OAC: ML & AI Features and Integration

Edelweiss Kammermann

THE GLOBAL REACH OF IT CONVERGENCE

20+
YEARS

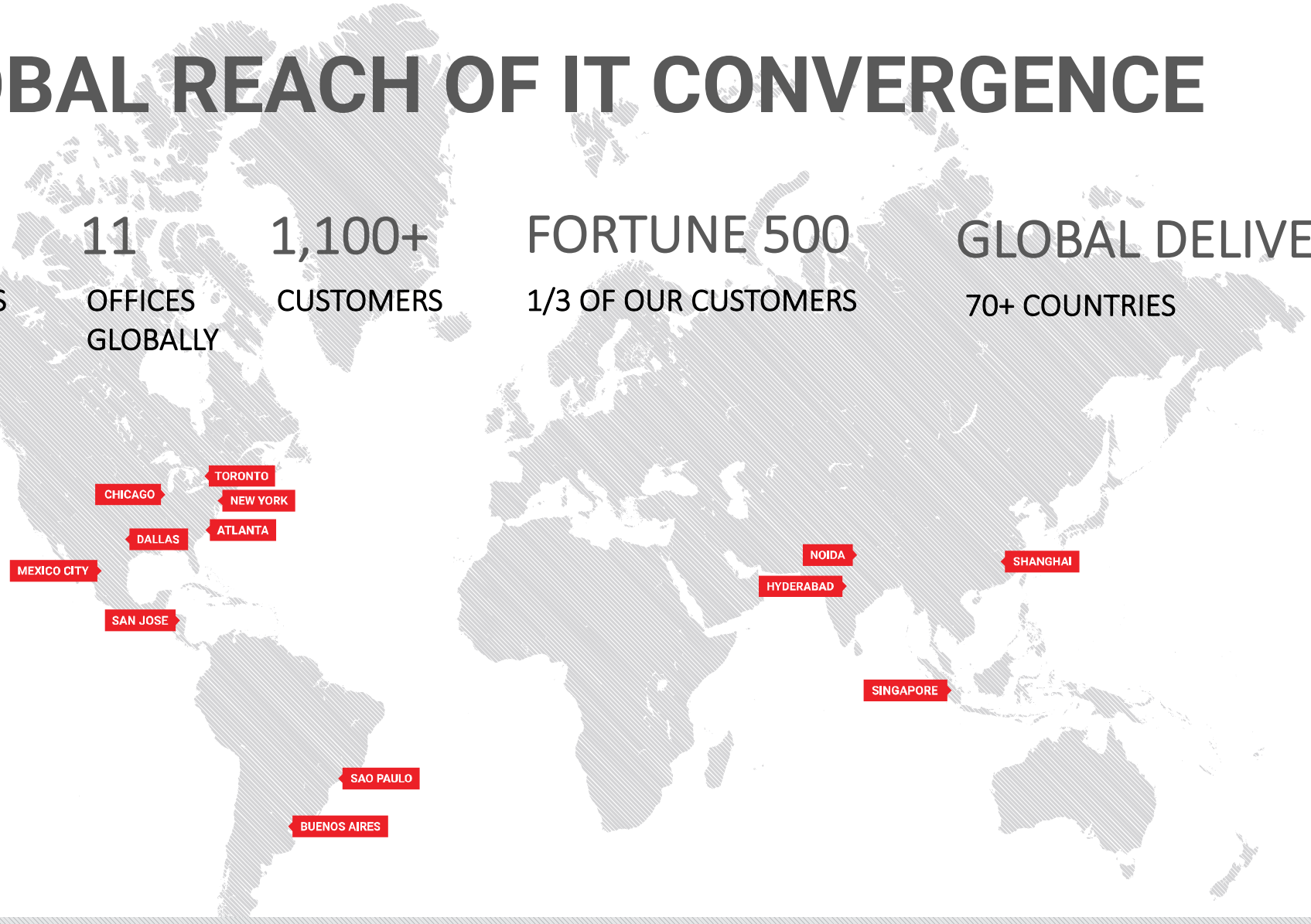
600+
EMPLOYEES

11
OFFICES GLOBALLY

1,100+
CUSTOMERS

FORTUNE 500
1/3 OF OUR CUSTOMERS

GLOBAL DELIVERY
70+ COUNTRIES



ONSHORE, NEARSHORE AND OFFSHORE PRESENCE

ONSHORE

Chicago, Dallas and Atlanta
Clients Sites

NEARSHORE

Buenos Aires, Argentina

OFFSHORE

Hyderabad, India

Edelweiss Kammermann, Director – AI & Machine Learning

- Analytics, Data Integration & Machine Learning specialist with over 20 years of consulting and project management experience.
- Oracle ACE Director
- Speaker at international conferences: Oracle Open World, Oracle Code, Collaborate, OTN Tour LA, UKOUG Tech & Apps, Analytics and Data Summit, etc.
- Co-founder and VP of Uruguayan Oracle User Group (UYOUG), Director of Education (Latin America Oracle User Community) & Board Member of Analytics and Data Oracle User Community

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ORACLE ACE Director

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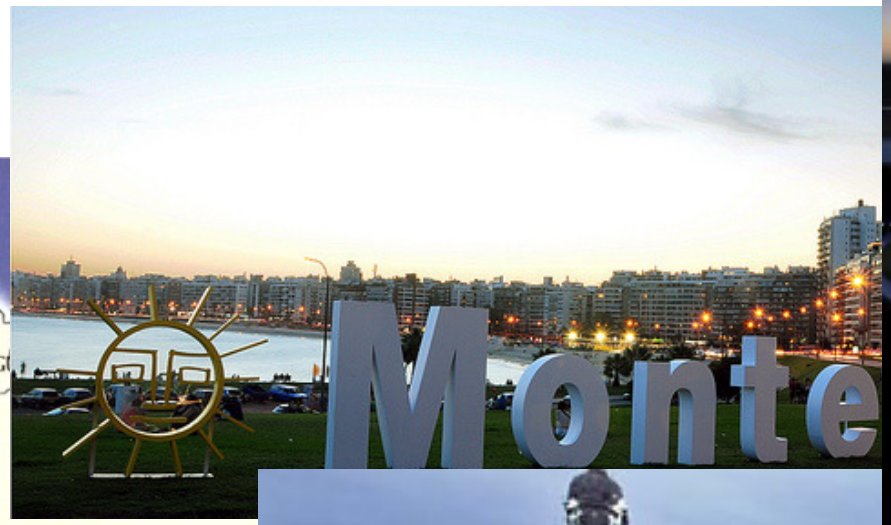
Monte

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March 14-16, 2023

Oracle Conference Center

Redwood Shores, California

Call for abstracts is open!

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Augmented Analytics : What is it & Why it is important?

- Empower Business with AI and Data Driven Insights
  - Faster & more accurate insights
  - Brings value to the business
  - Reduce analysis time
  - Be ahead of the competition

OAC Solution for All Users

- Consumer Users
- Business Users – Author – no familiar with the data set
- Super Users – Author with analytics experience
- Data Scientist – BI Developer

Augmented Analytics in OAC

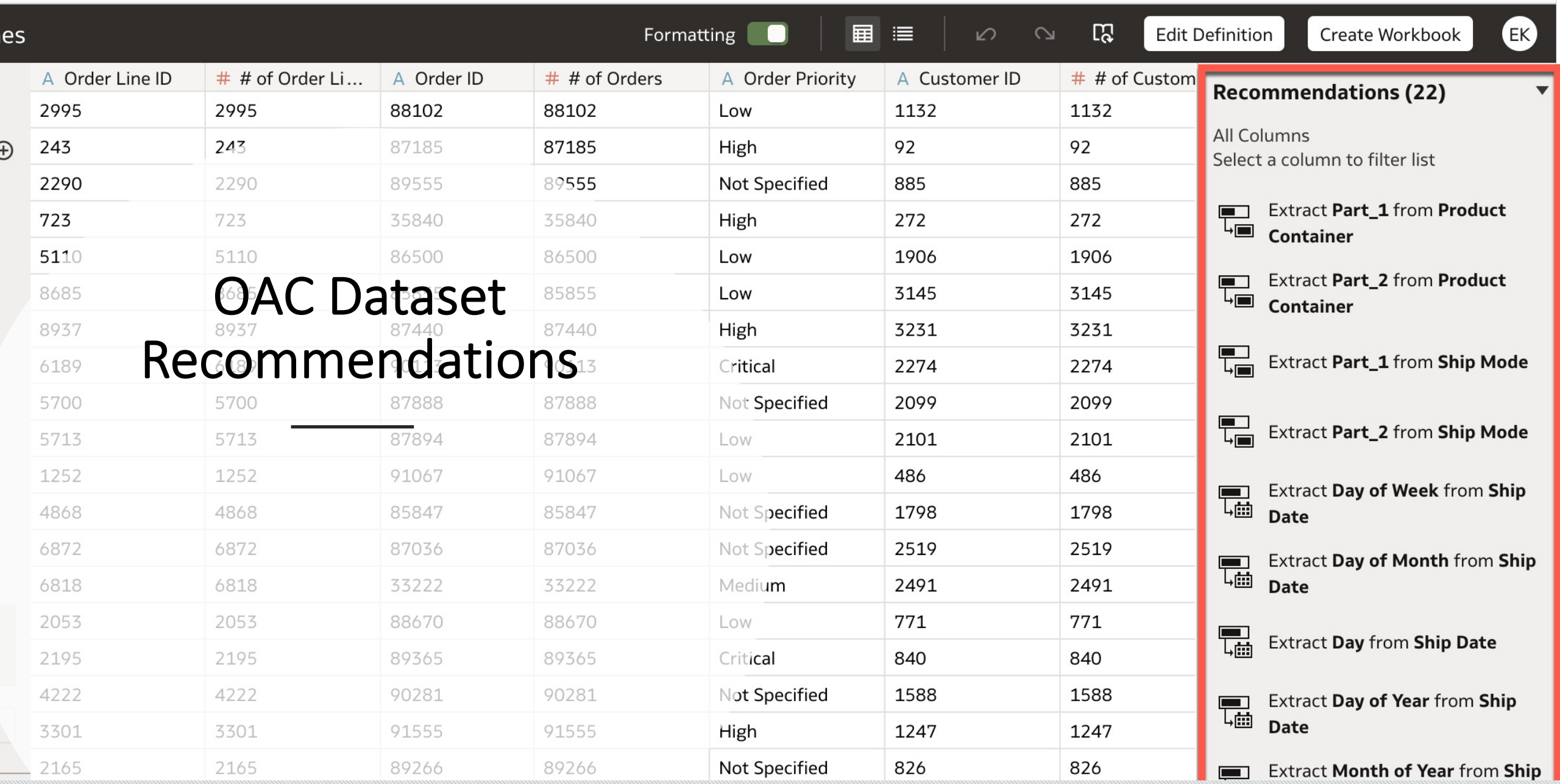
DATASET RECOMMENDATIONS

ANALYTICS FUNCTIONS

LANGUAGE NARRATIVE

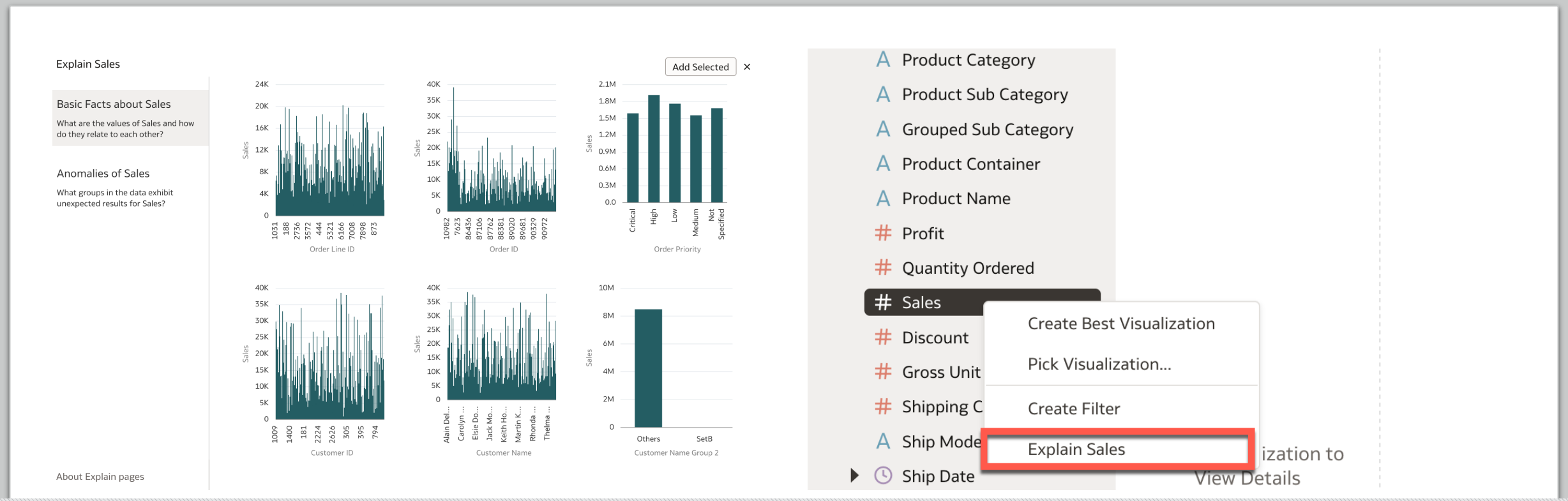
EXPLAIN FEATURE

AUTO INSIGHTS

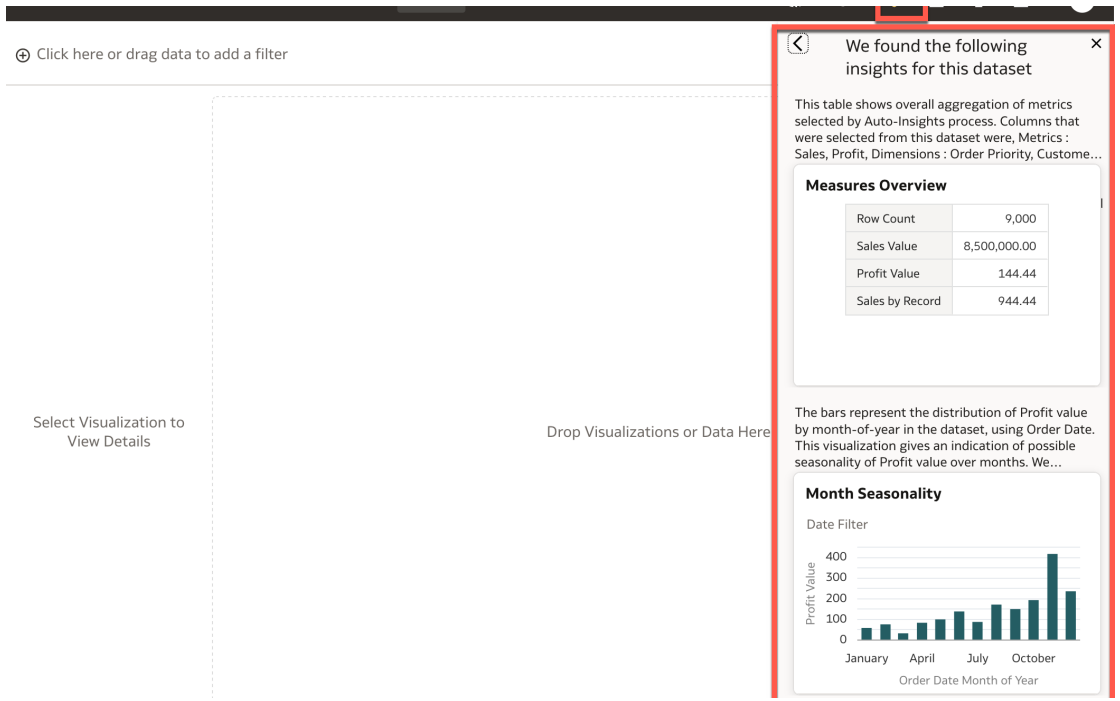


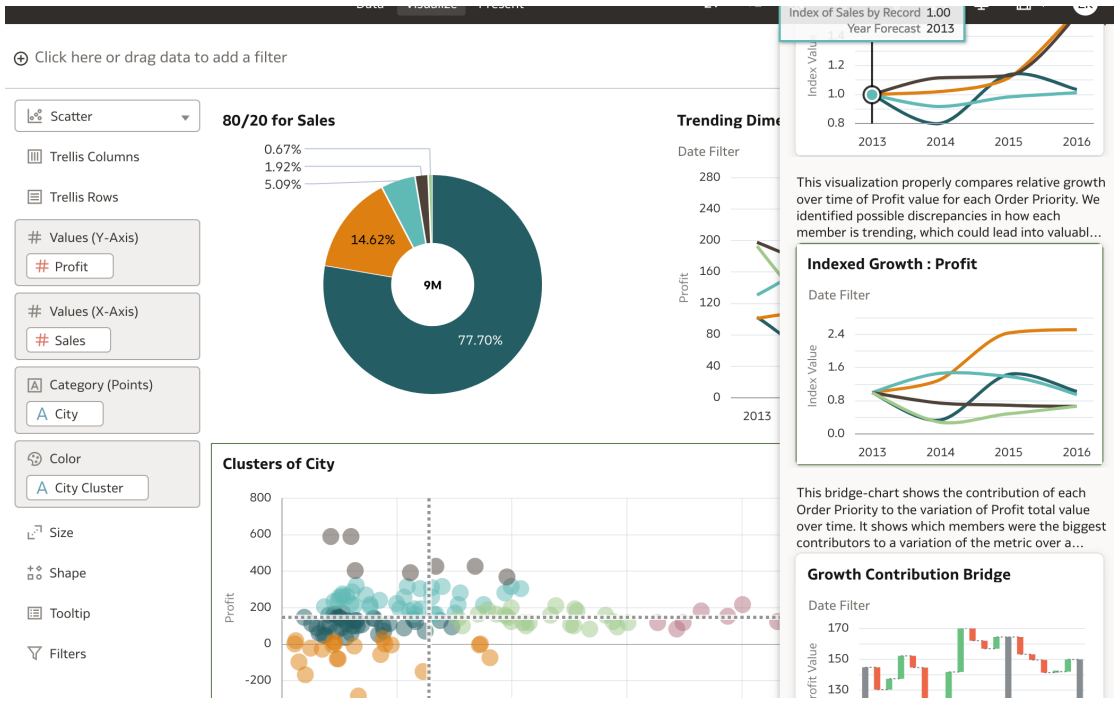
OAC Dataset Recommendations

OAC Explain Feature

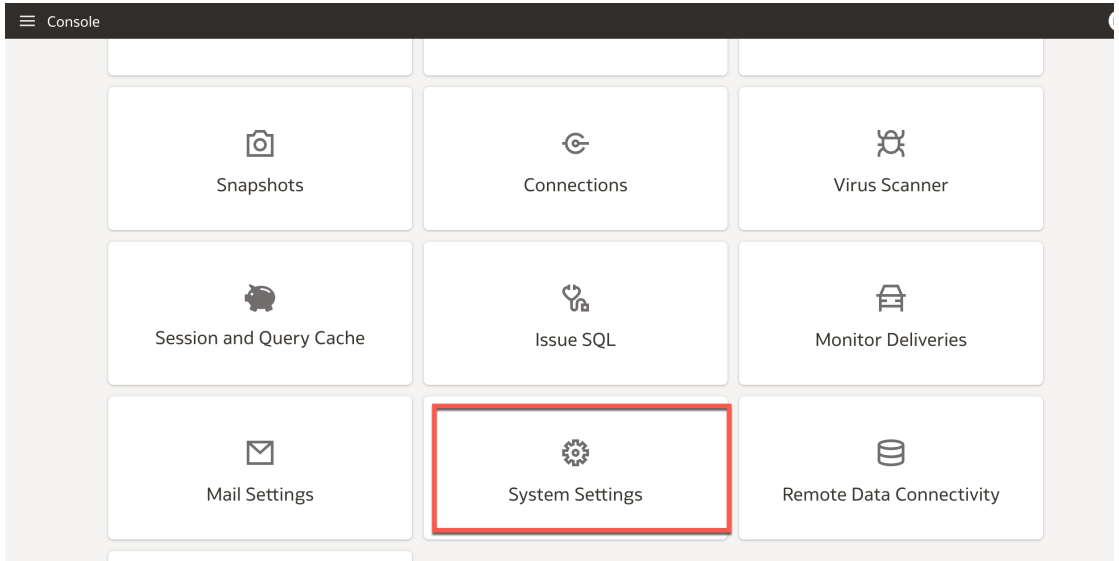


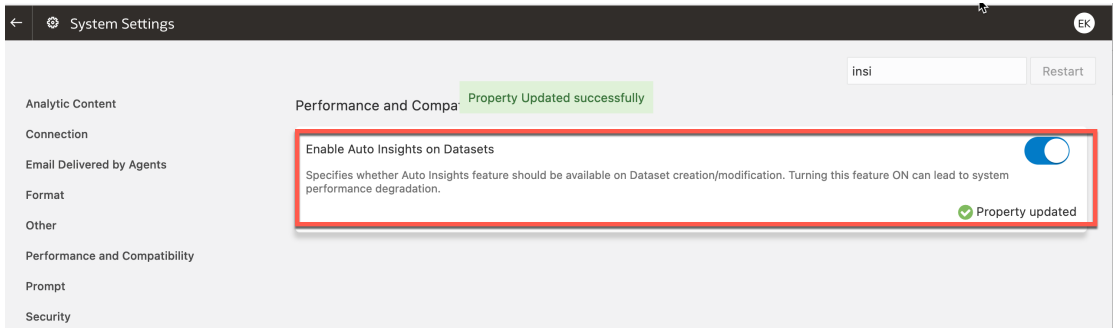
OAC Auto Insights in Datasets



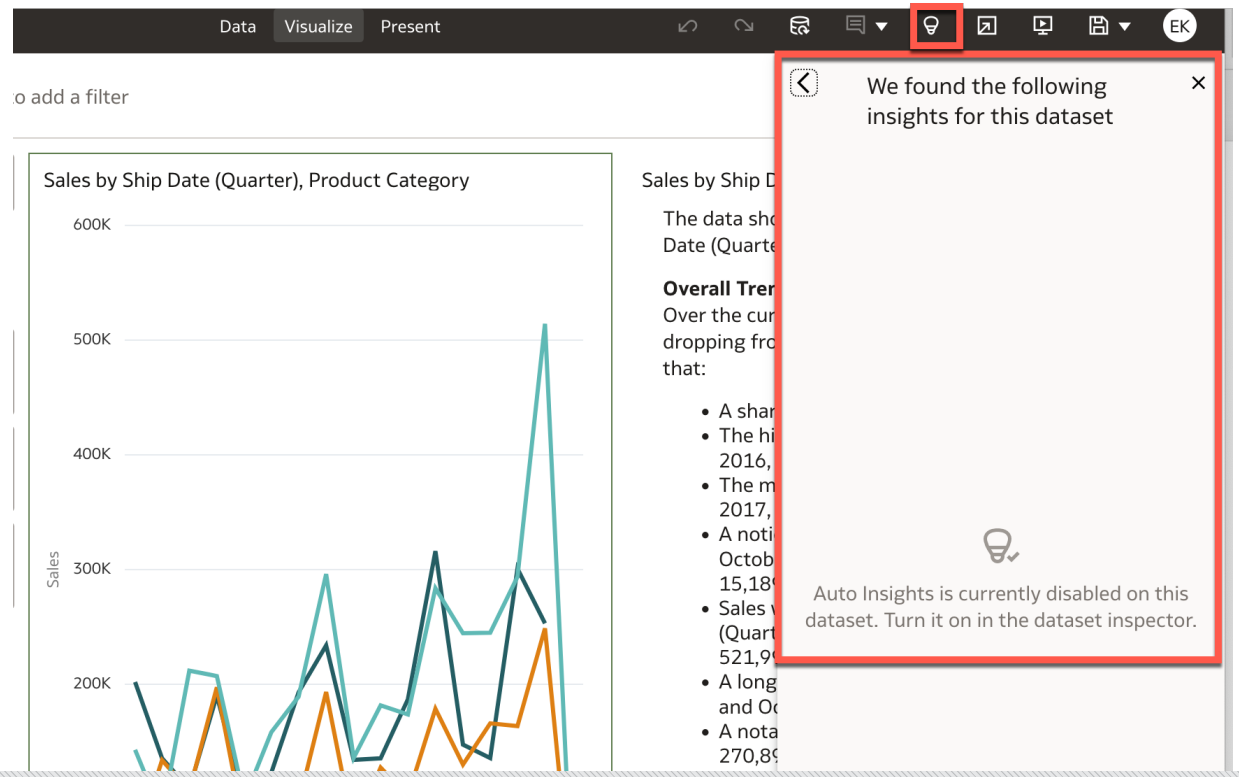


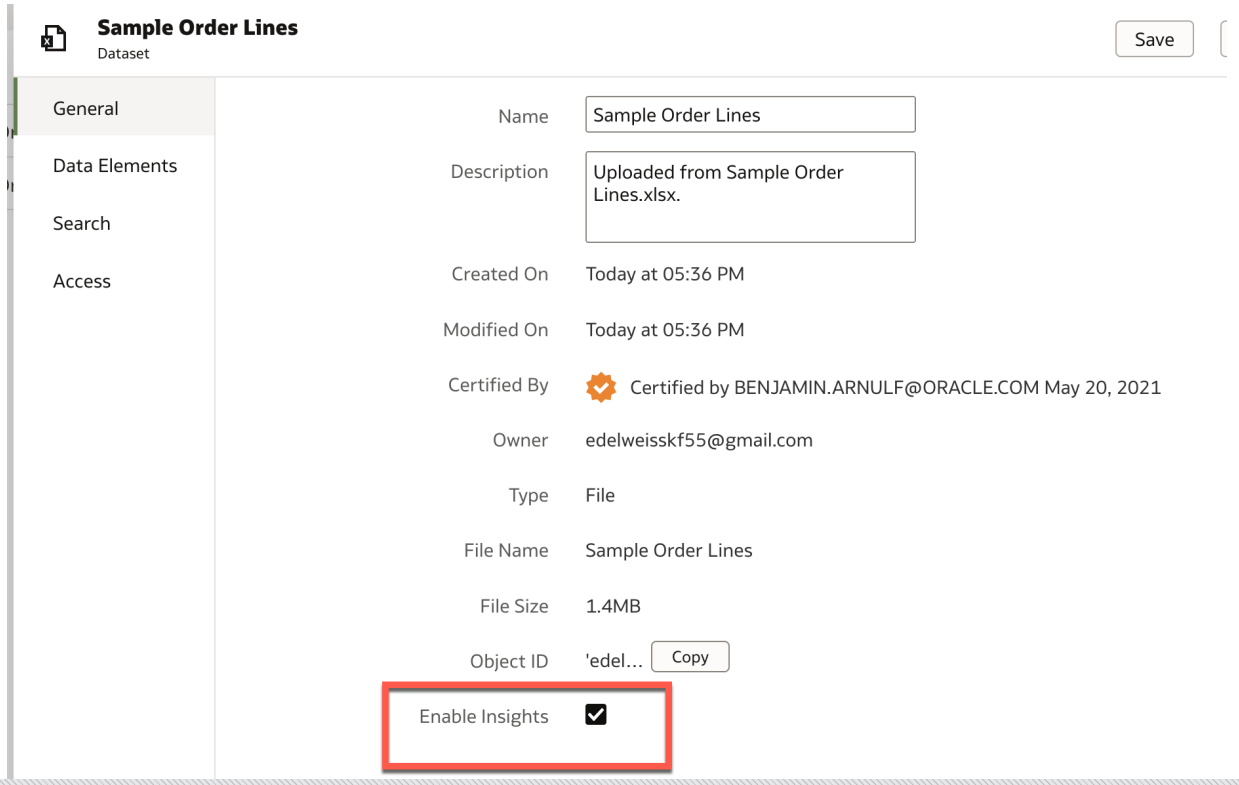
Enabling OAC Auto Insights



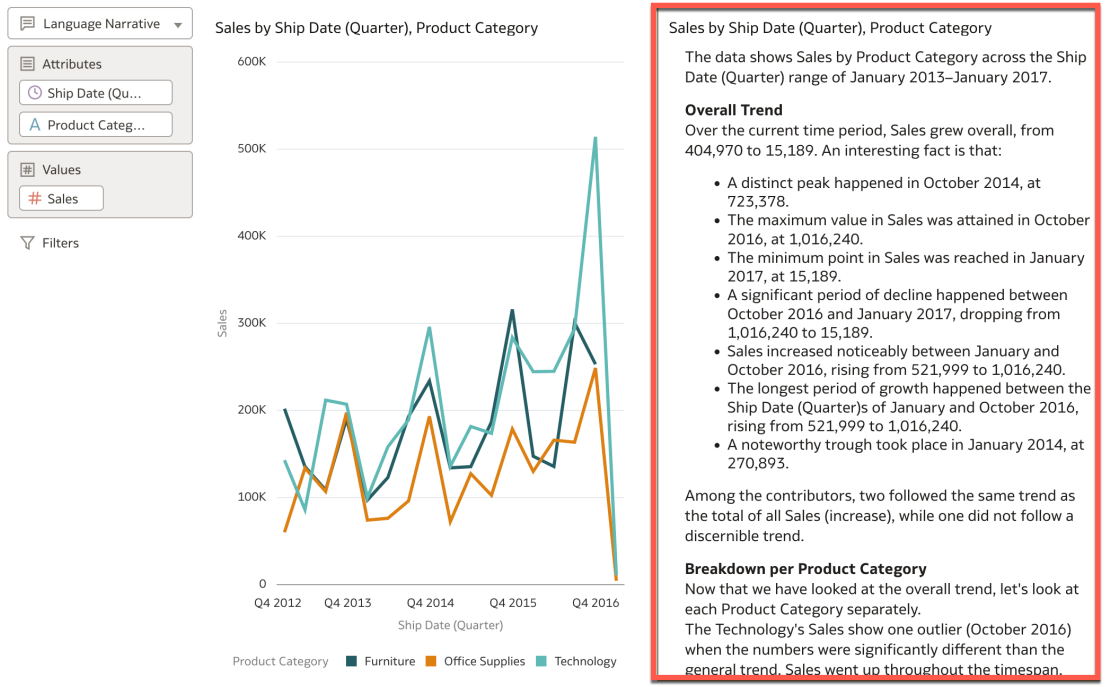


Enabling OAC Auto Insights On Existing Datasets





OAC Language Narrative Data Visualization



Sales by Ship Date (Quarter), Product Category

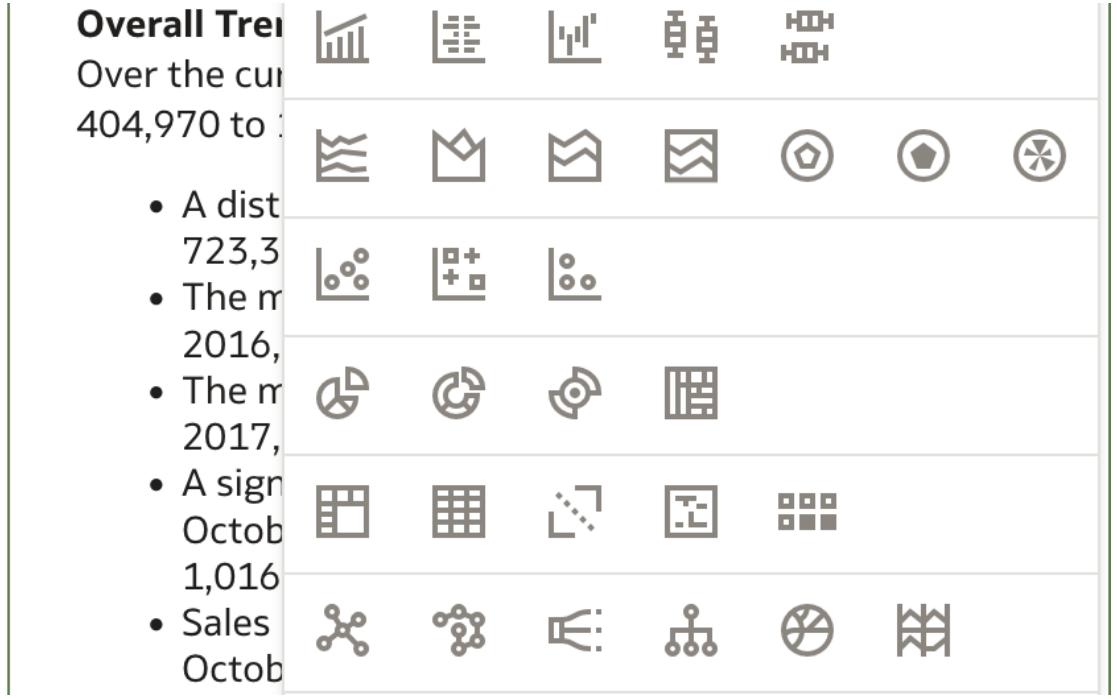
The data shows Sales by Product Category across the Ship Date (Quarter) range of January 2013–January 2017.

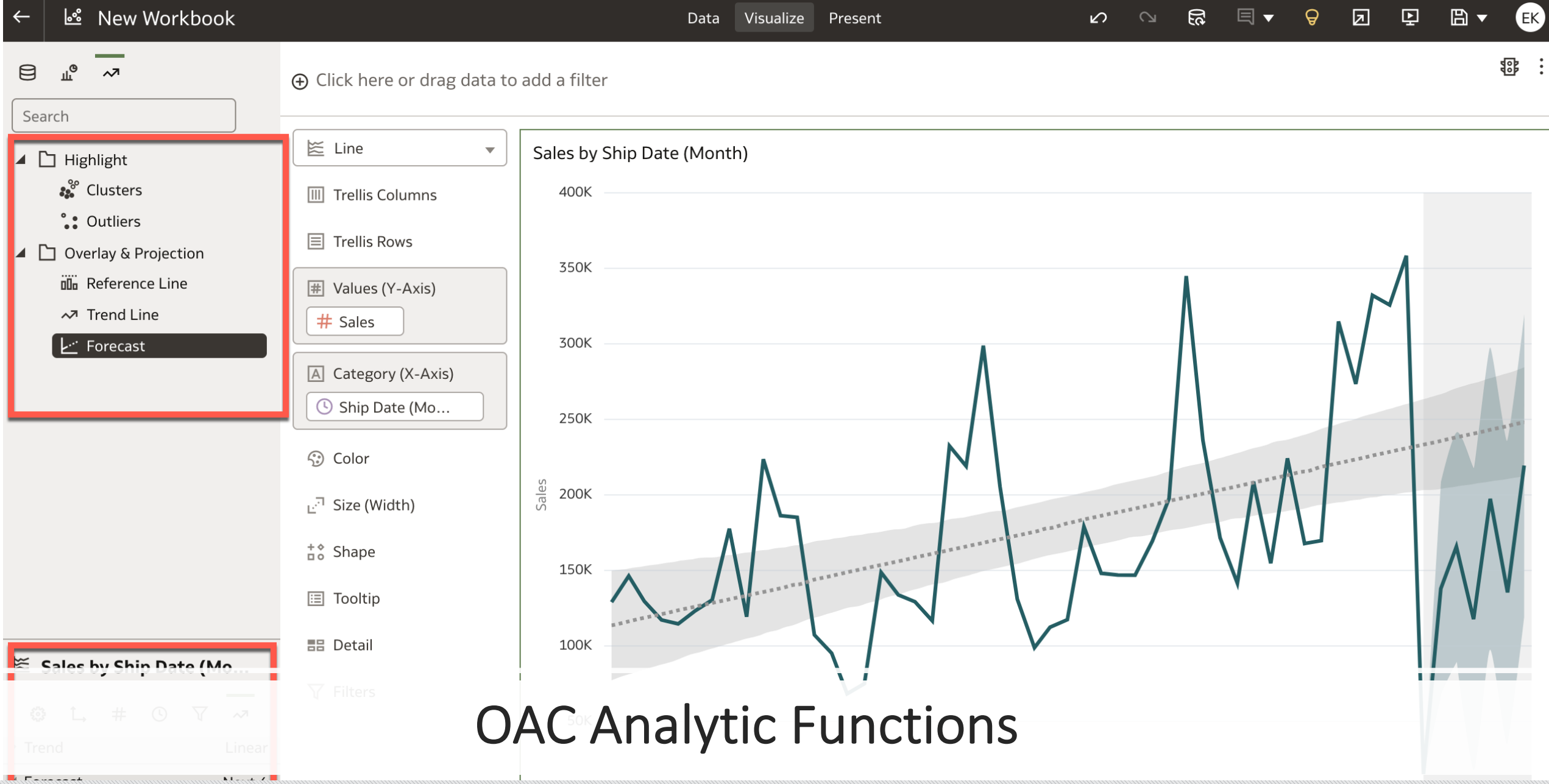
Overall Trend
Over the current time period, Sales grew overall, from 404,970 to 15,189. An interesting fact is that:

- A distinct peak happened in October 2014, at 723,378.
- The maximum value in Sales was attained in October 2016, at 1,016,240.
- The minimum point in Sales was reached in January 2017, at 15,189.
- A significant period of decline happened between October 2016 and January 2017, dropping from 1,016,240 to 15,189.
- Sales increased noticeably between January and October 2016, rising from 521,999 to 1,016,240.
- The longest period of growth happened between the Ship Date (Quarter)s of January and October 2016, rising from 521,999 to 1,016,240.
- A noteworthy trough took place in January 2014, at 270,893.

Among the contributors, two followed the same trend as the total of all Sales (increase), while one did not follow a discernible trend.

Breakdown per Product Category
Now that we have looked at the overall trend, let's look at each Product Category separately.
The Technology's Sales show one outlier (October 2016) when the numbers were significantly different than the general trend. Sales went up throughout the timespan.





OAC Analytic Functions

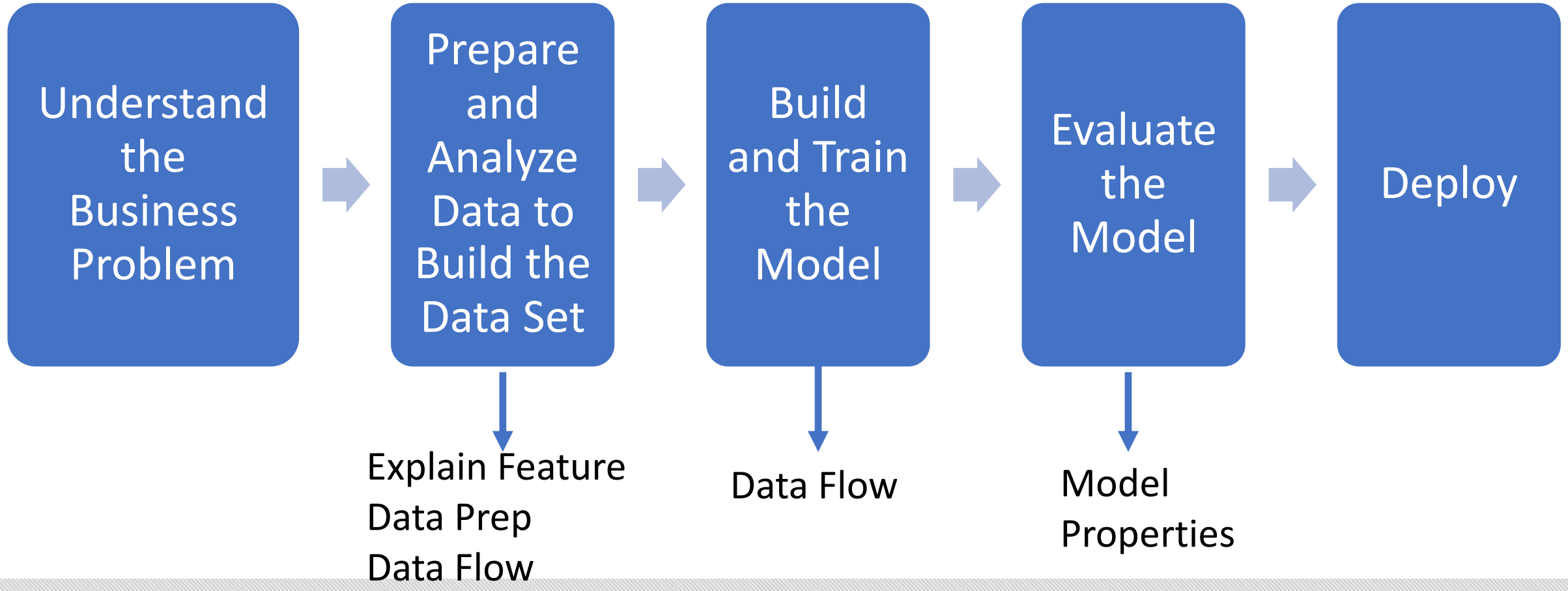
OAC Machine Learning & Advanced Analytics

OAC MACHINE LEARNING

DATABASE ANALYTICS

GRAPH ANALYTICS

OAC Machine Learning Process

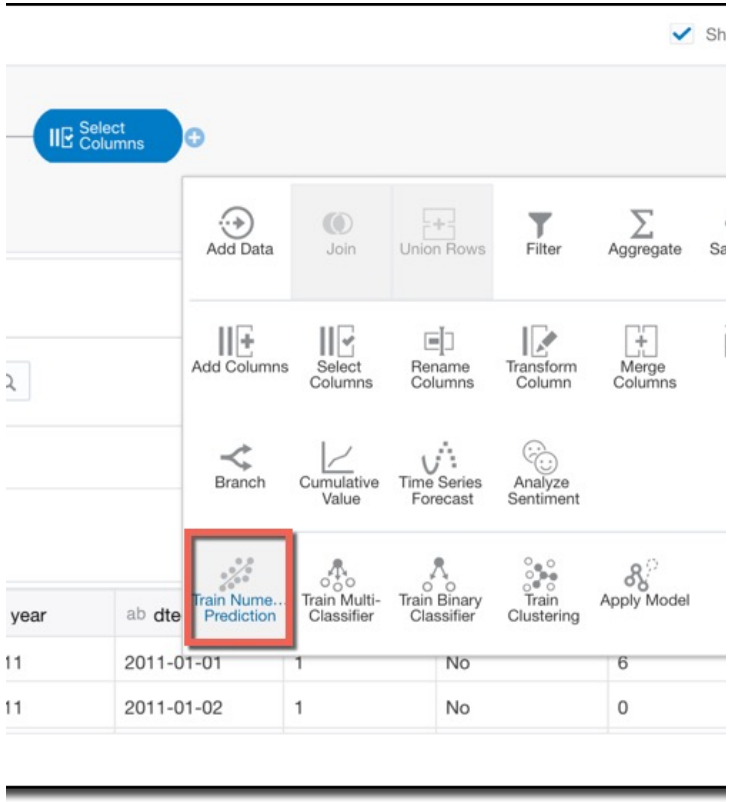


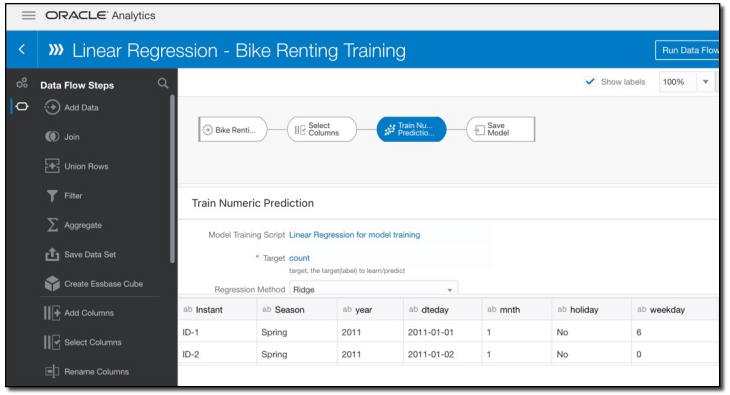
OAC Machine Learning Process

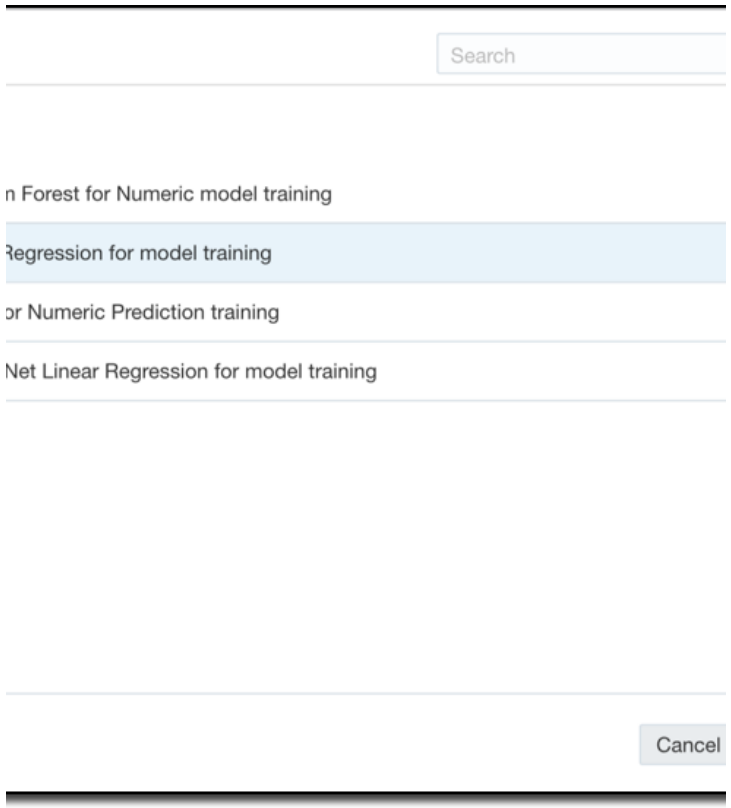
- **Supervised**
  - Numeric Prediction: Rental Bike Sales Prediction
  - Multi Classifier: Heart Disease prediction
  - Binary Classification: Attrition Prediction

- **Unsupervised**
  - Clustering: grouping customers by purchasing behavior.

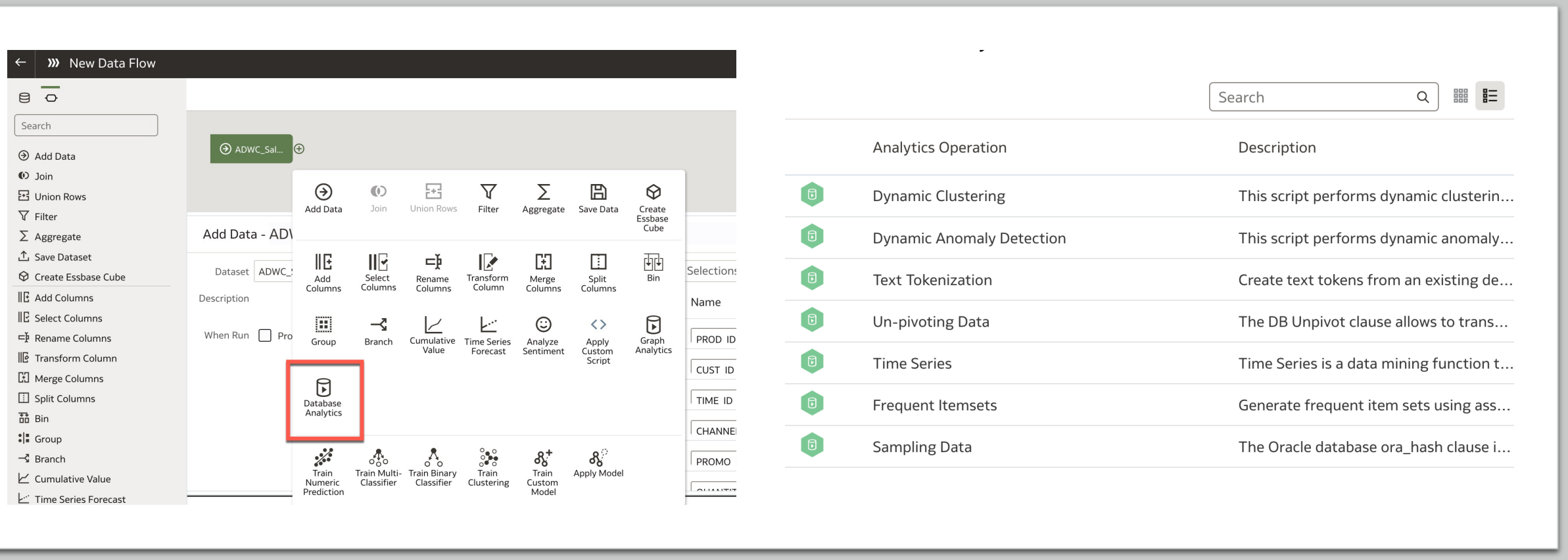
- **Reinforcement**



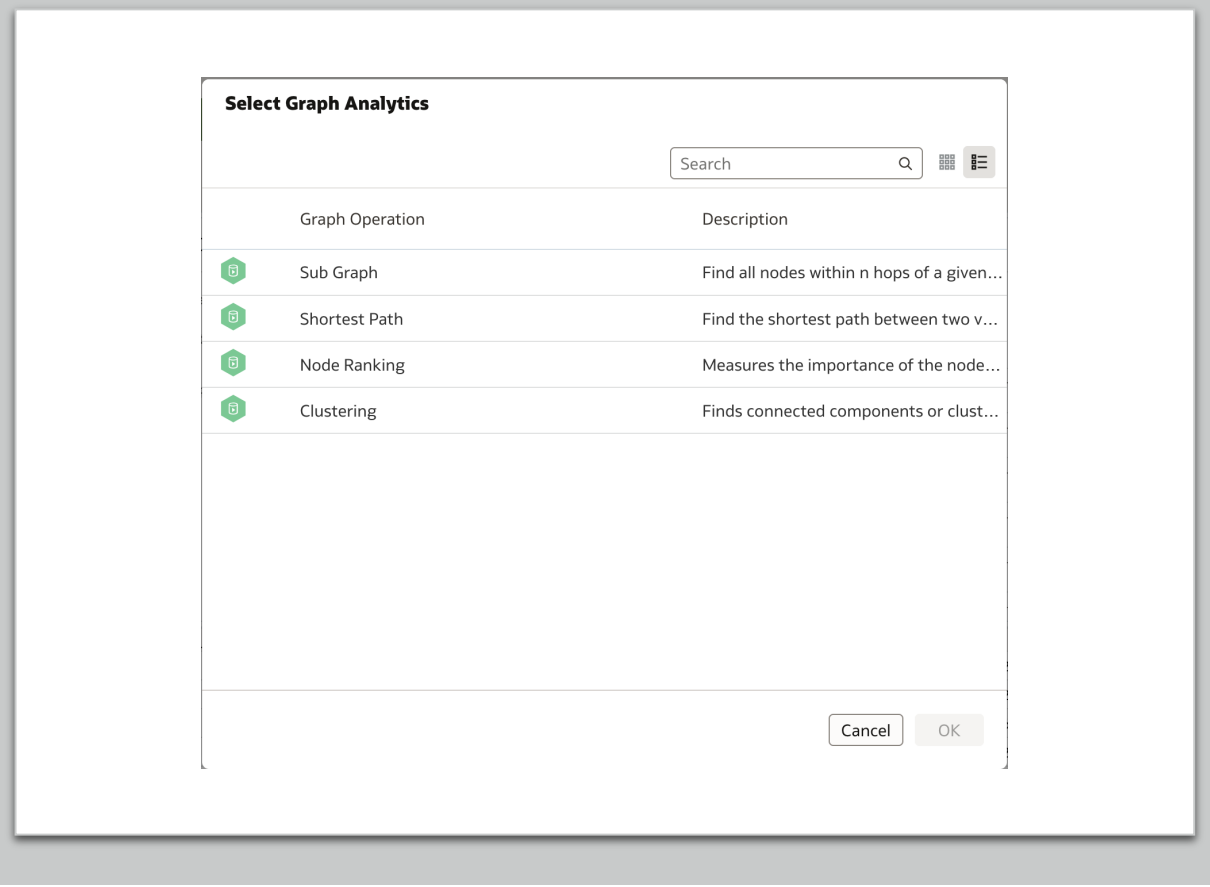


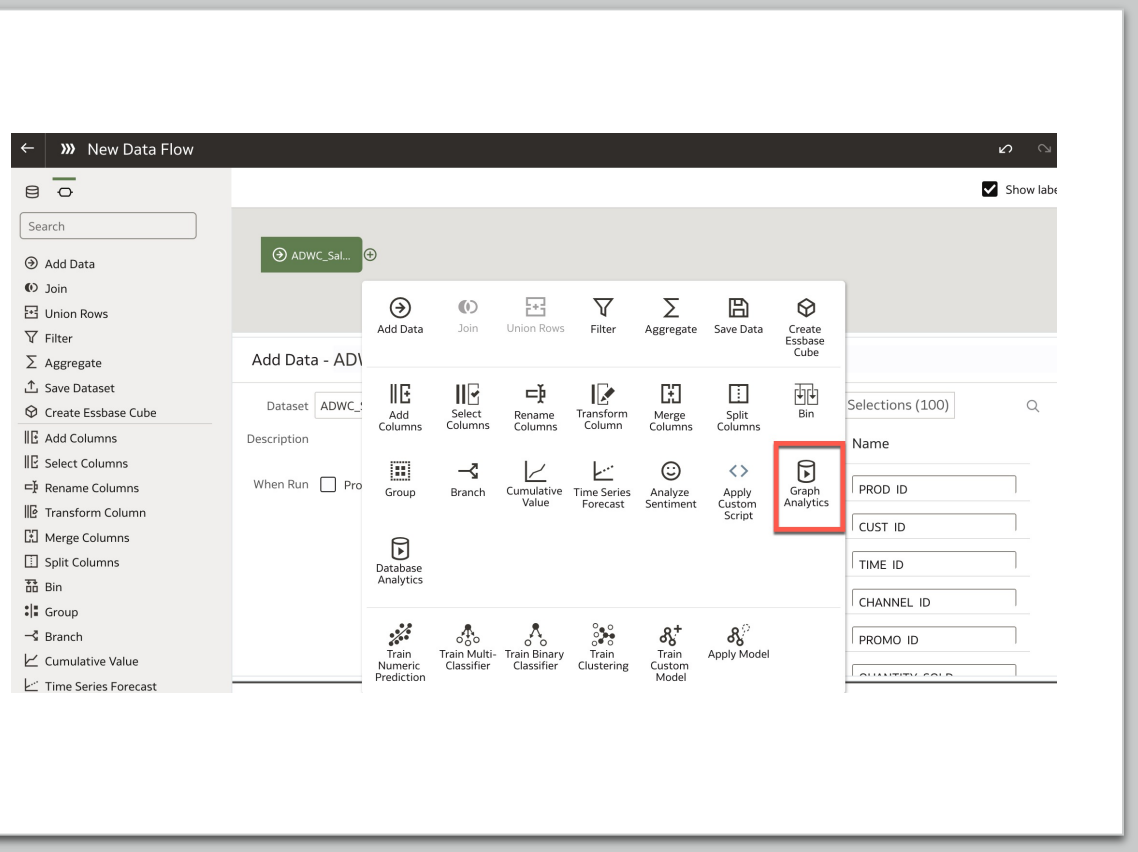


OAC Machine Learning

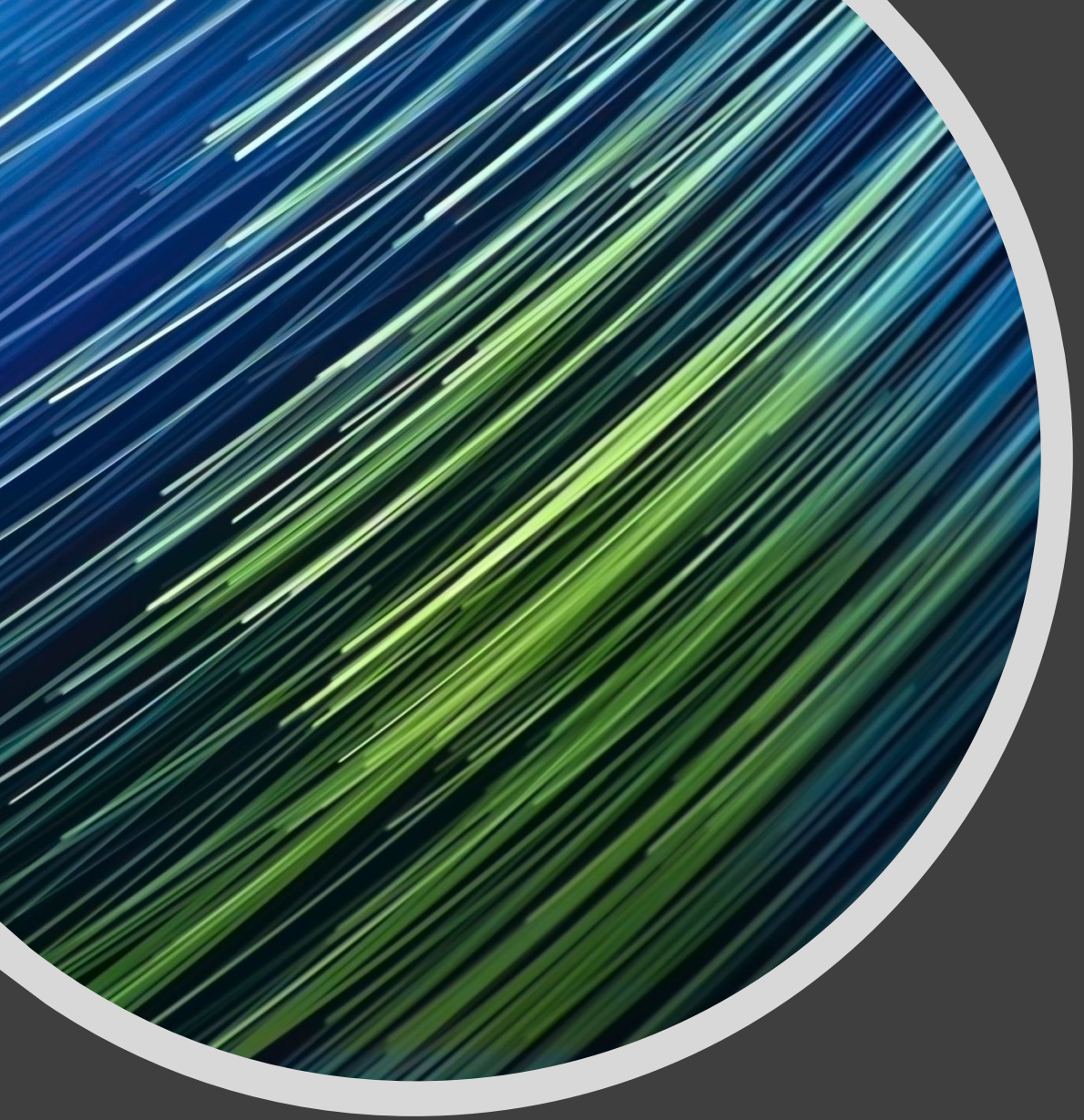


OAC Database Analytics





OAC Graph Analytics

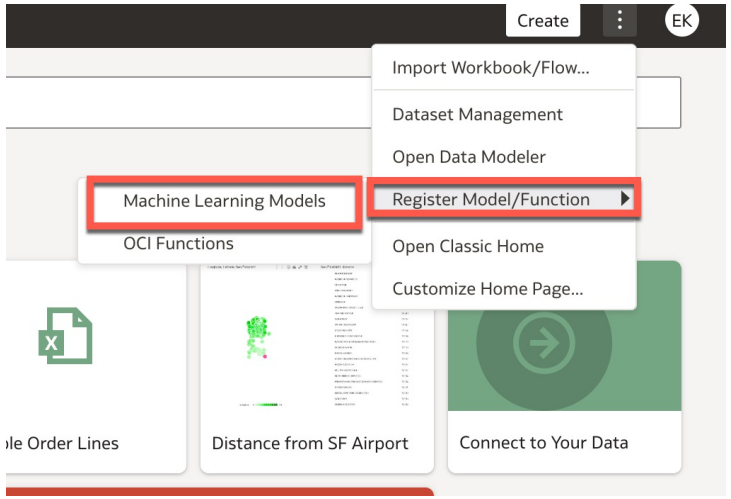


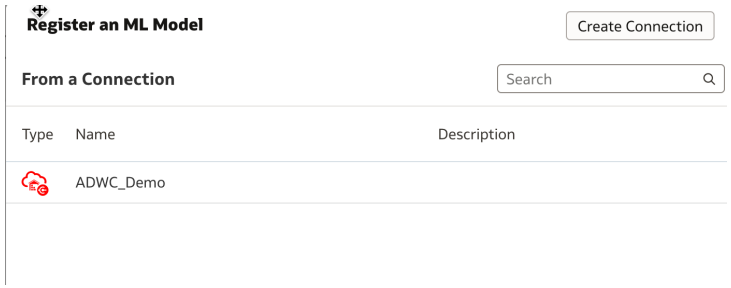
OAC Machine Learning and OCI AI Integration

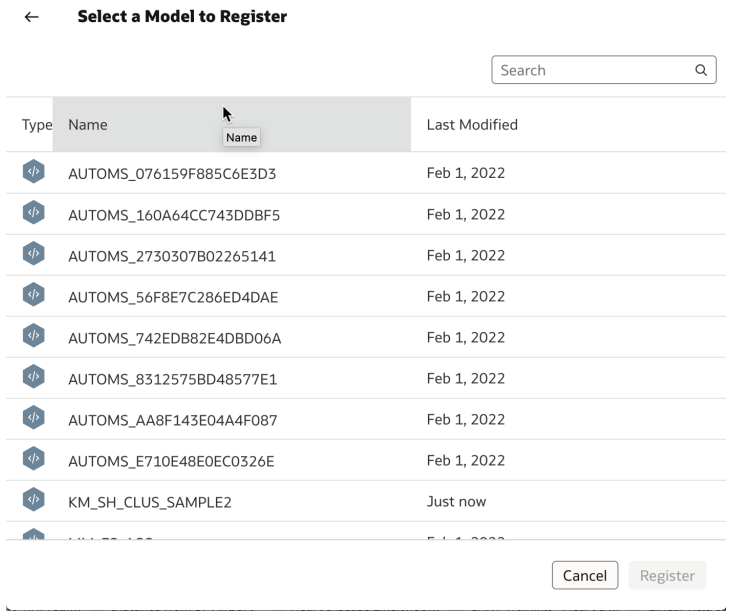
REGISTER ORACLE DATABASE MACHINE LEARNING MODEL

REGISTER OCI FUNCTION

OCI AI VISION

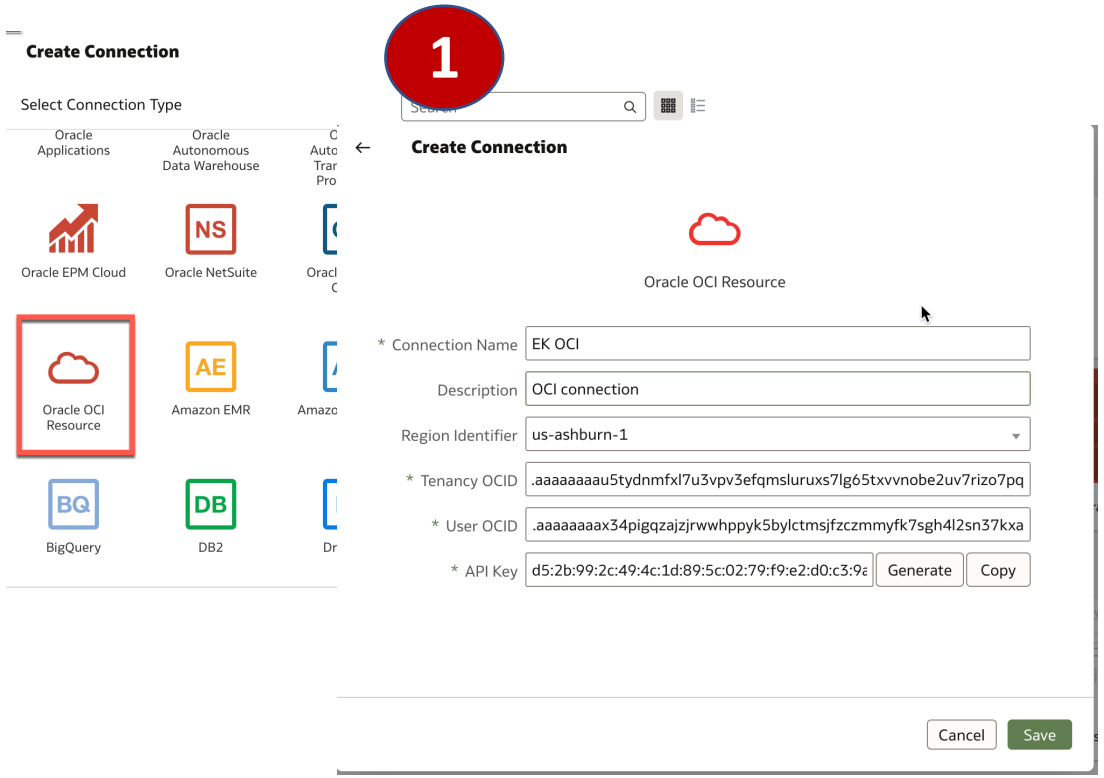




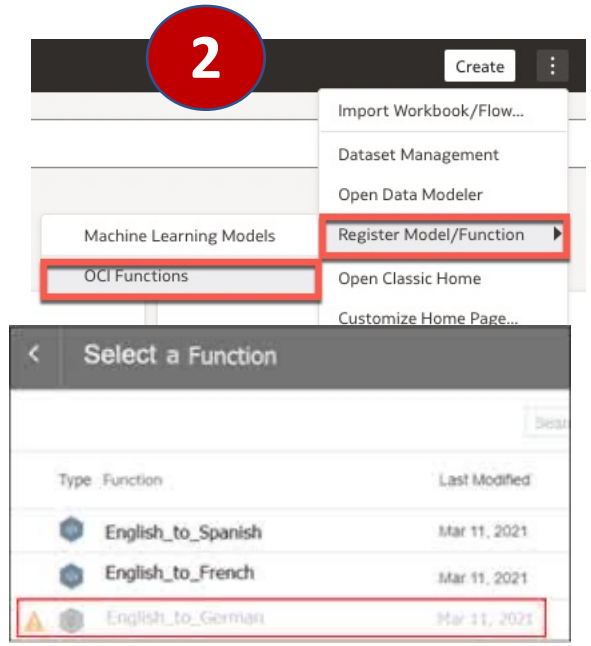


OAC: Register a Database ML Model

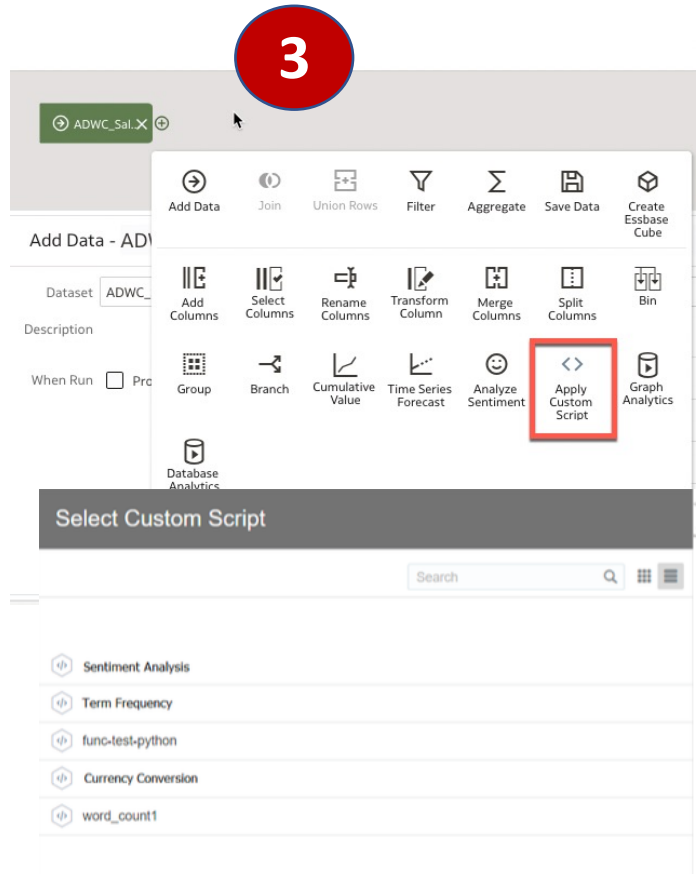
OAC: Register an OCI Function



Create an OCI Connection in OAC

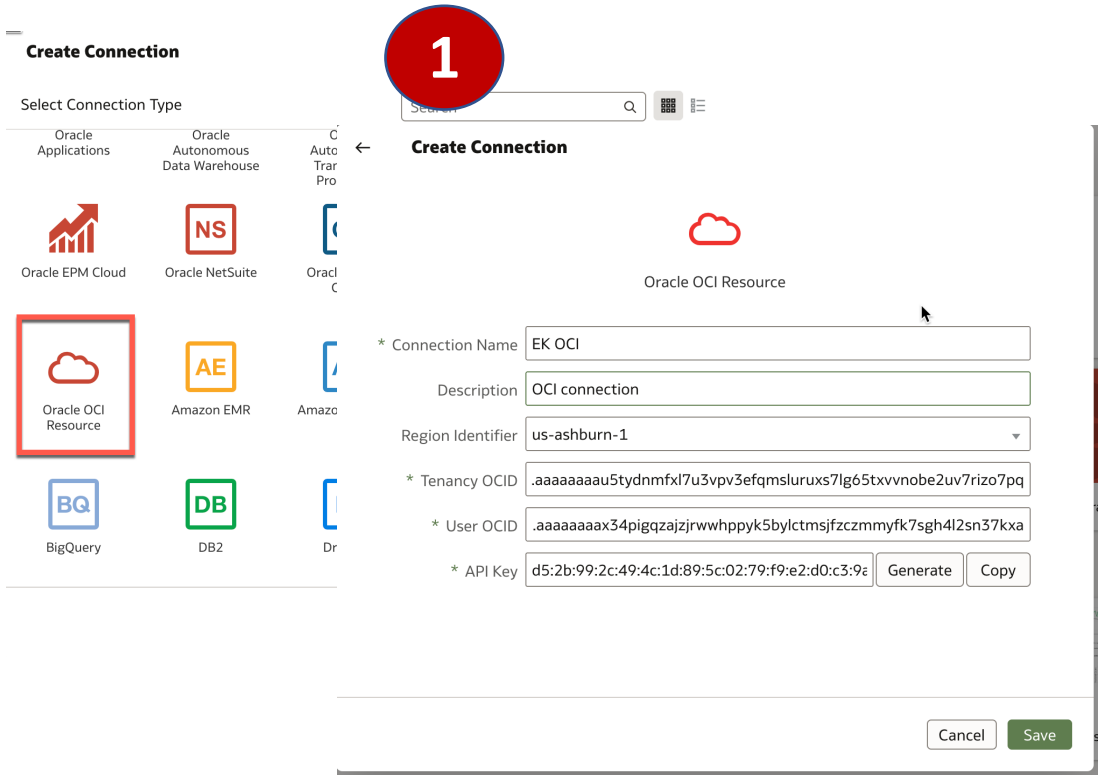


Register an OCI Function in OAC



Create a Data Flow to use Apply Custom Script step

OAC: AI Vision Integration



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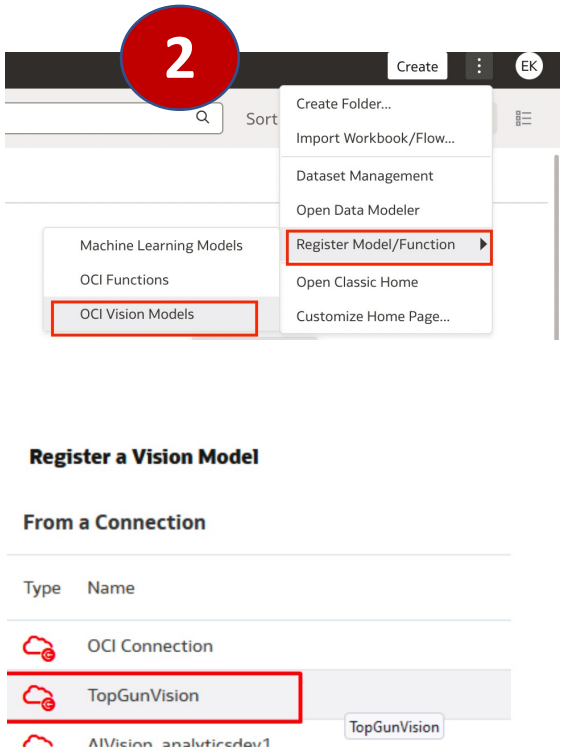
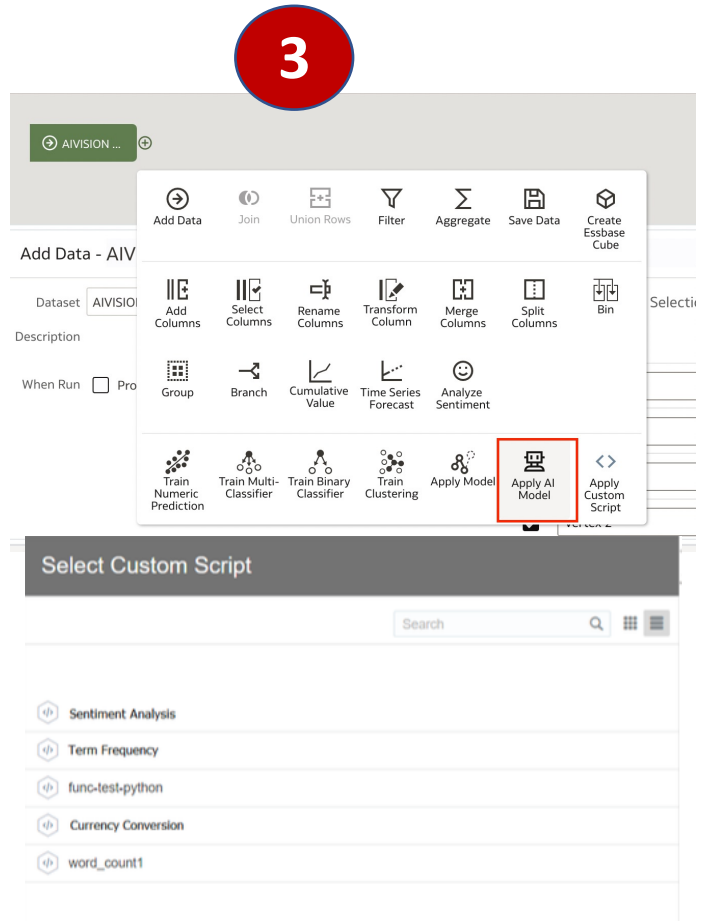


Register an OCI AI Vision Model in OAC



Create a Data Flow to use Apply AI Model step

OAC: Future Roadmap

OCI DATA SCIENCE

OCI AI LANGUAGE

Oracle Analytics Cloud Useful Links

- Oracle Free Tier

https://www.oracle.com/cloud/free/

- Oracle Analytics Library Extensions

https://www.oracle.com/business-analytics/data-visualization/extensions/?category=.ext&textfield=&sortBy=date

- Oracle Analytics Library Examples

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