MODERN APP DEVELOPMENT WITH ORACLE REST DATA SERVICES

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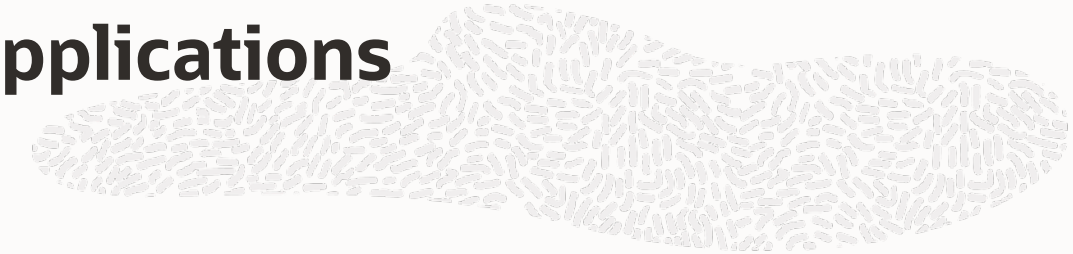
MICHIGAN ORACLE USERS SUMMIT 2020

MONDAY OCTOBER 26 – THURSDAY OCTOBER 29, 2020
VIRTUAL EVENT

Two Things Developers Need for Applications



1. **Modern Development environment**
   – spin up a database, get their latest source code, make changes, push to ‘production’
2. **Access to their data**
   – data is in the database, make it available to the application, easily

Agile, serverless development environments that lead to teams being able to innovate faster while reducing risk, faster timelines, and better, more stable and secure releases.

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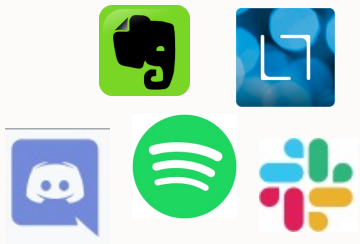

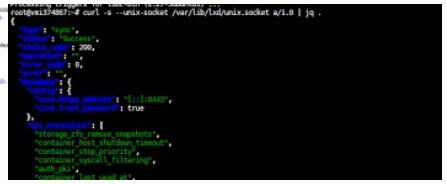

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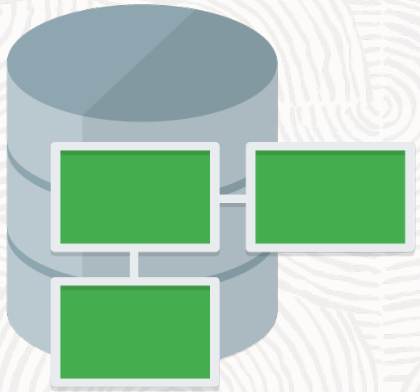
Oracle Database Developer Tools

SQL Developer



Data Modeler

ORDS

SQLcl

Database Actions

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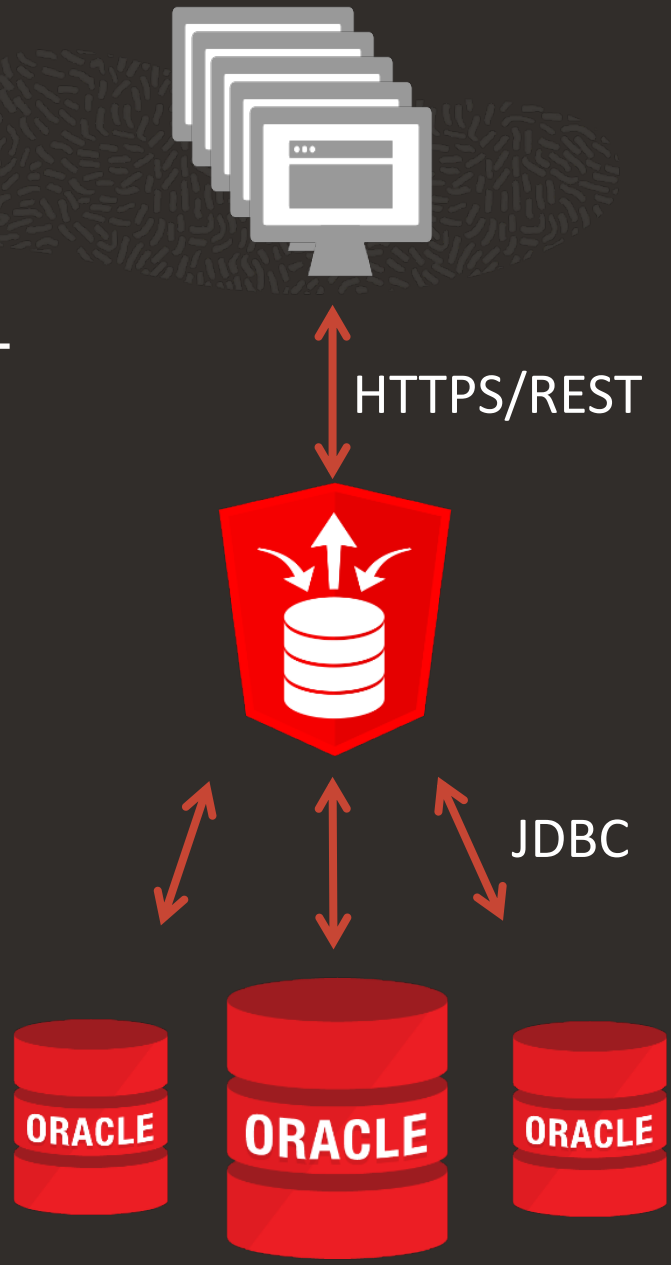
Oracle REST Data Services

REST Access to your Oracle Database

- Auto REST enable your data, tables, views, SQL, PL/SQL
- HTTPS for secure communications
- Defined/controlled via schema
- Full developer support (GUI, CLI, API)
- Document Store (SODA for REST)
- Microservices for your Oracle Database
- Database Management REST APIs
- Core feature of Autonomous & available for any Oracle Database
- Batch Loading of data via REST



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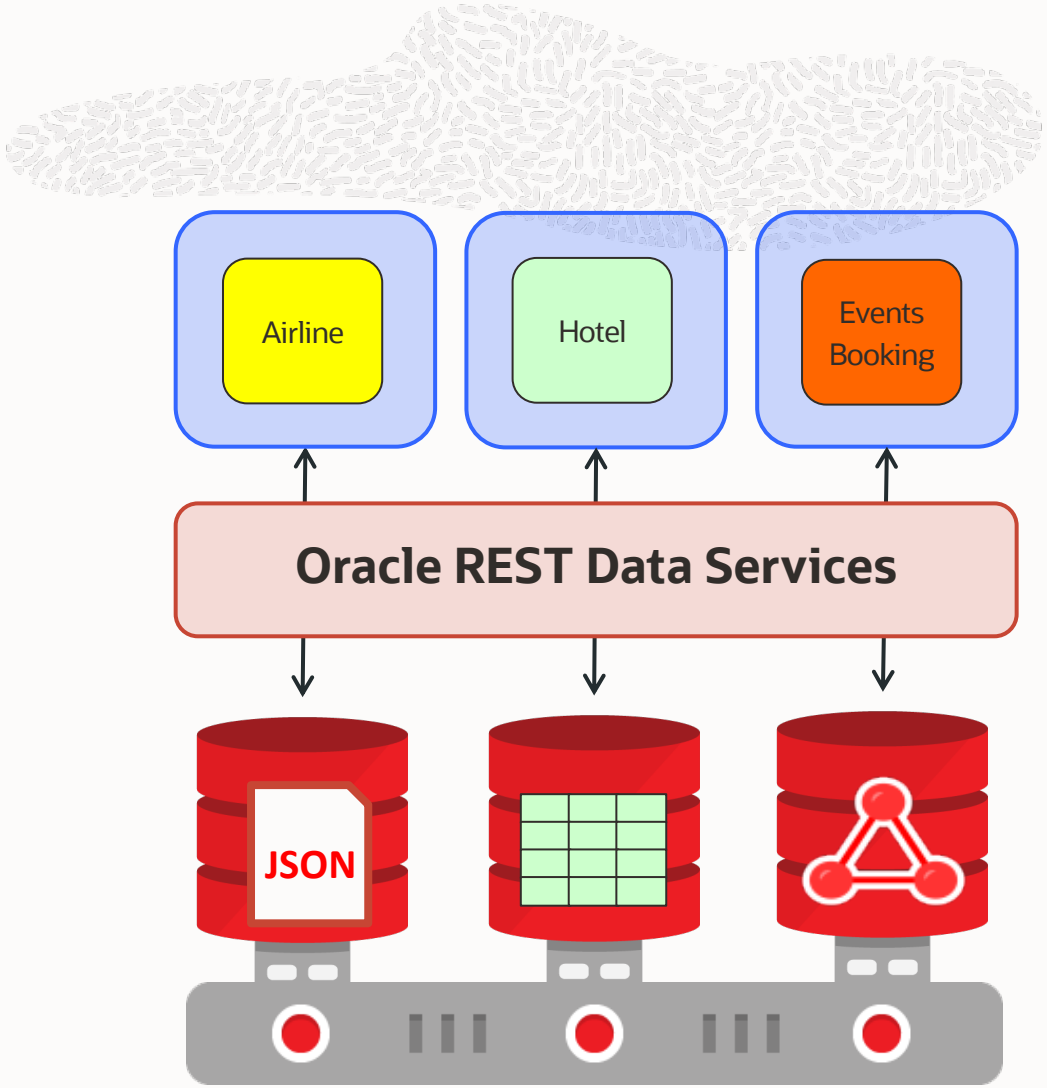
Microservices for your Oracle Database

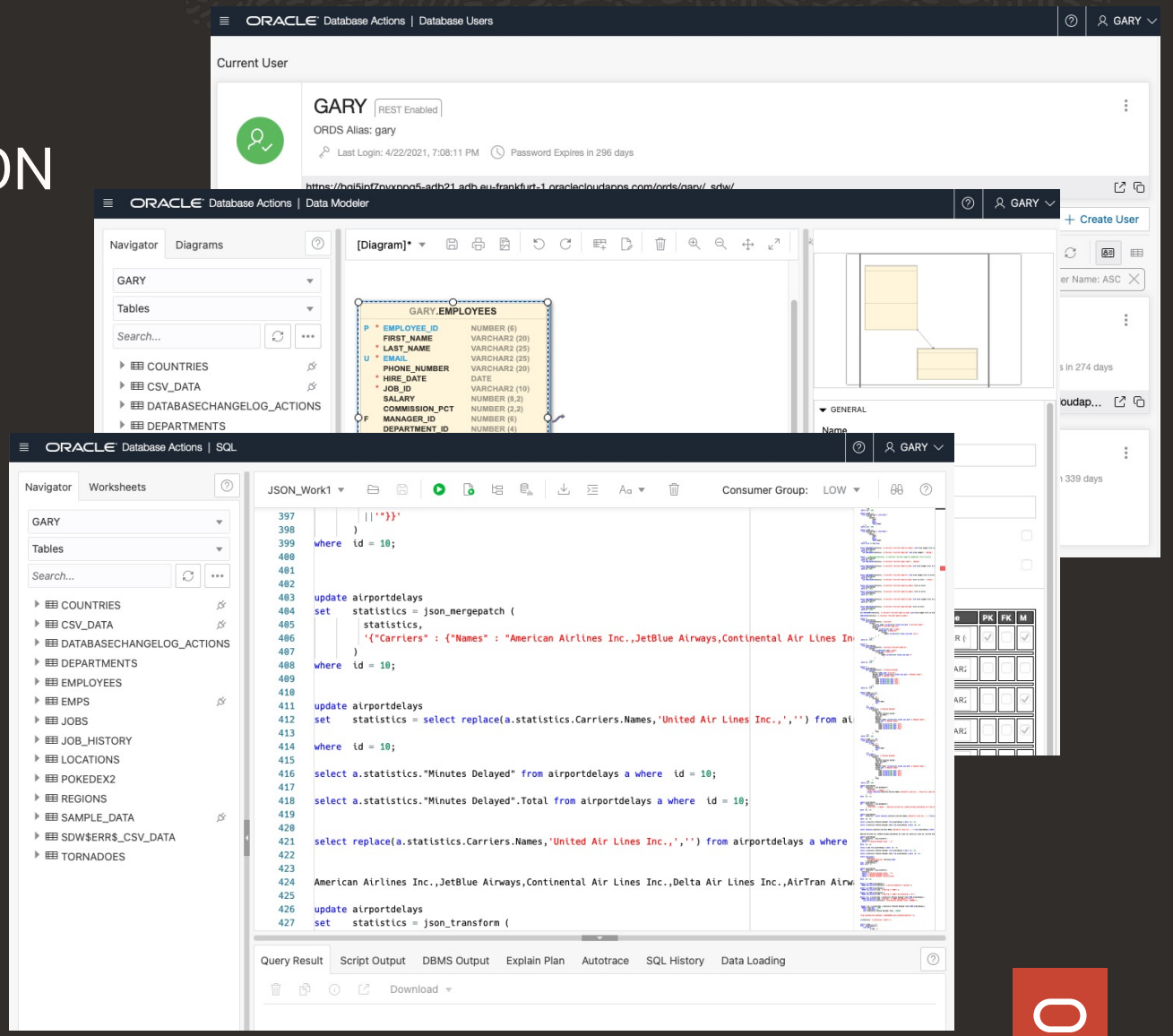
- Expose tables, views, business logic (PL/SQL) as REST endpoints
- Available over HTTPS with OAuth2
- Services return JSON to the client/app
- Data in the database can be relational, JSON, unstructured…you name it



Database Actions

Development and Database Management in a Browser

- SQL Developer, in the browser
- Load data - excel, csv, avro, xml, JSON
- Run SQL statements & scripts
- Monitor and manage your DB
- Schema diagramming
- REST development interface
- JSON Document Store (SODA)
- User Management
- Charts and Dashboards
- Available in the cloud or on-premises



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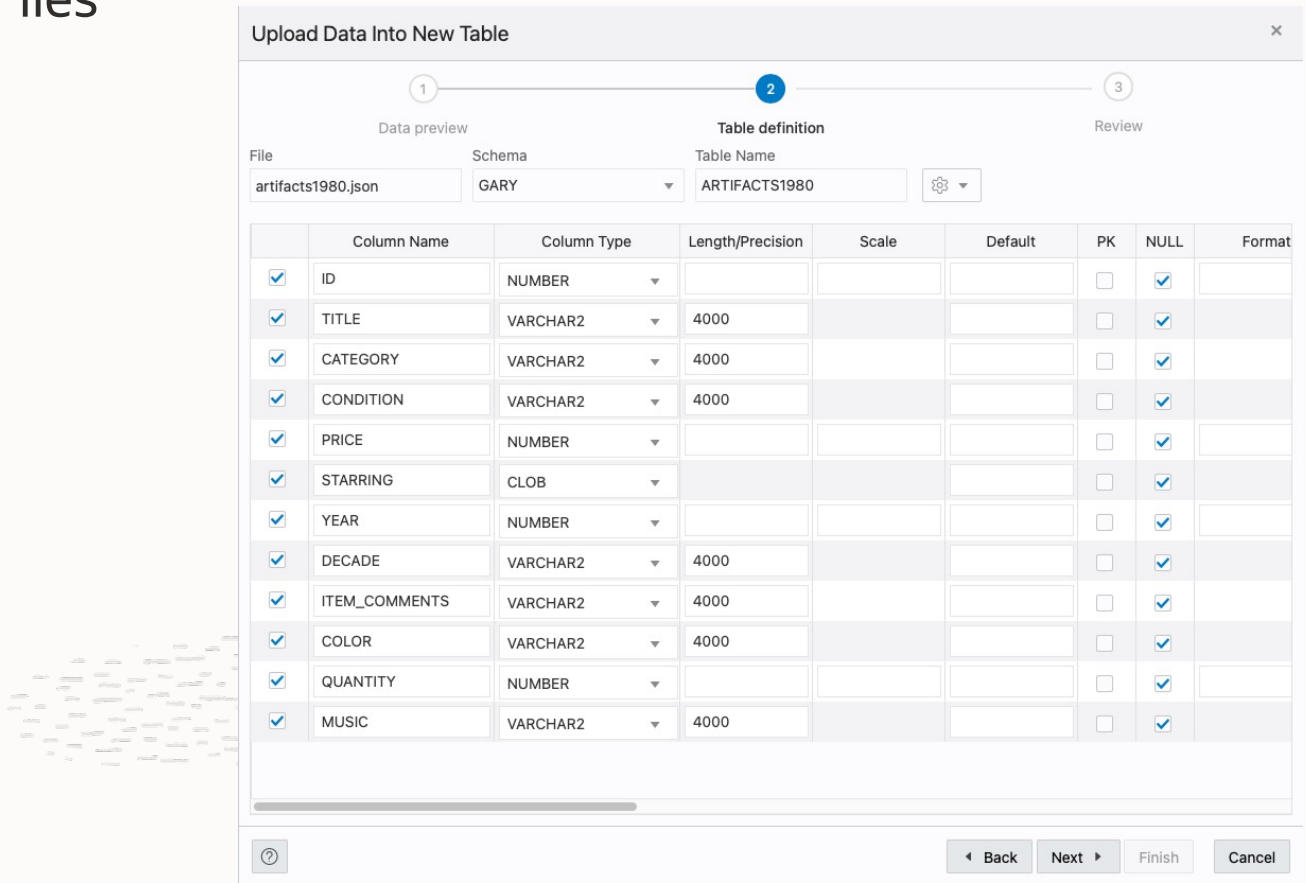
Importing Local Files with Database Actions

- Drag and Drop User Interaction
- CSV, Delimited, Excel, JSON, & AVRO Files
- Import Wizard
- Mapped to relational table columns
- Automatically creates a new table
- Auto-REST Enable a table



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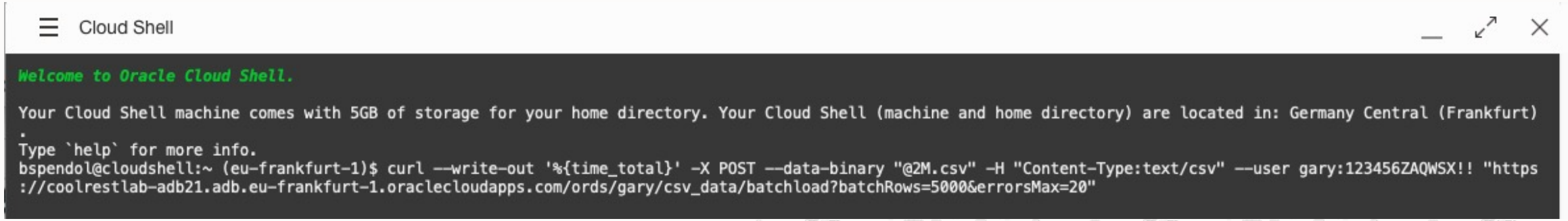
Batch Loading Data Files via REST

- No Coding needed
- Atomically enabled via auto-REST
- Batch Load CSV files – millions at a time
- Use SODA for REST to batch load JSON Documents
- Secure and publish for application development



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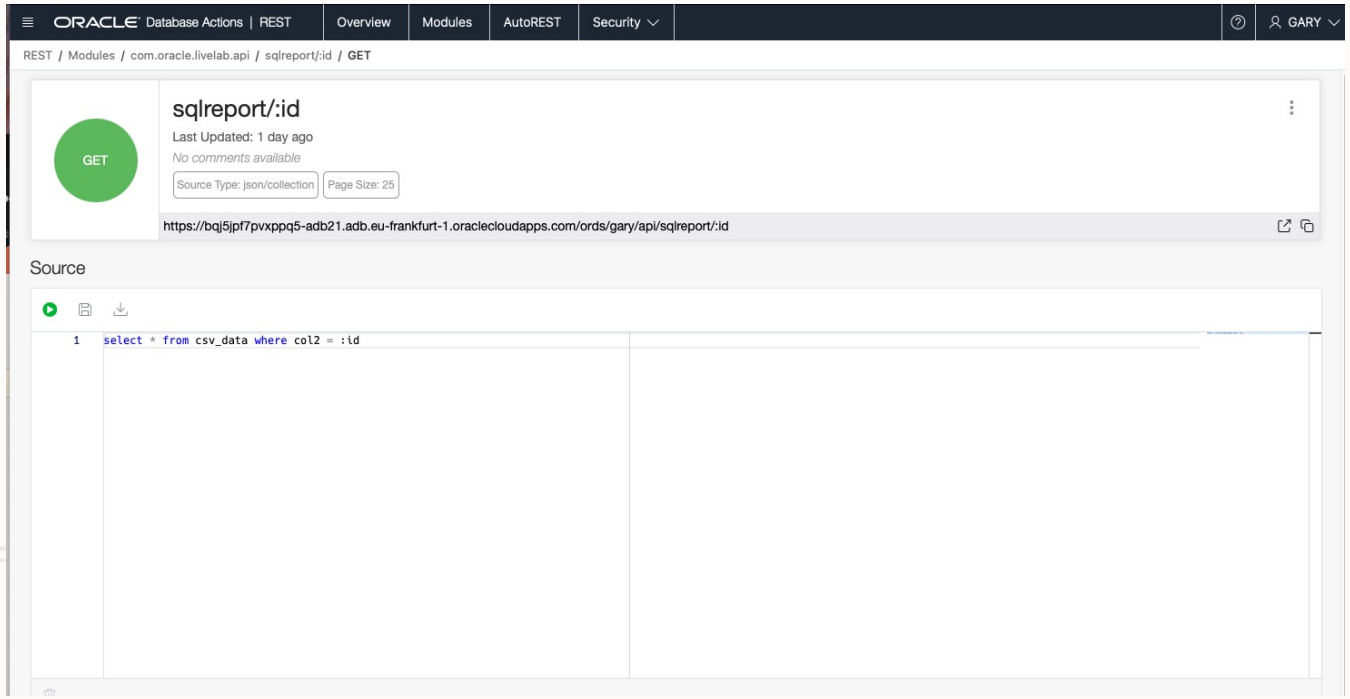
Create and Secure RESTful Web Services

- No Code, Simple browser-based development
- Customer supplied SQL or PL/SQL
- GET/PUT/POST/DELETE data
- Secured with OAuth2 or DB Auth
- Auto-REST enable



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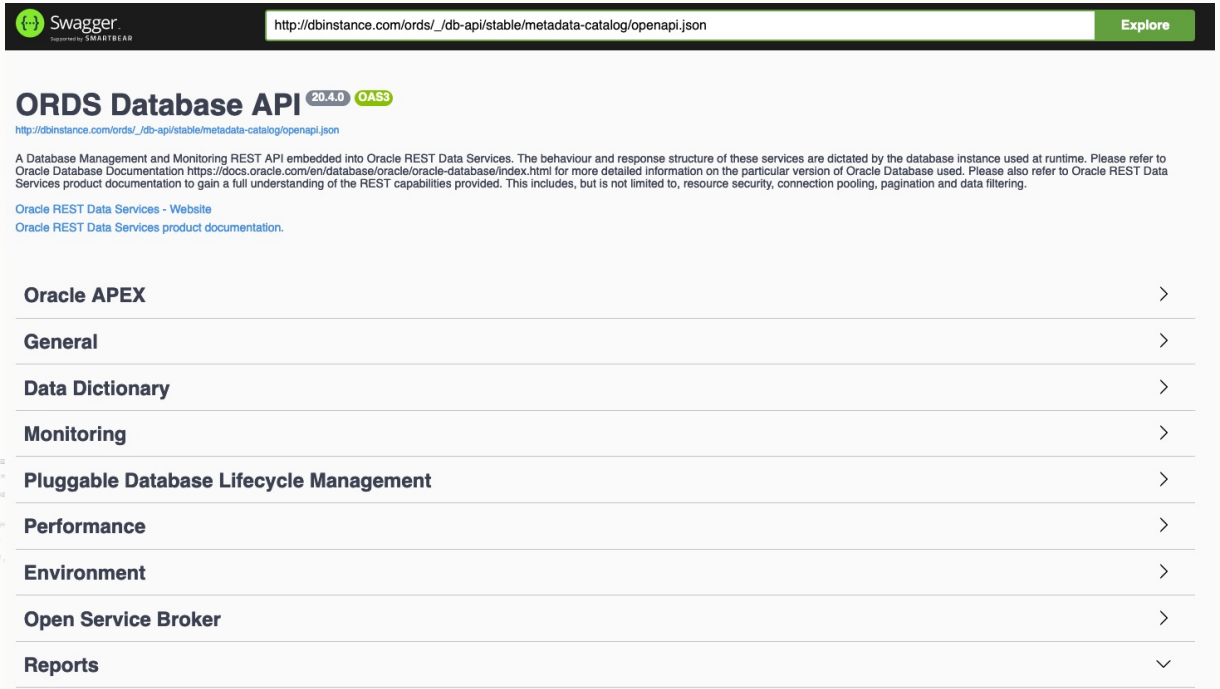
Database Management APIs

Use HTTPS to manage and monitor your Oracle Databases

- Supports 11gR2, 12, 18, 19c and 21c
- General, Data Dictionary, Monitoring, Performance, & PDB Lifecycle Management
- Automatic – no code to write, just enable and use it



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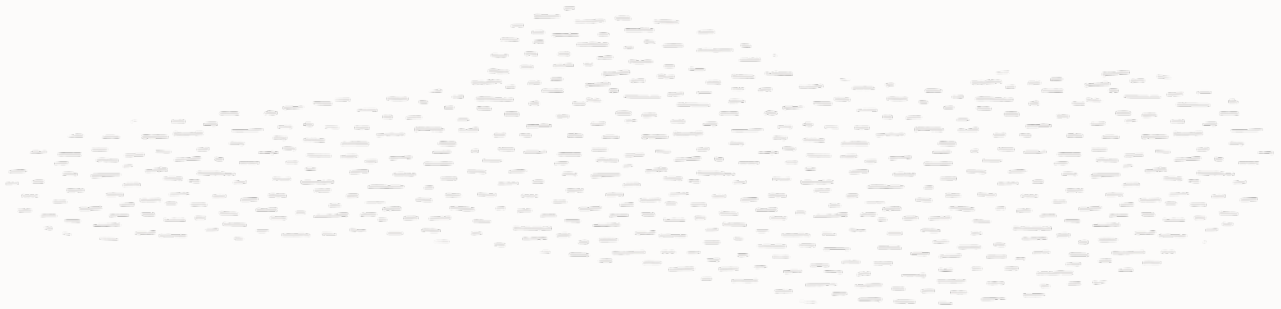
Modern App Dev with Oracle REST Data Services LiveLab

- **Lab 1**: Create your Autonomous Database
- **Lab 2**: Connect to your Autonomous Database using SQL Developer Web
- **Lab 3**: User Setups
- **Lab 4**: Create and Auto-REST enable a table
- **Lab 5**: Load data and create business logic in the database
- **Lab 6**: REST enable tables and business logic
- **Lab 7**: Securing the REST endpoints

Next Steps

- Modern App Dev with Oracle REST Data Services Hand on Lab
- Choose your Own JSON Adventure: Relational or Document Store
- oracle.com/rest
- Oracle DB Dev Tools on github
- Oracle DB Dev Tools Discord Server
- @btspendo and @thatjeffsmith



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SAVE THE DATE

- OATUG Forum Live

  December 7-11, 2021

  Virtual Event

  https://forum.oatug.org

- MOUS 2022

  October 27, 2022

  Schoolcraft College - VisTaTech Center,

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- Session Surveys

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