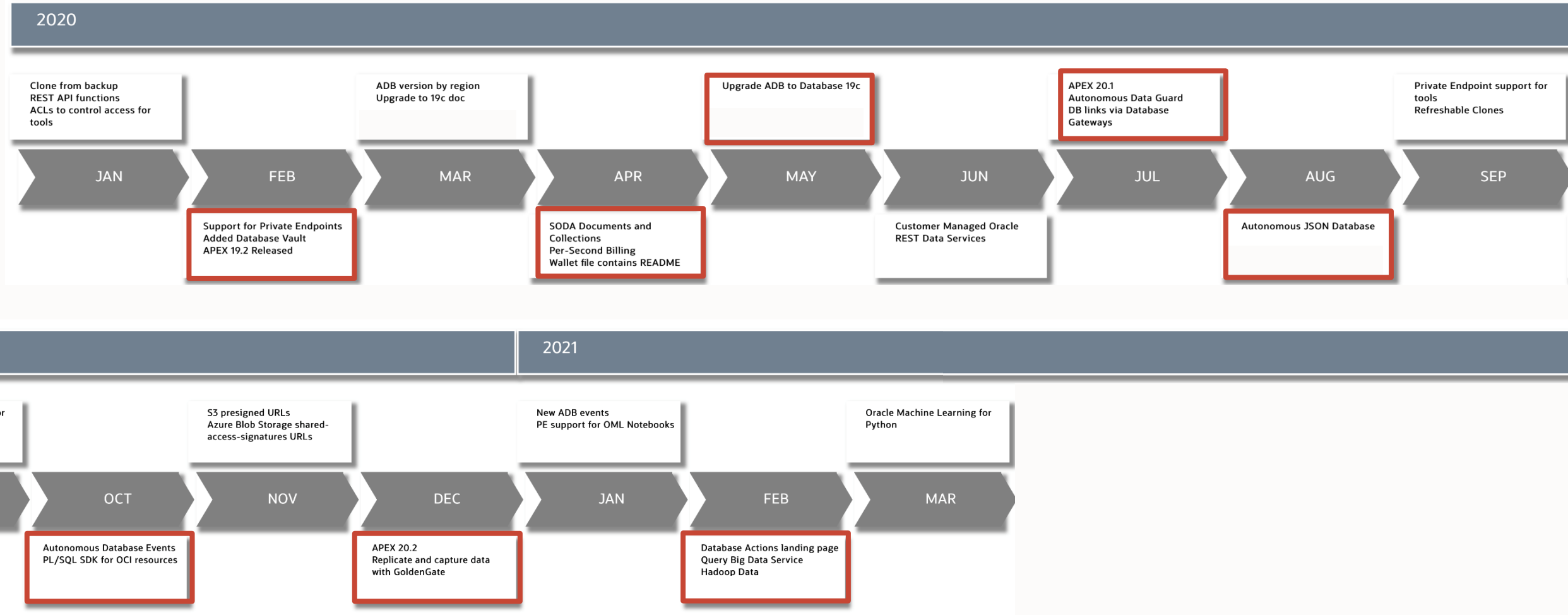
Low-code development service

- Building scalable, secure enterprise apps
- Extensive library of pre-built components
 - Powerful components enable high-level of functionality with almost zero coding
- Eliminates 98% of hand coding

What's New with Oracle Autonomous Database?



Autonomous Database: Recent New Features

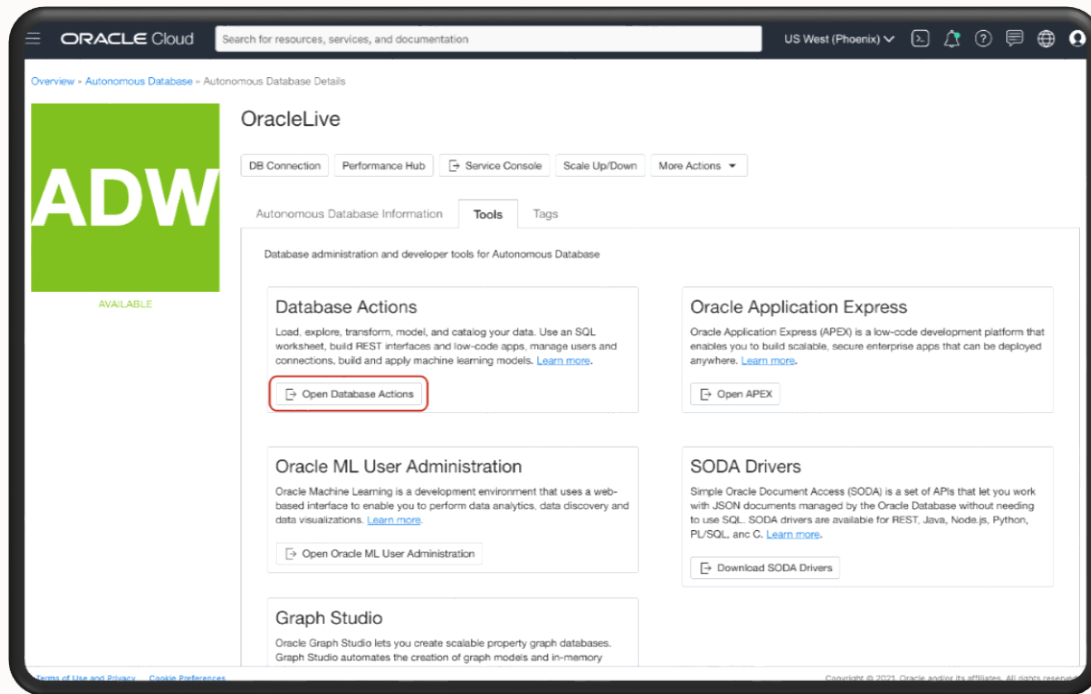


Available today

Evolve to become a unified data management platform

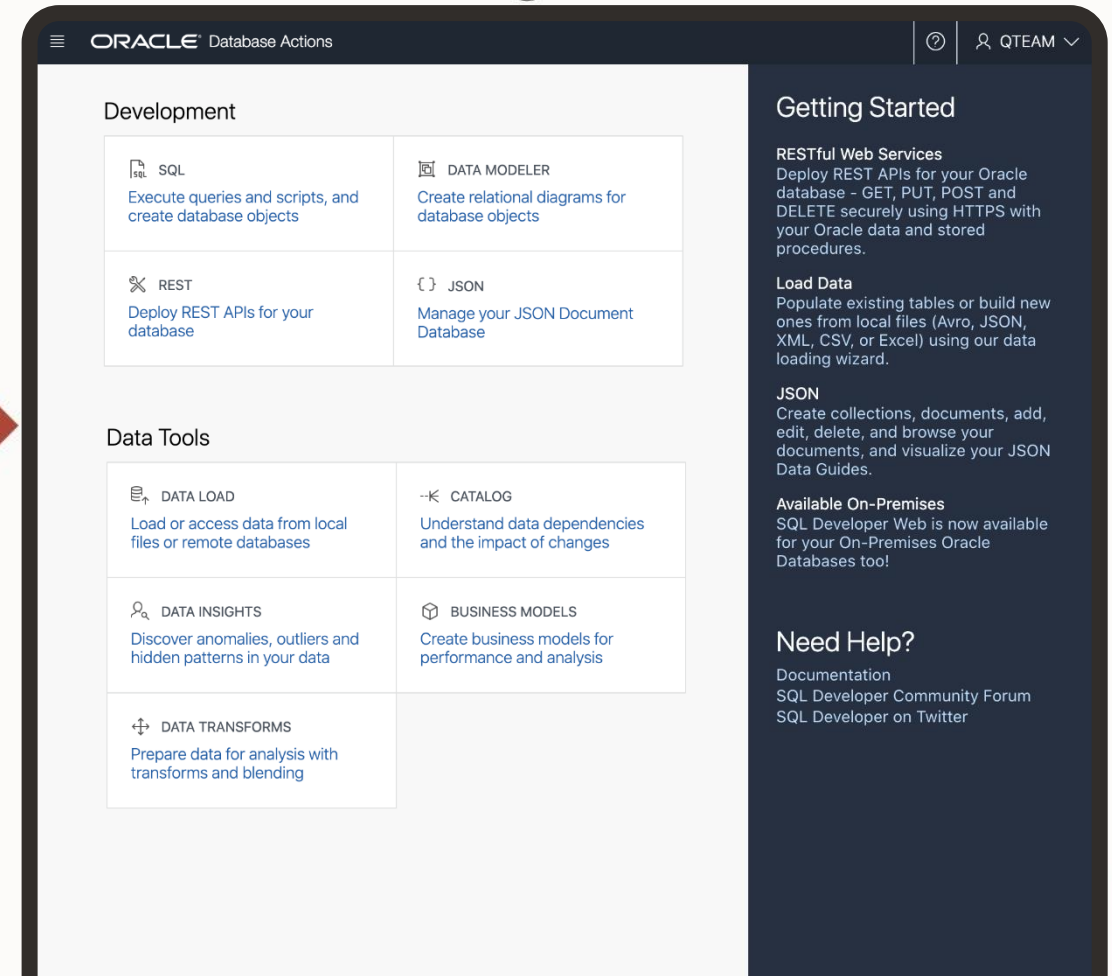
ADB yesterday

- A handful of integrated tools



Autonomous Database today

Broad set of data management tools



NEW Expanded Vision for Autonomous Database

Empowering innovators with new self-service data management tools

Data Analysts



Data Scientists



LoB Developers



NEW Self-Service Tools for Autonomous Database

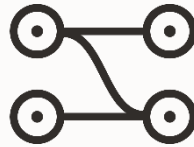
From data to insights with built-in self-service data tools

NEW Load



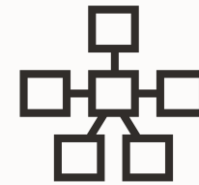
Simple drag & drop loading

NEW Transforms



Declarative transformations
and data cleansing

NEW Business Model



Automatically create
powerful business models

NEW Insights



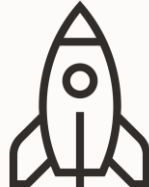
Guided discovery of hidden
patterns and anomalies

NEW Model



Easily create models with
AutoML

NEW Deploy



Integrate ML models into
apps via REST or SQL

NEW Graph Analysis



Discover related connections
and patterns

Low-Code AppDev

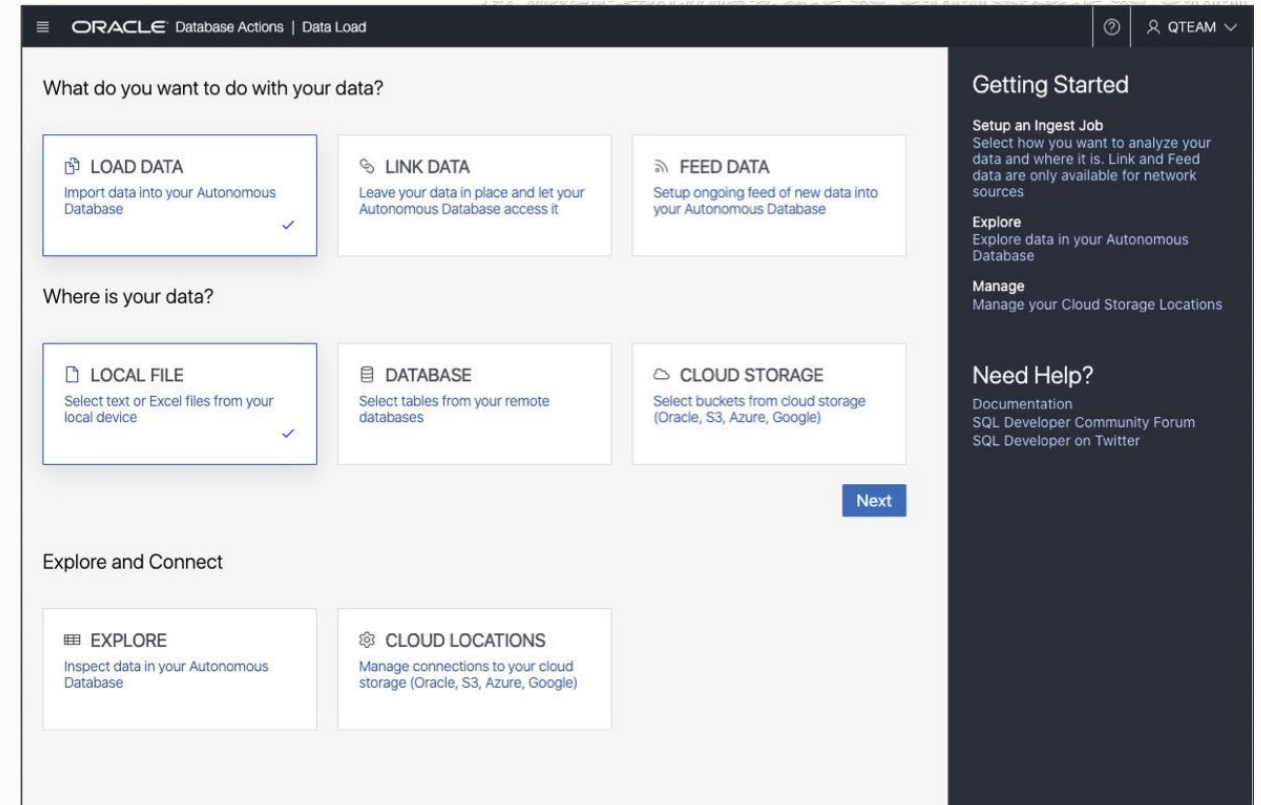


Build, deploy and manage
data-driven applications

Self-Service Data Loading From Anywhere

Simple 'Drag and Drop' Data Loading

- Files on local computer
- Files in Object Storage (incl AWS S3, Azure Blob Storage, Google... + AWS-S3 compliant store)
- Oracle Databases (on-prem and cloud)



Self-Service Zero-Code Data Transforms



Declarative, zero-code

New, easy-to-use cloud UI

'Drag and Drop' to create Maps

Rich set of transformation operators

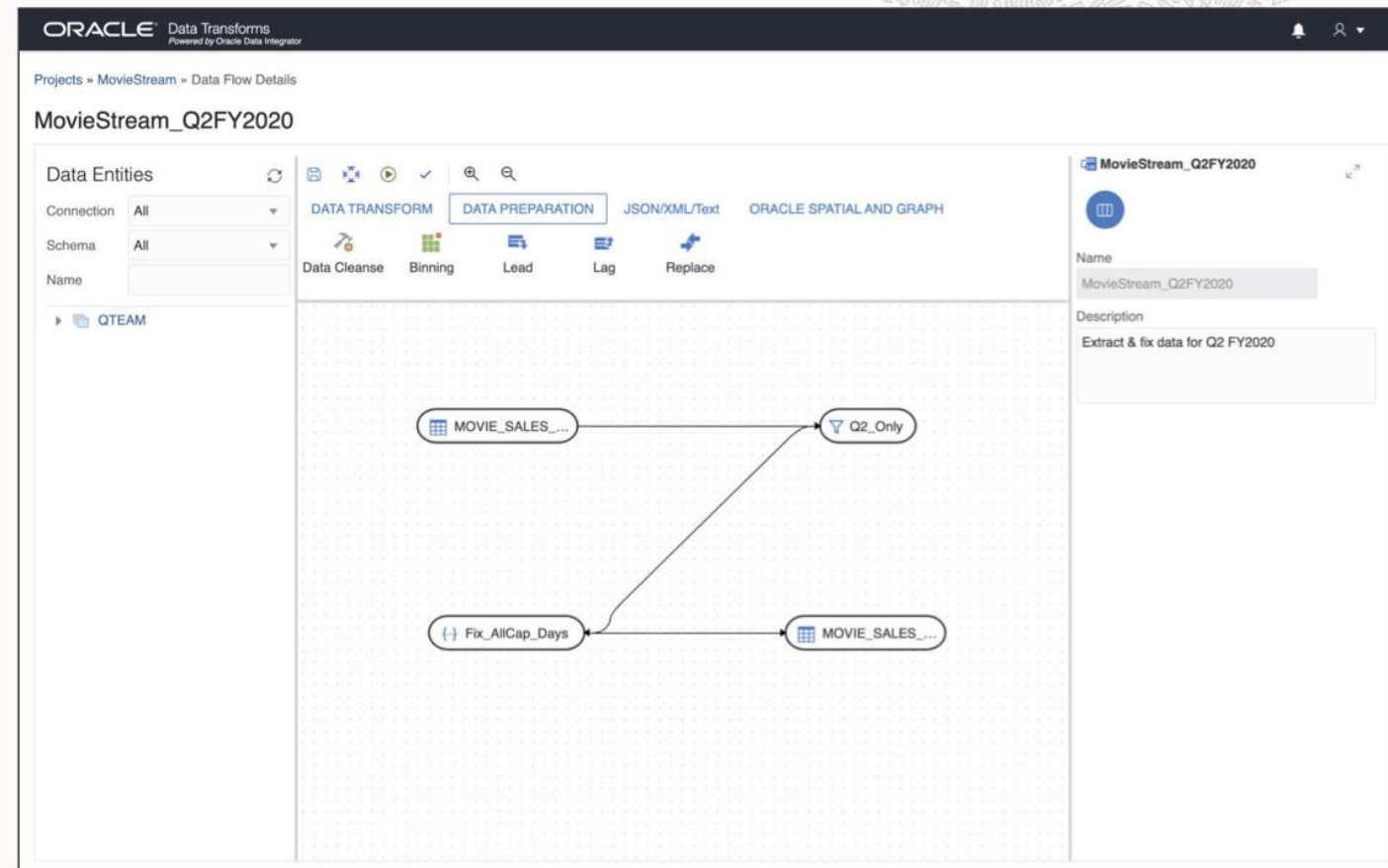
Transform, Quality, Analytic, Spatial, ML

All DB Operators

Autonomous discovery

Discover relationships, recommend actions

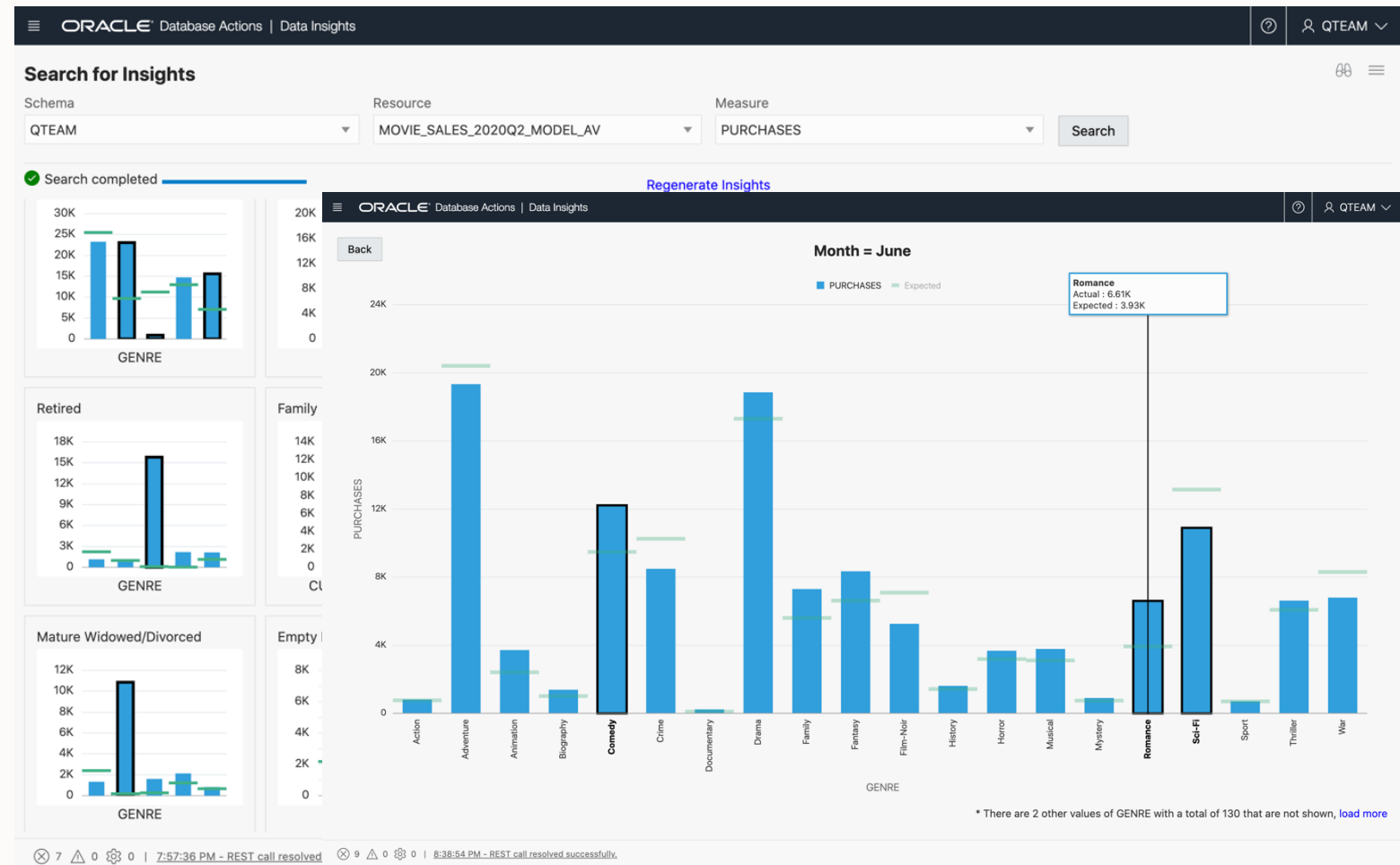
Auto code generation



Auto-Insights – Data Discovery Driven by Machine Learning

Automatic Insight Discovery

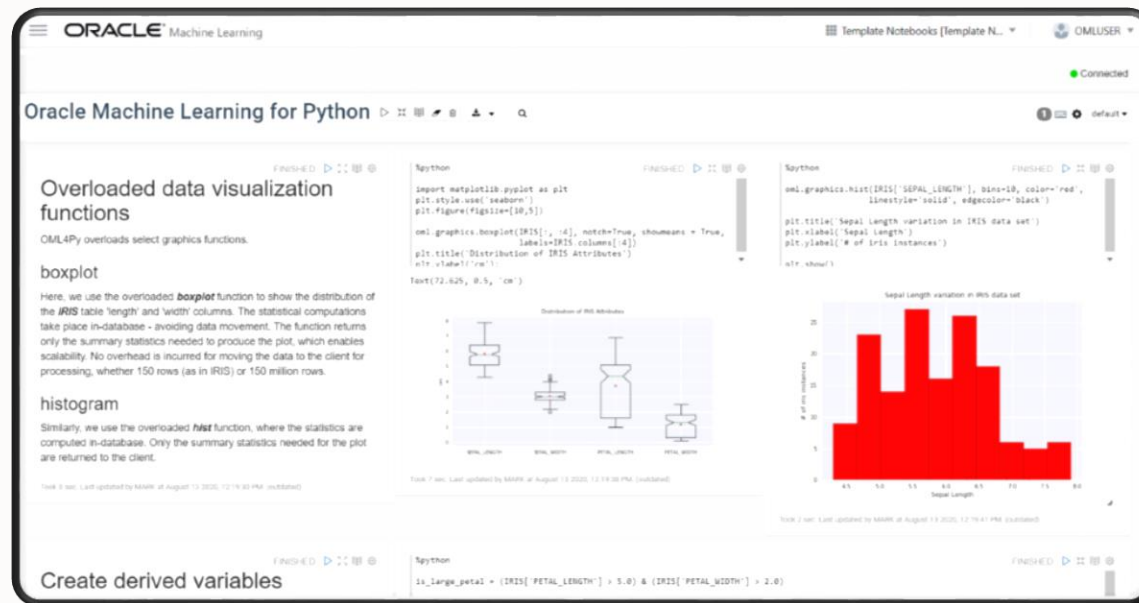
- Discovers hidden patterns and outliers
- Crawl over business model, running as background process
- Variety of algorithms including singular value decomposition



Key Advances In Machine Learning For Everyone

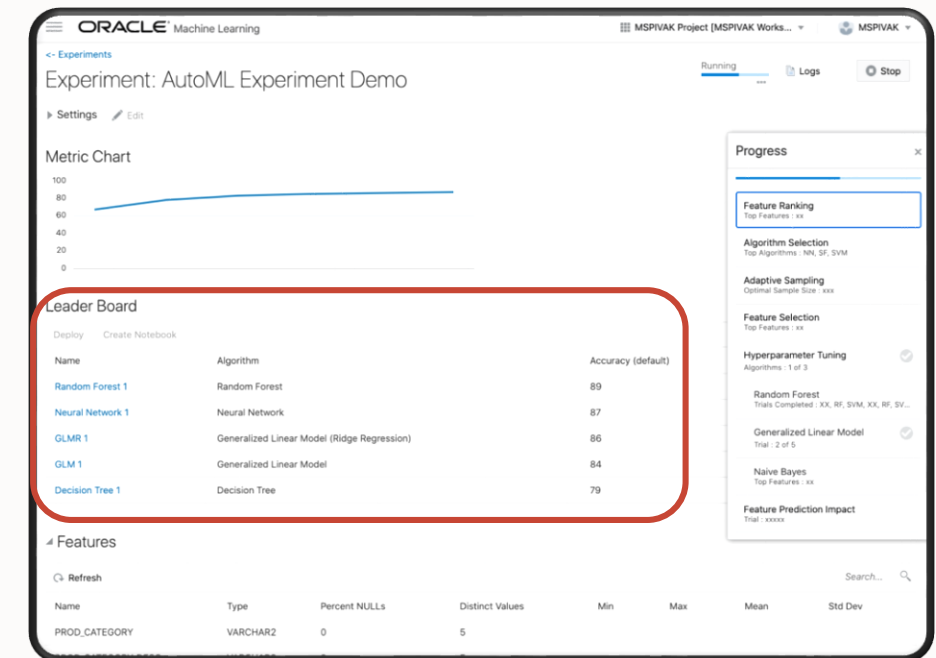
NEW support for Python and R

- Use Python, R, and SQL side-by-side
- Leverage database-native algorithms from Python and R



NEW SELF-SERVICE machine learning (AutoML)

- No-code user interface for creating, managing, and deploying ML models
- Based on Oracle Labs AutoML
- **Available shortly**



Multiple algorithms compared and best is selected

Self-Service Tools for LoB Developers

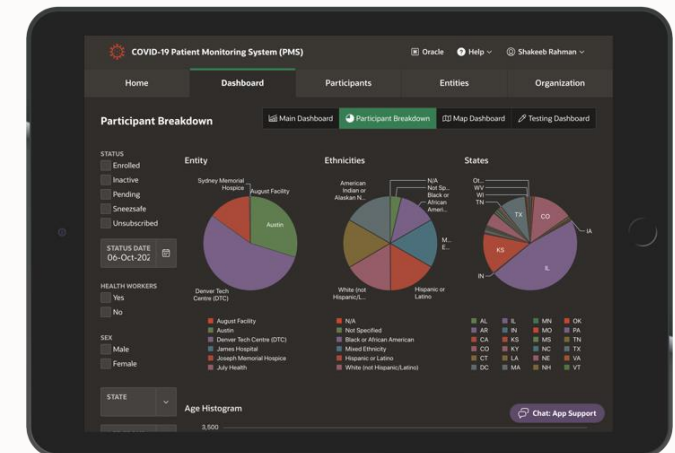
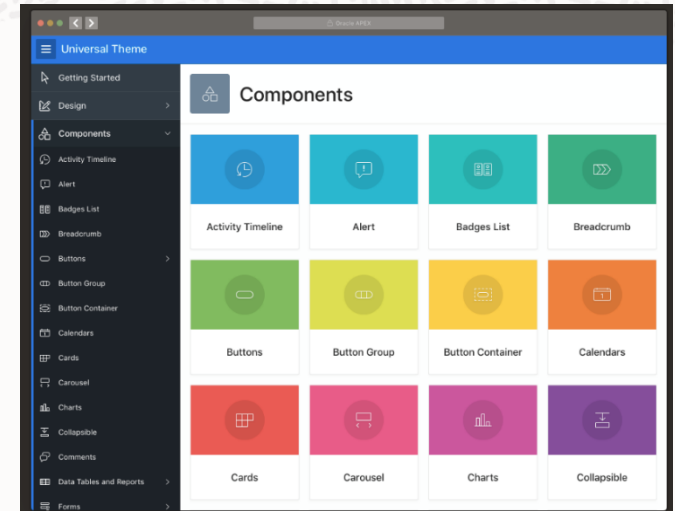
Modern tools to build data-driven apps fast with APEX

Built-in **Application Express (APEX)**

- Simple low-code web-based app development and execution
- Intuitive interface guides developers through creation of powerful apps
- Extensive library of pre-built components
 - Powerful components enable high-level of functionality with almost zero coding
- Eliminates 98% of hand coding

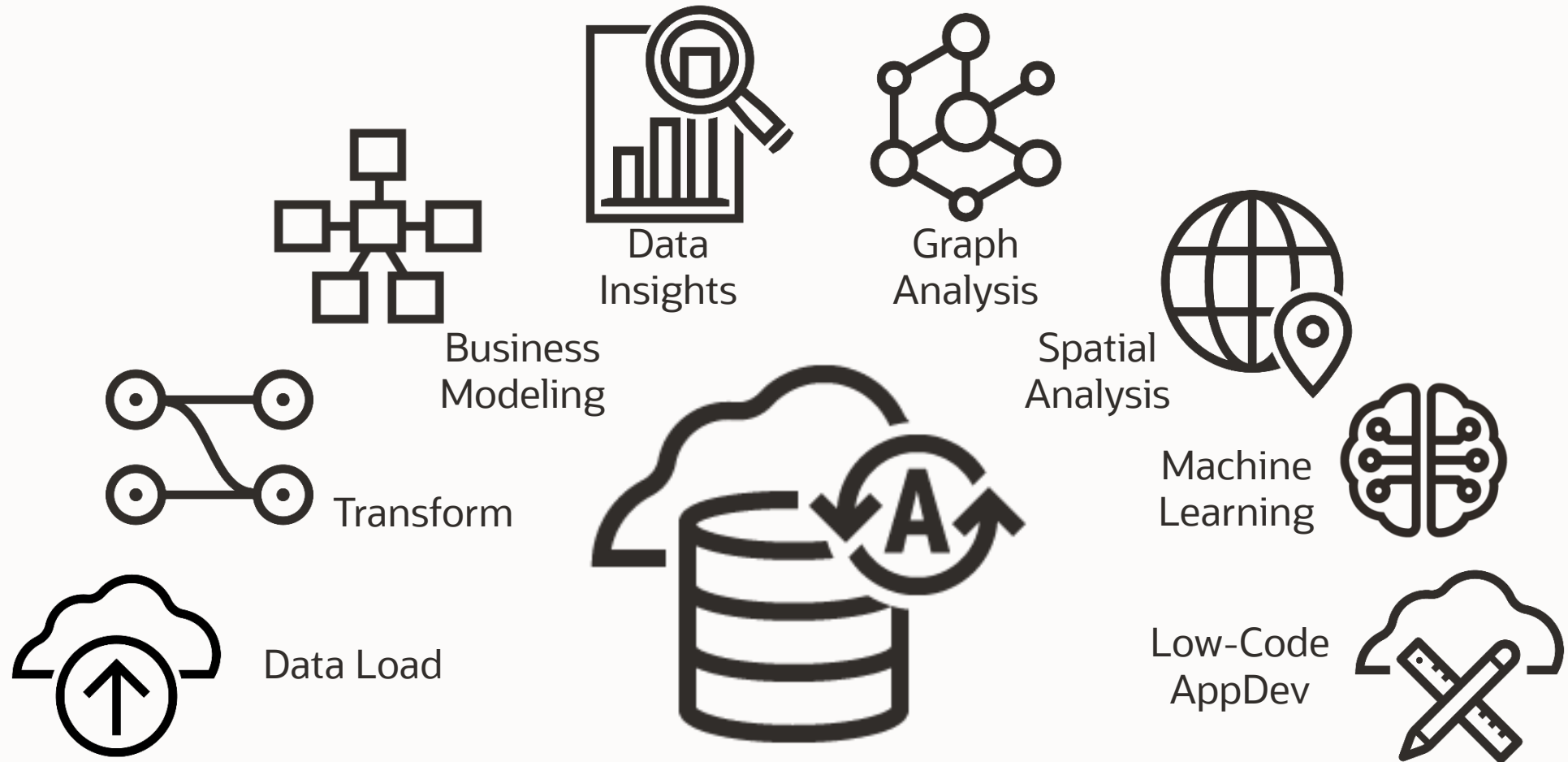
Built-in **REST Data Services (ORDS)**

- Makes database access from applications super simple by automatically building REST interfaces to database tables and procedures



Oracle Autonomous Database

Integrated cloud data service to empower business innovators



ORACLE