

Cómo lograr mantener a tus clientes con ayuda de Machine Learning de Oracle Analytics Cloud

Jonathan Córdoba

Innovación con datos en la nube

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in jcordoba1021



Agenda

- 1 Oferta Oracle Analytics Cloud
- 2 Función de Machine Learning
- 3 Demo – Caso de uso

Oracle Analytics Platform

Plataforma de análisis completa para usuarios comerciales, desarrolladores y TI

Posibilidad de conectarse a cualquier fuente de datos, ya sea con acceso en vivo o con caché interno

Connect

Model

Prepare

Explore

Experience

Collaborate

Transformación,
enriquecimiento y reparación
de datos en función de
necesidades analíticas
específicas

Interactúe y consuma
dashboards de información
altamente estilizados

Combinación de fuentes
heterogéneas para crear
una semántica empresarial
unificada

Uso del lenguaje natural y
el aprendizaje automático
para descubrir
conocimientos

Comparta contenido con
otros y colabore para
alcanzar el resultado
óptimo

Oracle Analytics Platform

Plataforma de análisis completa para usuarios comerciales, desarrolladores y TI





Oracle Analytics Plataforma



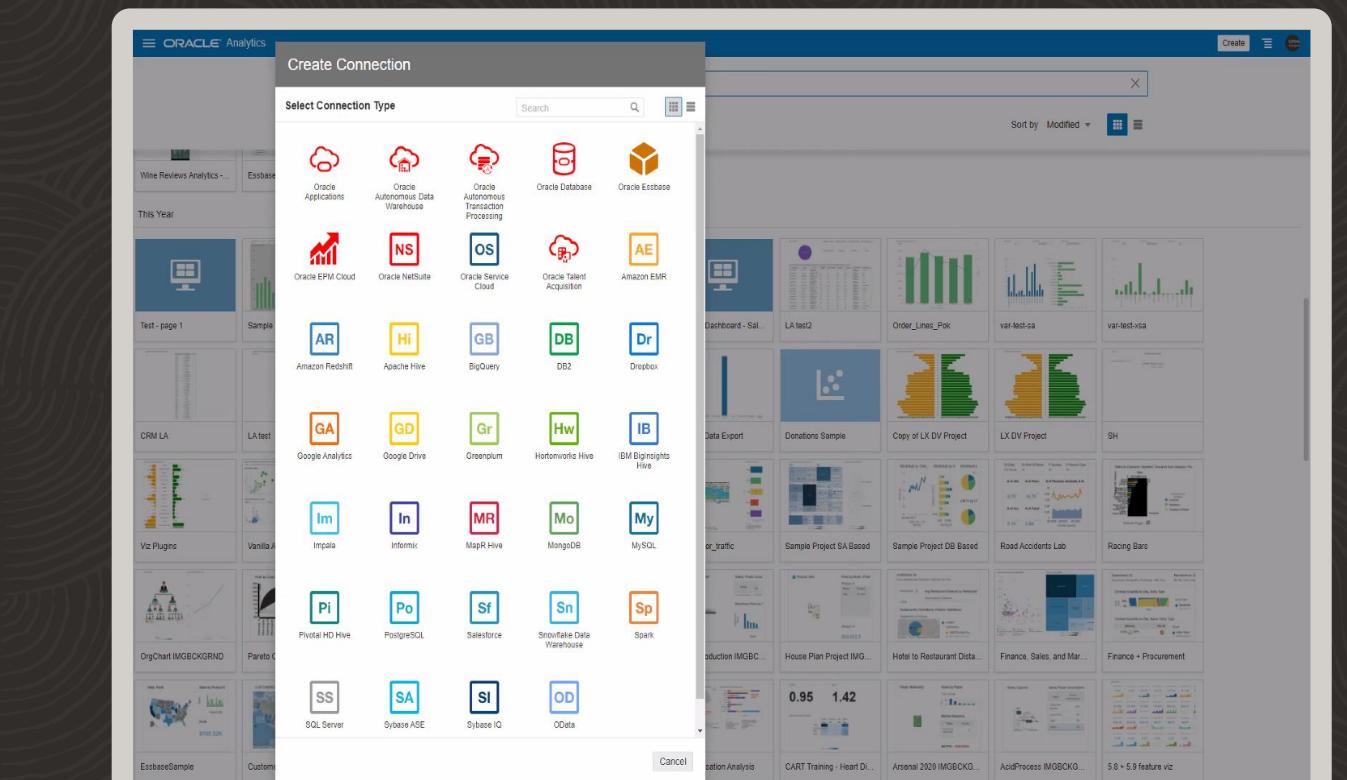
Despliegue con facilidad

- Basado en Oracle Cloud Infrastructure (OCI) líder en la industria
- Solo unos pocos clics para aprovisionar
- Elija entre múltiples formas de recursos
- Escalado elástico

The screenshot shows the Oracle Cloud My Services interface for the Analytics Cloud service. The top navigation bar includes links for Dashboard, Users, and Help. The main header says "Analytics Cloud". Below it, there are two tabs: "Instances" (which is selected) and "Activity". A summary box displays "1 Instances" and "2 OCPUs". The main content area lists an instance named "oracledemo" with a cloud icon. To the right of the instance details is a sidebar with options: "Create Instance", "Oracle Analytics Cloud URL", "Start", "Stop", "Add Tags", "Scale Instance", "Change License Type", and "Delete". At the bottom of the page, there are links for About Oracle, Contact Us, Legal Notices, Terms of Use, and Your Privacy Rights, along with social media icons.

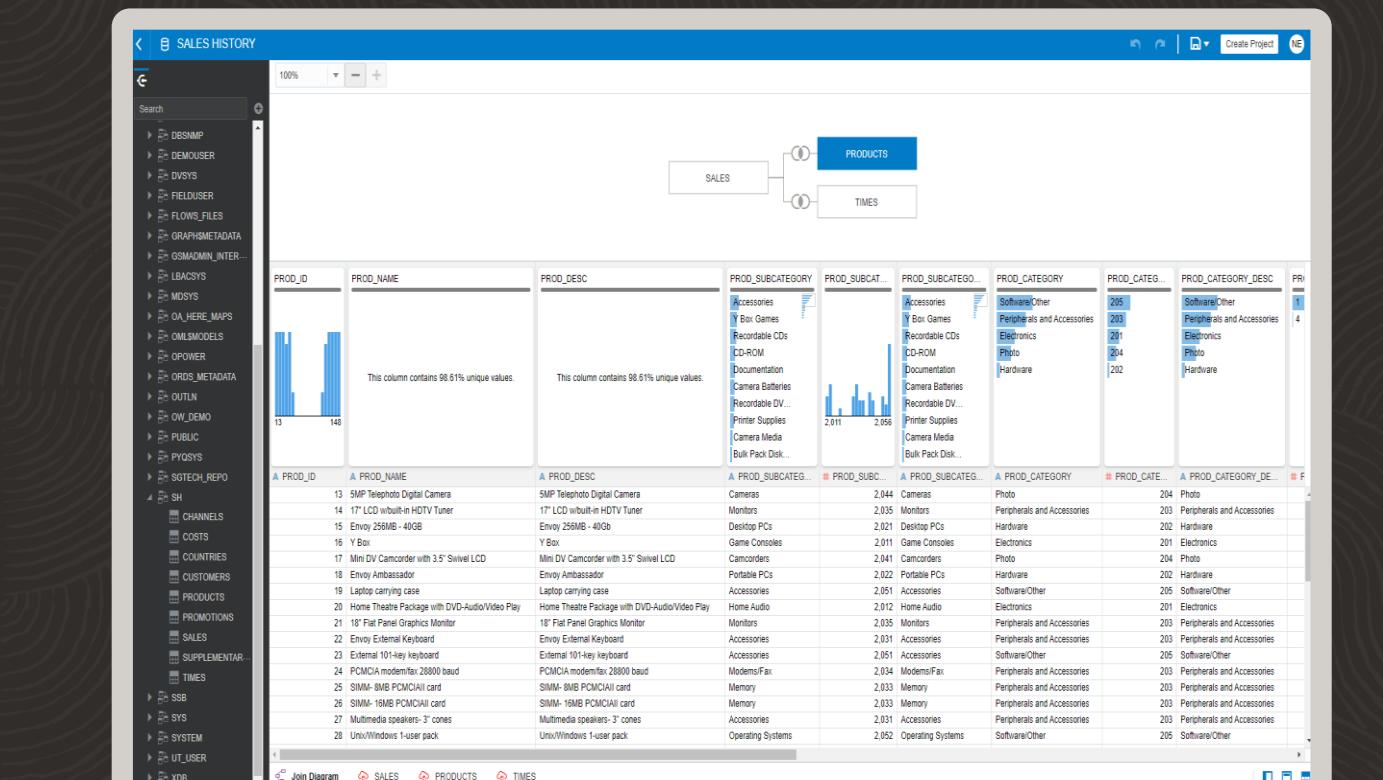
Conectividad abierta

- 34 conectores nativos, incluidos: EPM Cloud, Fusion Apps, Amazon Redshift, Microsoft SQL Server, Snowflake, Google Big Query
- Importe conjuntos de datos personales con XLS, CSV
- JDBC para otras fuentes de datos
- OAC como fuente de datos JDBC para otras aplicaciones



Preparación de datos

- Información sobre la calidad para perfilar y corregir sus datos
- Recomendaciones inteligentes listas para usar
- Conocimientos de referencia personalizados



Enriquecimiento de datos

- Expresiones regulares para transformaciones complejas
- Creación de perfiles de datos inteligentes y conocimientos de referencia personalizados
- Pasos de transformación transparentes y editables
- No es necesario preparar datos en Excel

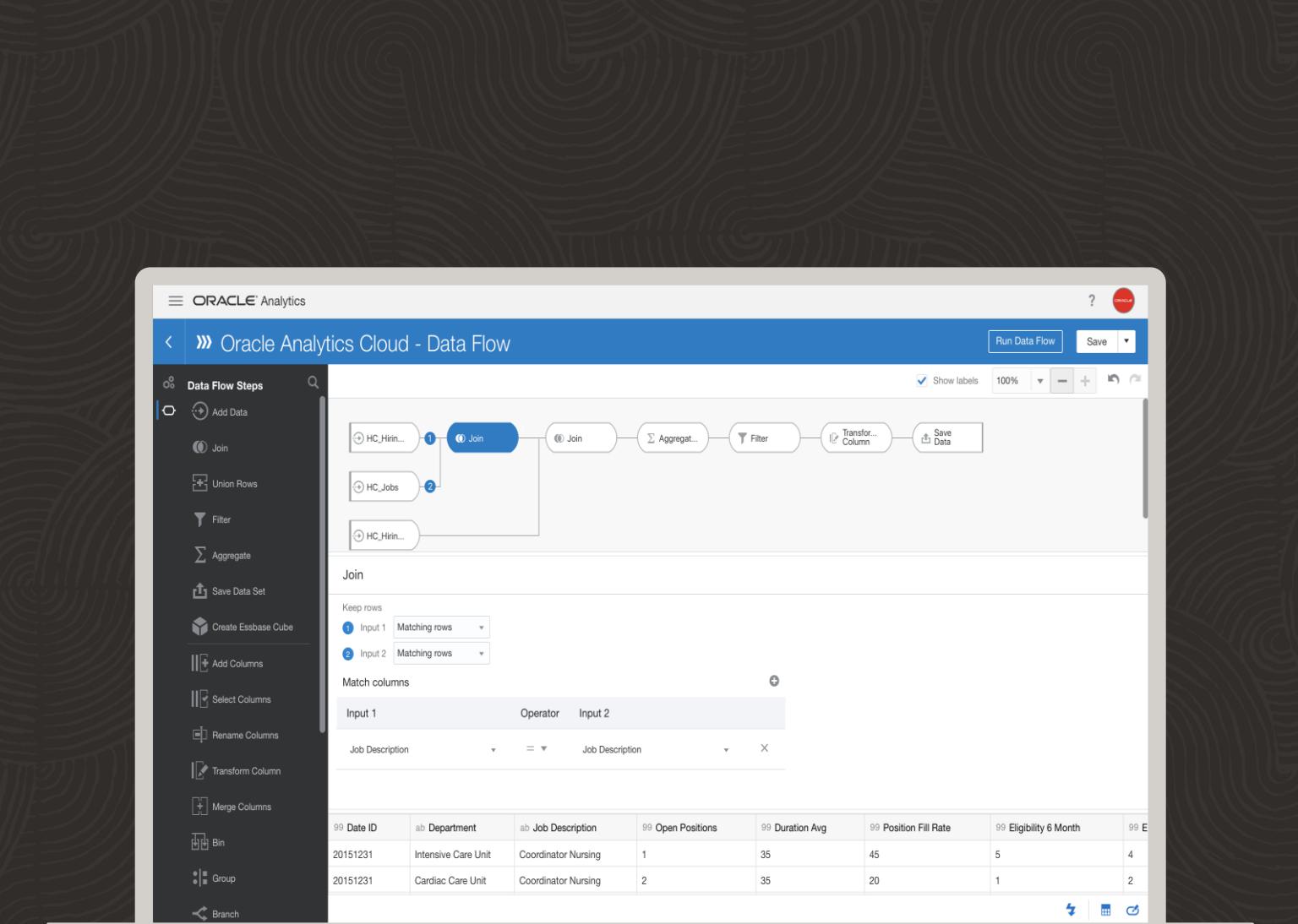
The screenshot shows the Alteryx Designer interface with a workflow titled "Sample Sales Complete v5". The workflow consists of several data sources and transformations:

- T00 Calendar Date:** A source showing dates from 31/12/09 to 5/1/11.
- Enrich D55 City with Lon - From Recommendation:** A transformation step.
- T05 Per Name Y:** A transformation step.
- T04 Per Name Half:** A transformation step.
- T03 Per Name Qtr:** A transformation step.
- T01 Per Name Week:** A transformation step.
- P1 Product:** A transformation step listing products like V5x Flip Phone, MicroPod 600b, etc.
- P2 Product Type:** A transformation step listing types like Audio, Camera, etc.
- P3 LOB:** A transformation step listing categories like Communication, Electronics, TV, etc.
- P4 Brand:** A transformation step listing brands like BiTech, HomeView, FunPod.
- D55 City:** A transformation step listing cities like Sydney, 151.20844.
- D55 City_Lon:** A transformation step listing city IDs like 151.208.

The interface includes a sidebar with various enrichment options and a bottom pane for applying scripts and viewing data elements.

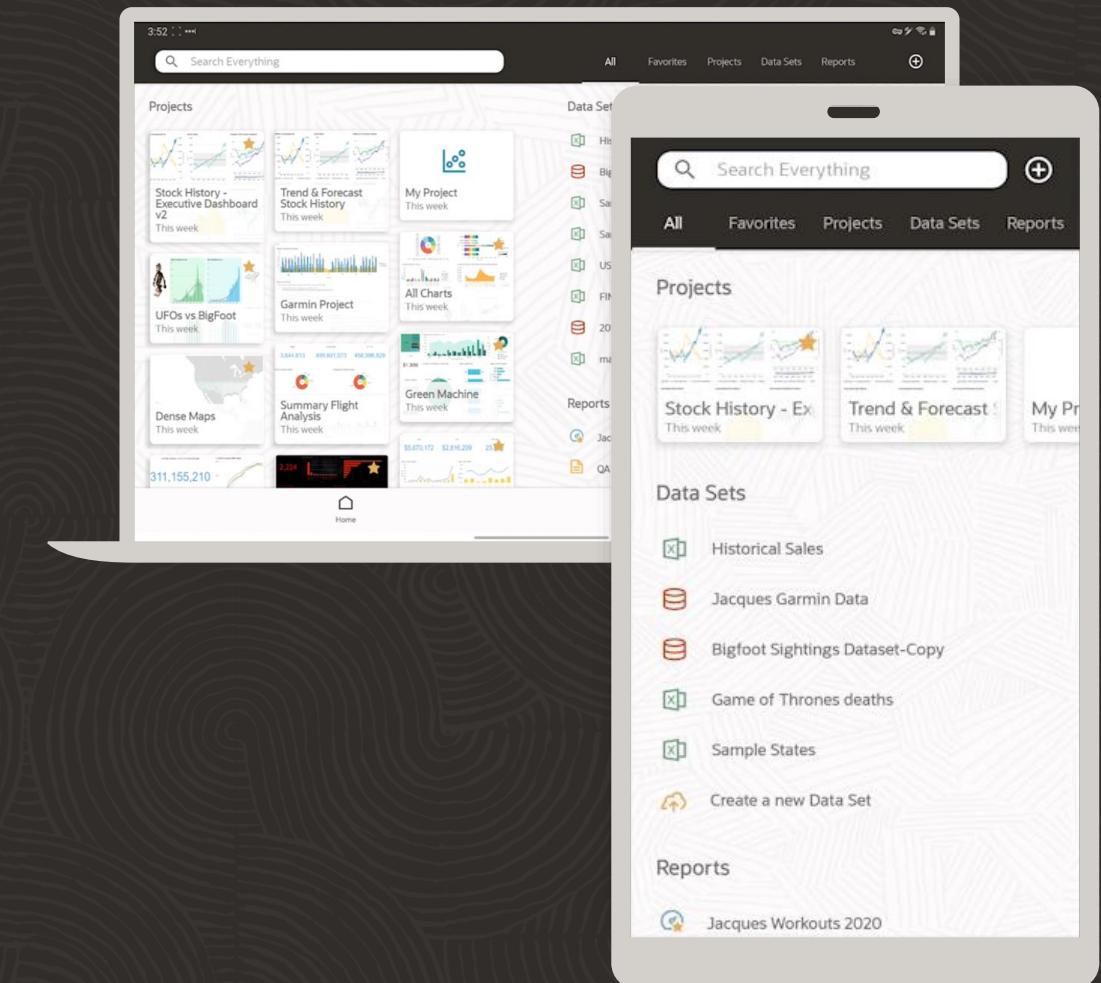
Data flows

- Utilice los flujos de datos para ingerir, limpiar y transformar fácilmente sus datos de diversas fuentes y la nube
- Agrupar, dividir, unir, fusionar datos
- Guarde la salida de datos en un conjunto de datos local, una base de datos relacional o un cubo Essbase
- Entrene y ejecute modelos de ML configurables



Mobile analytics

- Interactúe con sus datos con consultas en lenguaje natural
- Genere automáticamente visualizaciones contextuales sobre la marcha
- Recomendaciones inteligentes
- Análisis móvil nativo de iOS y Android



Machine learning

- ML configurable integrado con regresión lineal, random forest, CART, K-means y clustering
- Análisis avanzado con un solo clic para crear líneas de referencia de tendencias y pronósticos
- Uso de **Data Flows** para entrenar y ejecutar modelos de aprendizaje automático de bases de datos explicables
- Lleve el AA a los datos para un procesamiento más rápido

The screenshot shows the Oracle Analytics Machine Learning interface. On the left, a sidebar titled 'Data Flow Steps' lists various machine learning and data processing steps: Rename Columns, Transform Column, Merge Columns, Split Columns, Bin, Group, Branch, Cumulative Value, Time Series Forecast, Analyze Sentiment, Train Numeric Predictor, Train Multi-Classifier, Train Clustering, and Train Binary Classifier. The main area is titled 'Machine Learning' and shows a 'Test Data' step. Below it, there's a section for 'Add Data - Test Data Set' where a file named 'Test Data Set.xlsx' has been uploaded. A preview table shows columns: Order Line ID, Order ID, Order Priority, Customer ID, Customer Name, Customer Segment, City, and Product Category. The first two rows of data are visible.

ab Order Line ID	ab Order ID	ab Order Priority	ab Customer ID	ab Customer Name	ab Customer Segment	ab City	ab Product Category
7183	90930	Medium	2626	Lilian Fischer	Consumer	Riyadh	Office Supplies
580	87232	High	221	Colleen Wilcox	Home Office	Sheffield	Office Supplies

Machine learning

1. Defina o extraiga **data histórica** con la cual se trabajará.
2. Construya su **modelo y entrénelo**. (Puede utilizar el 80% de los datos históricos disponibles para hacerlo)
3. Luego, **pruebe** el modelo con el 20% restante de los datos históricos.
4. Revise la **calidad** del modelo, **entrénelo** de nuevo de ser requerido.
5. **Aplique** el **modelo** construido a los nuevos datos del negocio.
6. Tome decisiones.

The screenshot shows the Oracle Analytics Machine Learning interface. On the left, a sidebar lists various data flow steps: Rename Columns, Transform Columns, Merge Columns, Split Columns, Bin, Group, Branch, Cumulative Value, Time Series Forecast, Analytic Sentiment, Train Numeric Predictor, Train Multi-Classifier, Train Clustering, and Train Binary Classifier. The main area is titled "Machine Learning" and shows a "Data Flow Steps" section with a "Net Data..." button. Below it is a "Add Data - Test Data Set" section where a file named "Test Data Set.xlsx" has been uploaded. The "Columns" tab is selected, showing columns like Order Line ID, Order ID, Order Priority, Customer ID, Customer Name, Customer Segment, City, and Product. A preview table displays data for two rows: Order Line ID 7183 and 580, with Order ID 90330 and 87232, Order Priority Medium and High, Customer ID 2626 and 221, Customer Name Lillian Fischer and Colleen Wilcox, Customer Segment Consumer and Home Office, City Riyadh and Sheffield, and Product Office Supplies.



Oracle Analytics

Arte de las posibilidades



Maps Examples - Project

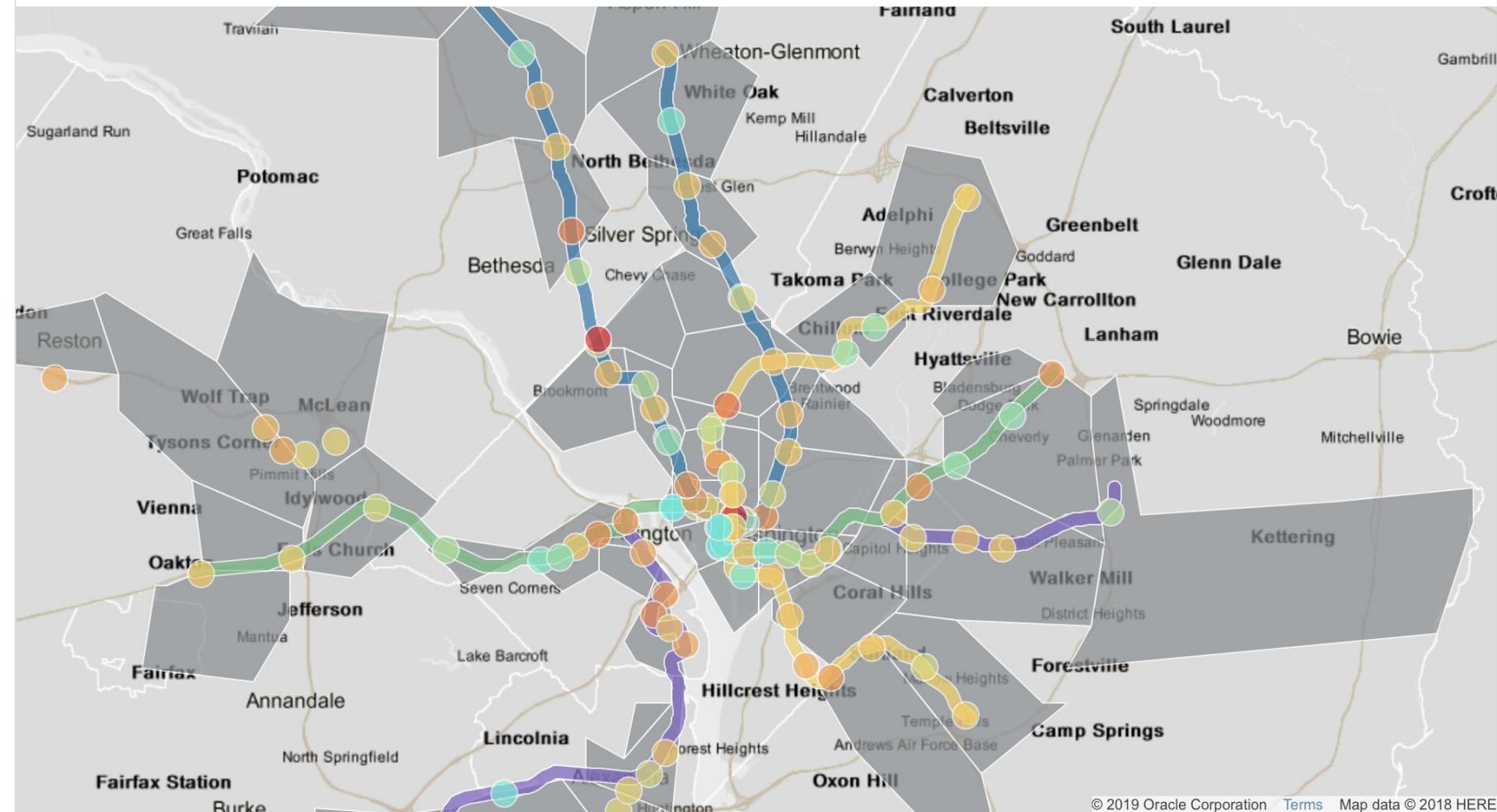
[Visualize](#) [Narrate](#)

Line

All



Passenger Volume Per Day in DC Metro

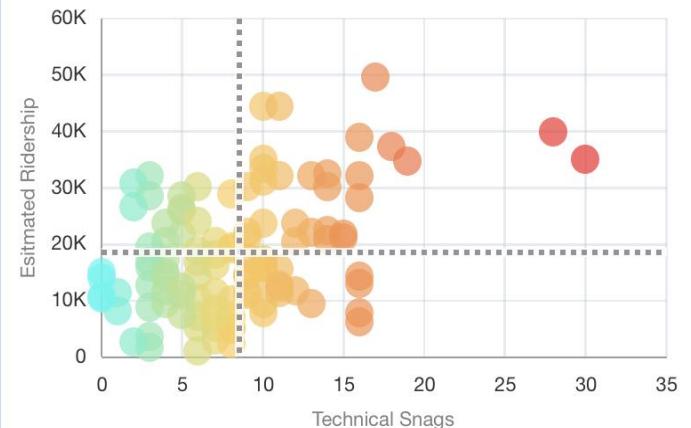

 © 2019 Oracle Corporation [Terms](#) Map data © 2018 HERE

Sales Profit Analysis

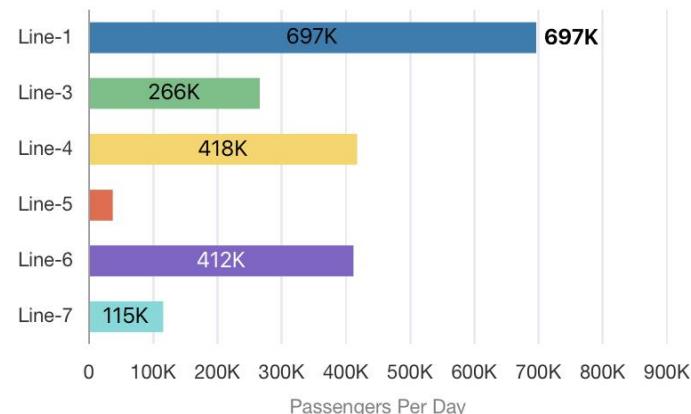
Metro Passenger Volume

Booth Attendance

Ridership x Technical Snags by Station



Passengers Per Day by Line



Infografía de Vinos



The Numbers

Wines Reviewed

129,971

Average Price

US\$35.3

Average Points

88.45

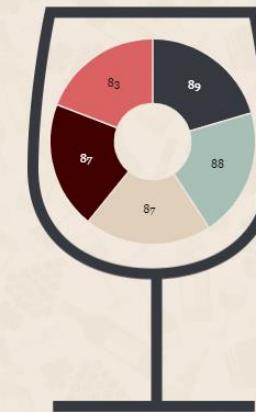
Maximum Rating

100

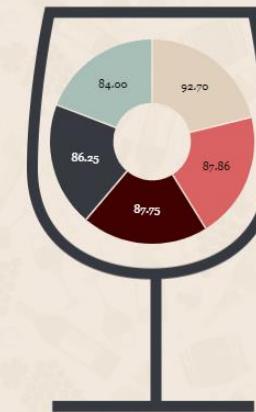
Tasted and Ranked



The Top 5 Varieties



The Top 5 Wines



The Top 5 Wineries

 Decks

Profit and Loss

Balance Sheet

Payables

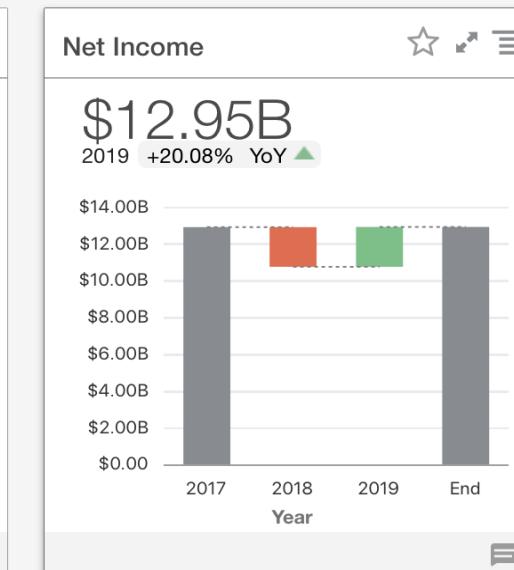
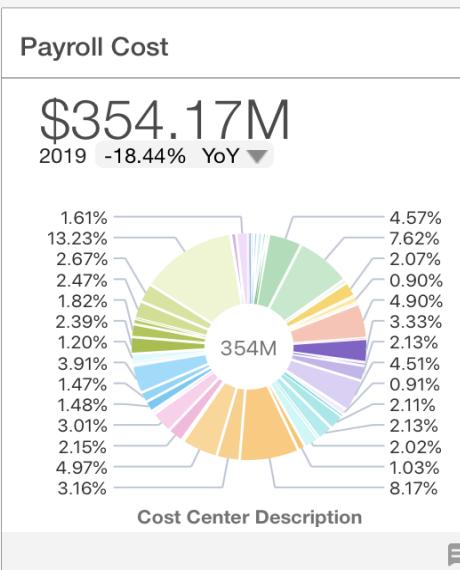
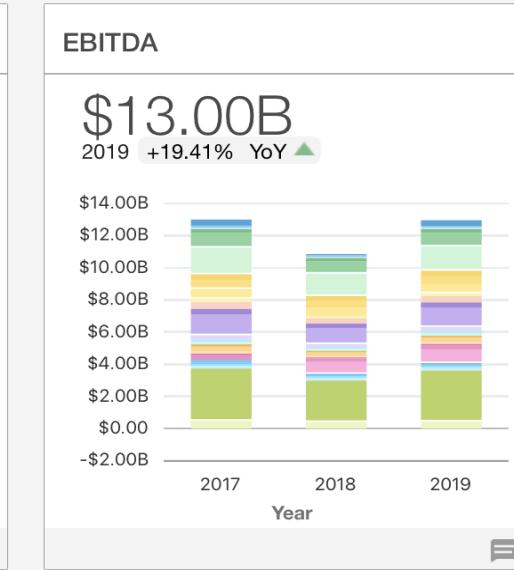
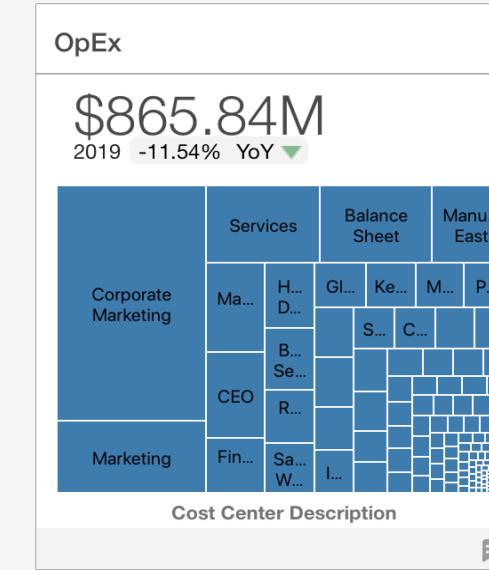
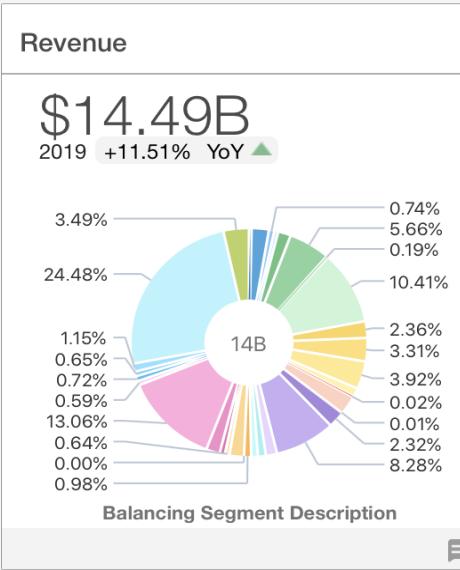
Financial Ratios

Finance Review

P&L Review

Workforce Management

Procurement - Spend



Federal Spends Science & Technology

Prepare Visualize Narrate

Save



Government Agency Name Year Quarter Budget Function Budget Sub Function

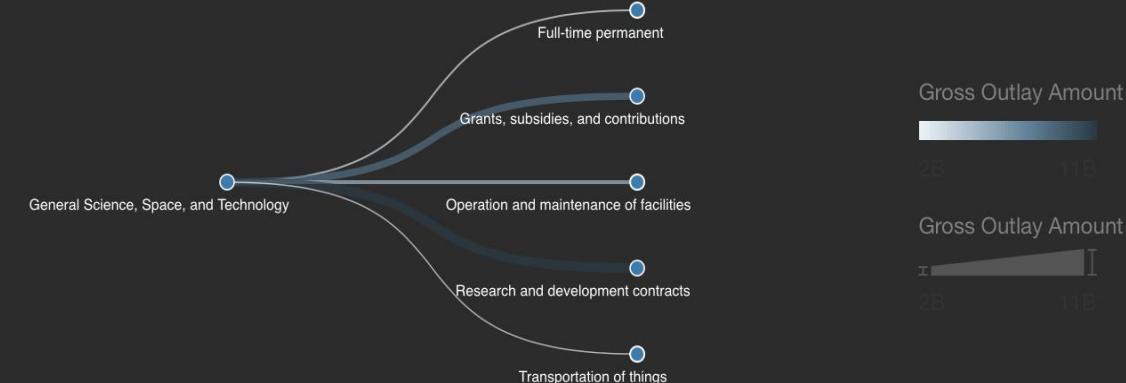
All 2019 All All All



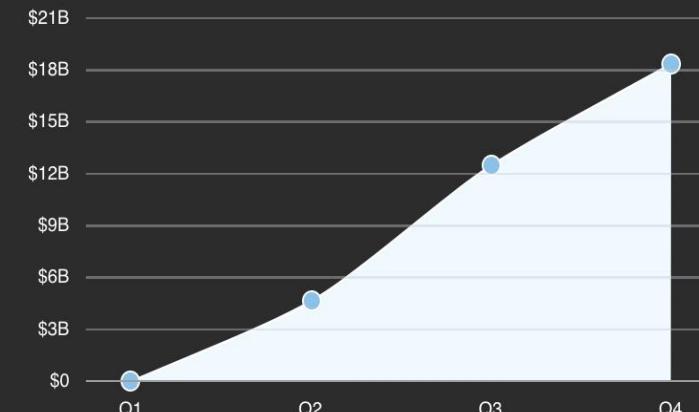
Total Federal Spends For Science & ...

Top 5 Spends By Program

\$35B

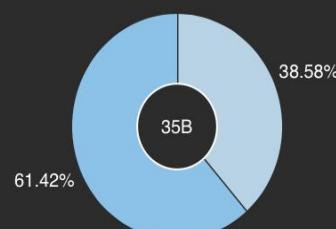


Spends Trend Estimate by Quarter



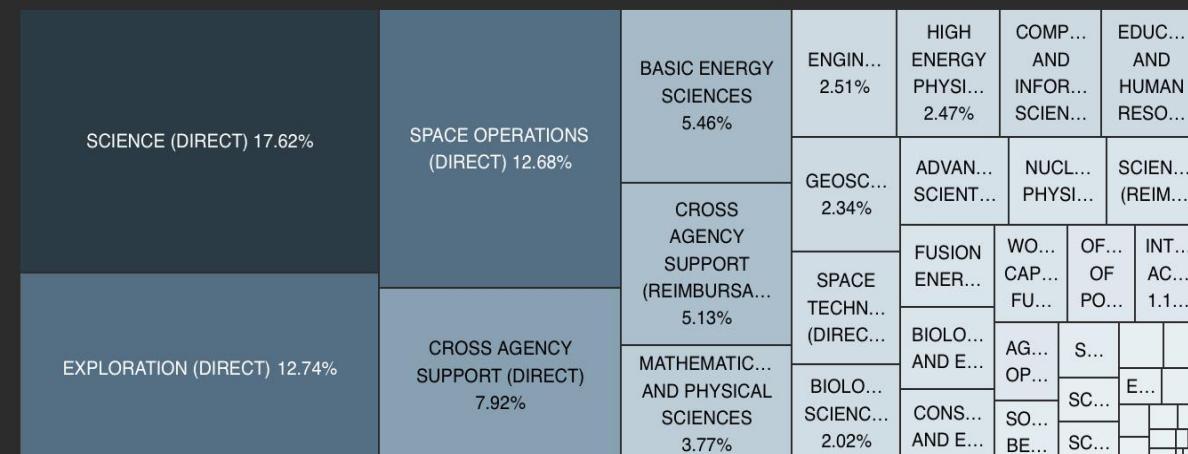
Gross Outlay Amount by Budget Sub...

Spends by Program



Budget Sub Function

- General science and basic research
- Space flight, research, and supporting activities



Spends By Program Description

The data represents the Gross Outlay Amount for a total of 54 Program Activity Names.

What stands out in this situation is that a few Program Activity Names account for more than 50% of the total. There is a dominant group of Program Activity Names. This group is composed of four Program Activity Names: SCIENCE (DIRECT) with 17.62%, EXPLORATION (DIRECT) with 12.74%, SPACE OPERATIONS (DIRECT) with 12.68% and CROSS AGENCY SUPPORT (DIRECT) with 7.92%.

The 50 other Program Activity Names combined make up the rest of the list, accounting for 49.04% of the total.

When taken together, the 54 Program Activity Names amount to a total value of 35,494,104,571, 657,298,233 on average.



Oracle Analytics Demonstración

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Q&A

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