

Watchmen

A Complete NoCode Lightweight Data Platform
Delivered as A Single Application

Why we build this

- Many solutions in the industry require different tools to be used at different stages of the data, and the cost of learning and maintenance is high
- Many solutions have no way to manage different open source or commercial components
- Unfriendly to the junior technical team

Problems have been solved

- Data processing logic chaos
- Data is isolated and unable to be well distributed and used
- Data fragmentization

Core design concept

- NoCode Platform
- Data Mesh Architecture
- End to End Scene Coverage
- DataOps, Automation & Transparency
- Distributed Memory, Computing & Storage
- Various underlying Database Technologies

Our solution

- Watchmen - End to End NoCode DataOps Platform

What is Watchmen

- Quickly collect, transform data from any system
- Start data analysis in first place, through simple ui operations
- Help everyone be more data-driven.

After use Watchmen

- Simplify your data flow - develop in single application
- Productization of data assets
- Data democratization
- Clear division of team functions

Key features

- Data Pipeline
- Data Test
- Data Visualization
- Data Government
- Data Security
- Data Quality Monitor
- Data Asset Collection
- Data Distribution
- Data Profile

The image displays three screenshots of the Watchmen platform, illustrating its key features:

- Watchmen Admin:** Shows the main navigation menu with options like HOME, TOPICS, ENUMERATIONS, SPACES, PIPELINES (highlighted), USER GROUPS, USERS, and SIMULATOR (EXPERIMENTAL). The PIPELINES section shows a complex flow diagram titled "demo" with nodes such as demo_raw_account, demo_contact, demo_opportunity, demo_aggr_interaction_oppori, demo_aggregate_opportunity, and demo_interaction.
- Data Quality Center:** Shows a "Consanguinity" visualization. It features a large pink bar labeled "demo_raw_opportunity #5684338592854997474" and a large orange bar labeled "demo_aggregate_opportunity #56843430071". Below these are smaller bars for "demo_opportunity #568433880034233045" and "demo_interaction #568433880034233045". The interface includes buttons for SETTINGS, LOGOUT, and DEMO_USER, along with links for RUN STATISTICS, CONSGANGUINITY, and MONITOR RULES.
- Watchmen Console:** Shows a bar chart titled "DD" with data for three individuals: Ari Ramírez-Medina (84,153), Jess Patel (83,162), and Sandy Hagen (105,846). The chart has a Y-axis ranging from 0 to 50,000. The interface includes a navigation menu with HOME, DASHBOARDS, SHOW FAVORITES, CONNECTED SPACE Z104MTc1ZJEDY, CONNECTED SPACE Z11LODYYMzDH, TEM2, TEMPLATE, and CONNECT SPACE. A command bar at the bottom allows sending commands via "/pipeline", "/topic", "/flow", "/graph", "/clear", and "/help".

For analysys

- Smooth the path from raw data to insights



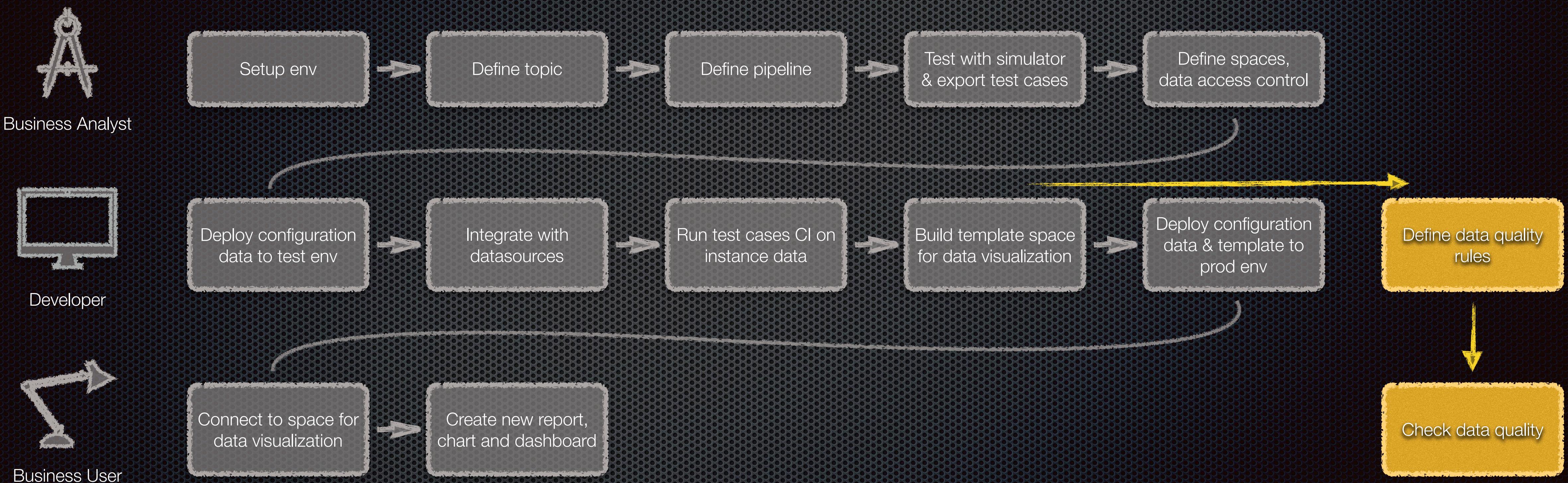
For IT

- Deliver business value with trusted analytics, empower organizational agility
- Governed data and analytics at scale
- Monitor everything in watchmen

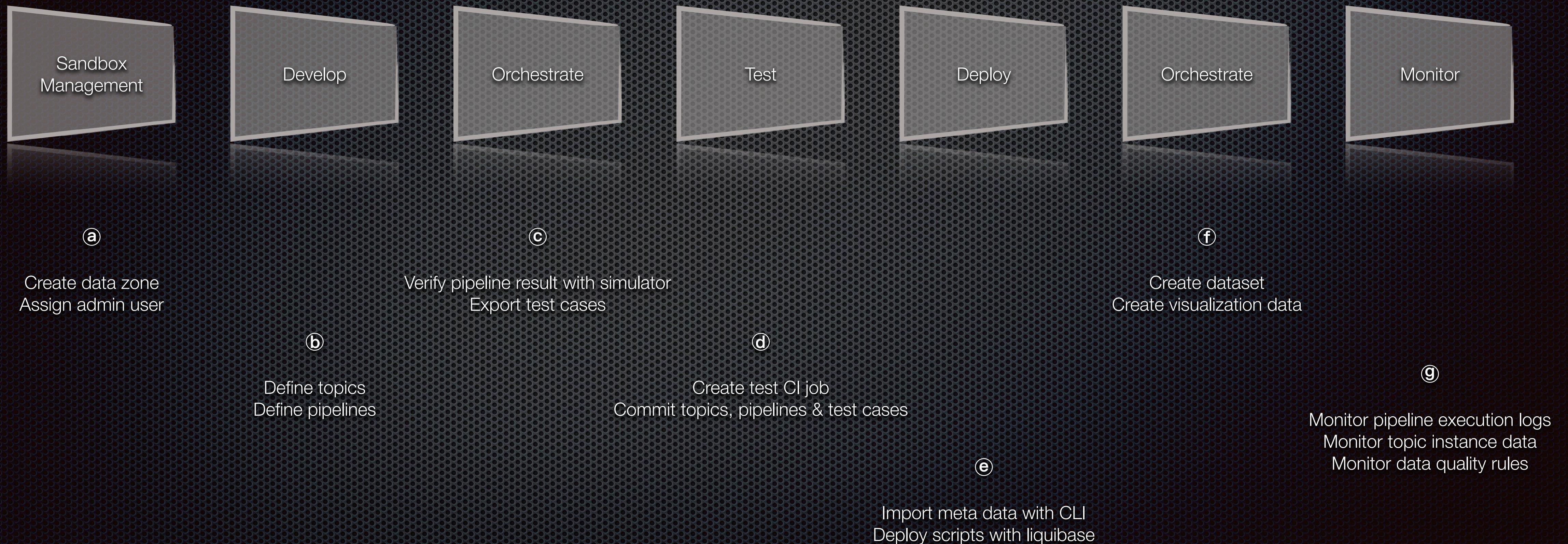
For Executives

- Help Executives build a trust - in people and data
- Help executives build data driven team

How to use our platform



How DataOps in Watchmen



Sandbox Management

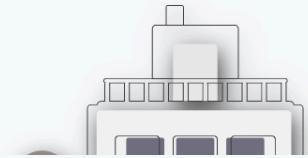
- Data Zone Management
- Data Source Management

Data Zones

Search by name + CREATE DATA ZONE

A NEW DATA ZONE

ZONE NAME:



Data Sources

Search by data source name, zone name, etc. + CREATE DATA SOURCE

A NEW DATA SOURCE

DATA SOURCE CODE:

DATA SOURCE TYPE: MySQL

DATA ZONE:

HOST:

PORT:

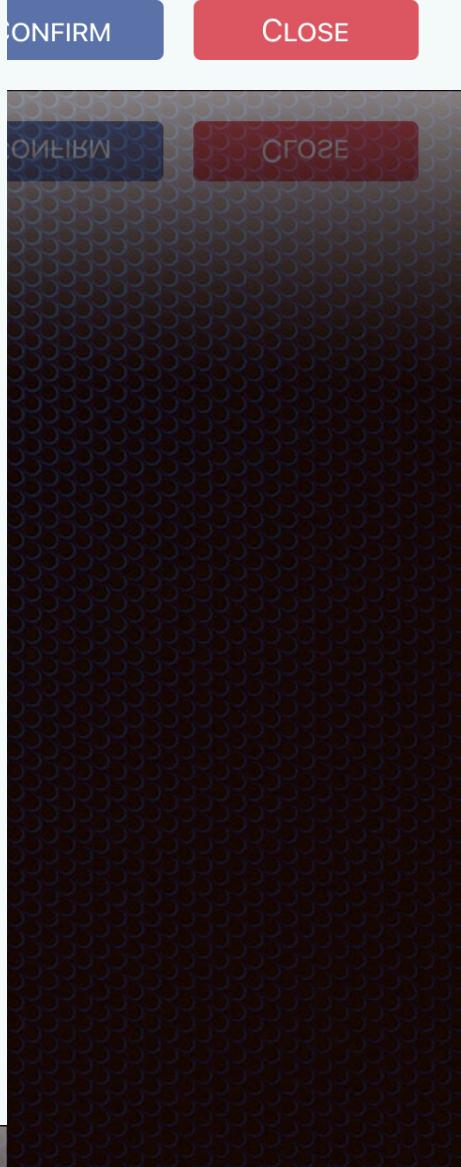
DATA SOURCE NAME:

USERNAME:

PASSWORD:

EXTRA PARAMETERS: =

CONFIRM CLOSE



Develop

- Data Structure Develop
- Data Pipeline Develop

The screenshot displays a user interface for data development, featuring two main sections: a "Topics" page at the top and a "raw_opportunity" pipeline editor at the bottom.

Topics Page:

- Header: Topics
- Search bar: Search by topic name, factor name, description, etc.
- Buttons: + CREATE TOPIC, DOWNLOAD SCRIPTS
- Section: A NEW TOPIC
- Form fields:
 - TOPIC NAME: (empty)
 - TOPIC KIND: Business
 - TOPIC TYPE: Distinct
 - DATA SOURCE: (empty)
 - DESCRIPTION: (empty)

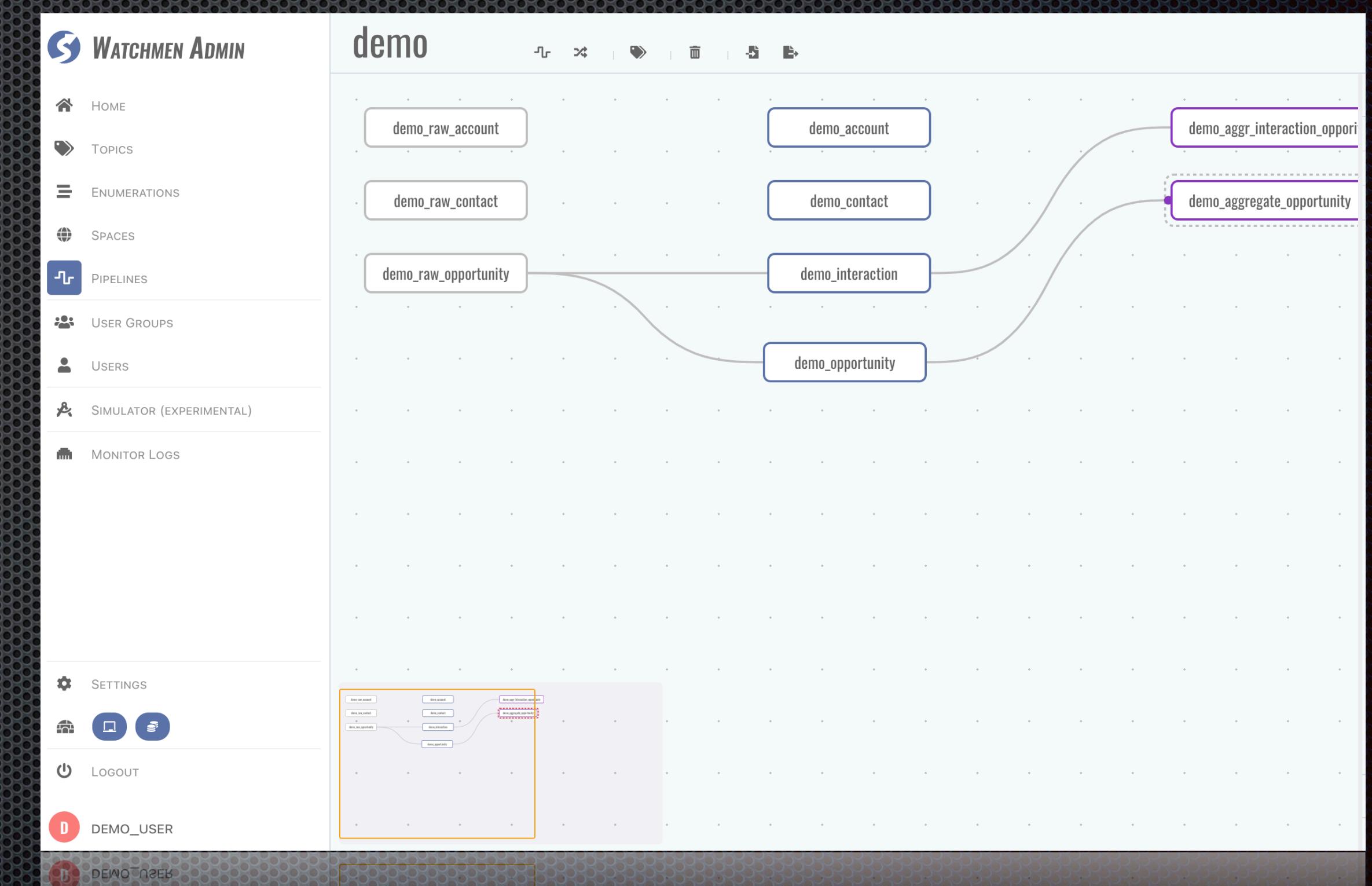
raw_opportunity Pipeline Editor:

- Header: raw_opportunity
- Toolbar: PIPELINE CHANGED, various icons
- Configuration:
 - ON TOPIC: DEMO_RAW_OPPORTUNITY
 - TRIGGER ON: INSERT OR MERGE
 - PIPELINE PREREQUISITE: ANYWAY
- Stages:
 - STAGE #1 (COLLAPSED): Noname Stage
 - STAGE #2: sync opportunity
 - STAGE PREREQUISITE: ANYWAY
 - UNIT #2.1 (COLLAPSED): read account
 - UNIT #2.2: insert_merge opportunity
 - LOOP VARIABLE NAME: Loop actions with given variable...
 - UNIT PREREQUISITE: ANYWAY
 - ACTION #2.2.1: INSERT OR MERGE ROW
 - TARGET TOPIC: demo_opportunity
 - USE MAPPING:
 - #1 FROM TOPIC demo_raw_opportunity opportunity_name
 - As Is
 - #2 FROM TOPIC demo_raw_opportunity account
 - As Is
 - #3 FROM TOPIC demo_raw_opportunity estimated_value
 - As Is
 - #4 FROM TOPIC demo_raw_opportunity expected_close_date
 - As Is

- Buttons: CONFIRM, CLOSE, APPEND FACTOR, IMPORT FROM FILE

Data Orchestrate

- Connecting multiple pipelines for data orchestrate



Testing

- Pipeline simulator testing tools
- Download test case for ci job

Pipeline Simulator

1. Start from [demo_raw_opportunity] [RESELECT](#)

2. Prepare Data

```
graph TD; A[Trigger By: DEMO_RAW_OPPORTUNITY] --> B[Pipeline: RAW_OPPORTUNITY]; B --> C[Read From: DEMO_ACCOUNT]; C --> D[Write To: DEMO_INTERACTION]; D --> E[Pipeline: NONAME_PIPELINE]; E --> F[Write To: DEMO_AGGR_INTERACTION_OPPORTUNITY]; F --> G[Write To: DEMO_OPPORTUNITY]
```

Data of Action Run

1	1
2	1
3	1

After Run: demo_aggregate_opportunity

#	price	owner	opportunity_count
1	10000	Jess Patel	1
2	6154	Casey Park	1

After Run: demo_interaction

#	interaction	type	date_and_time	status	opportunity
1	BPS Pilot—Pricing discu...		2020-08-22	Qualification	BPS Pilot
2	BPS Pilot—Discovery		2020-08-12	Qualification	BPS Pilot
3	Timbershadow expansio...		2020-08-25	Qualification	Timbershadow expansio...
4	Timbershadow expansio...		2020-08-14	Qualification	Timbershadow expansio...

After Run: demo_opportunity

#	opportunity_name	status	priority	owner	account	estimated_value	proposal_deadline	exp
1	BPS Pilot	Qualification	Medium	Jess Patel	Bear Paw Solutions	10000		
2	Timbershadow expansio...	Qualification	Very high	Casey Park	Timbershadow	6154		

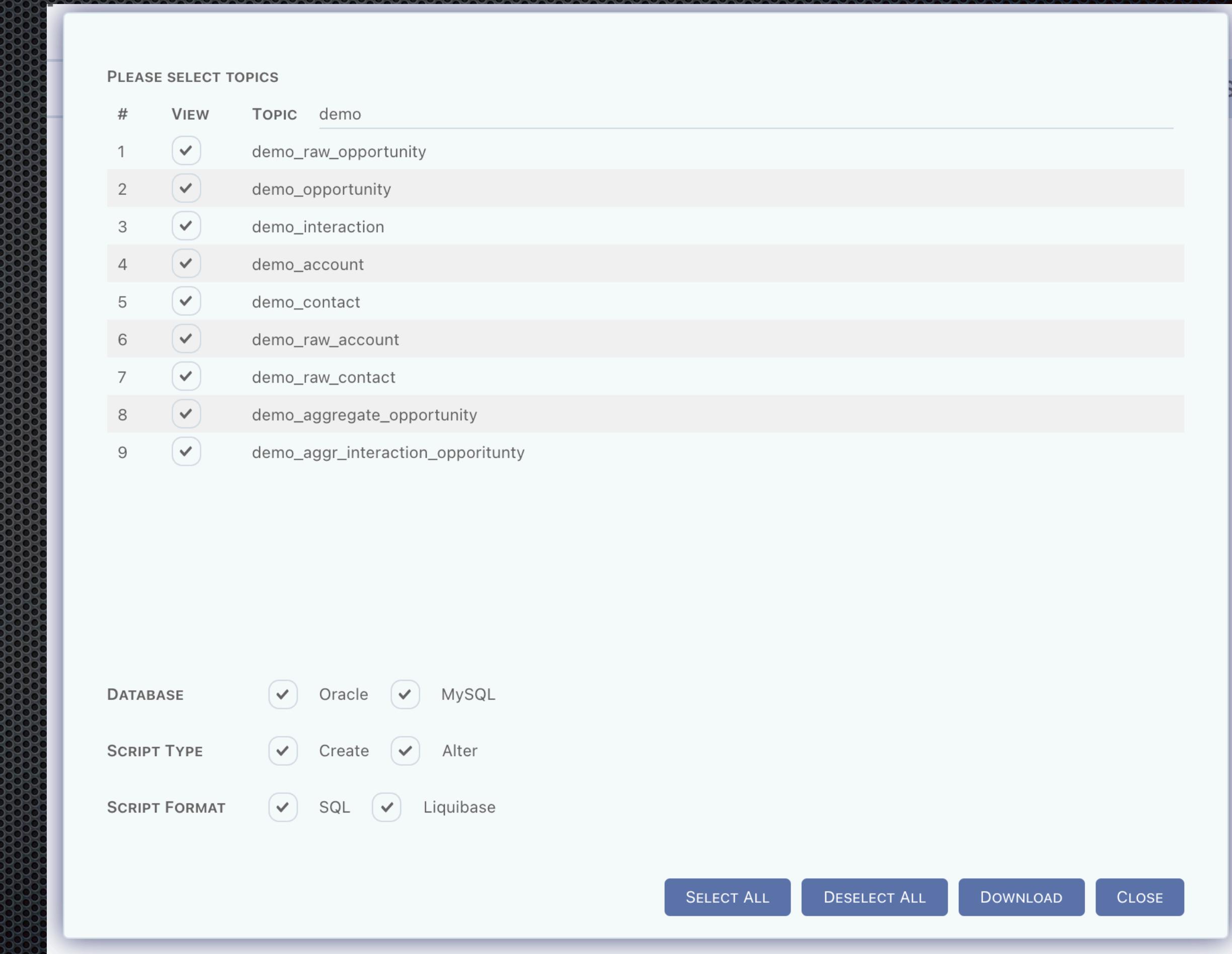
After Run: demo_raw_opportunity

#	opportunity_name	status	priority	owner	account	estimated_value	proposal_deadline	exp
1	BPS Pilot	Qualification	Medium	Jess Patel	Bear Paw Solutions	10000		
2	Timbershadow expansio...	Qualification	Very high	Casey Park	Timbershadow	6154		

[CLOSE](#)

Deployment

- Watchmen cli and docker for release configuration data
- Watchmen provide script generate for topic



Dataset and Chart orchestrate

- Provide dataset navigation function to help business personnel quickly build datasets
- BI chart feature for build data visualization

The image displays three screenshots illustrating the integration of dataset management and BI charting:

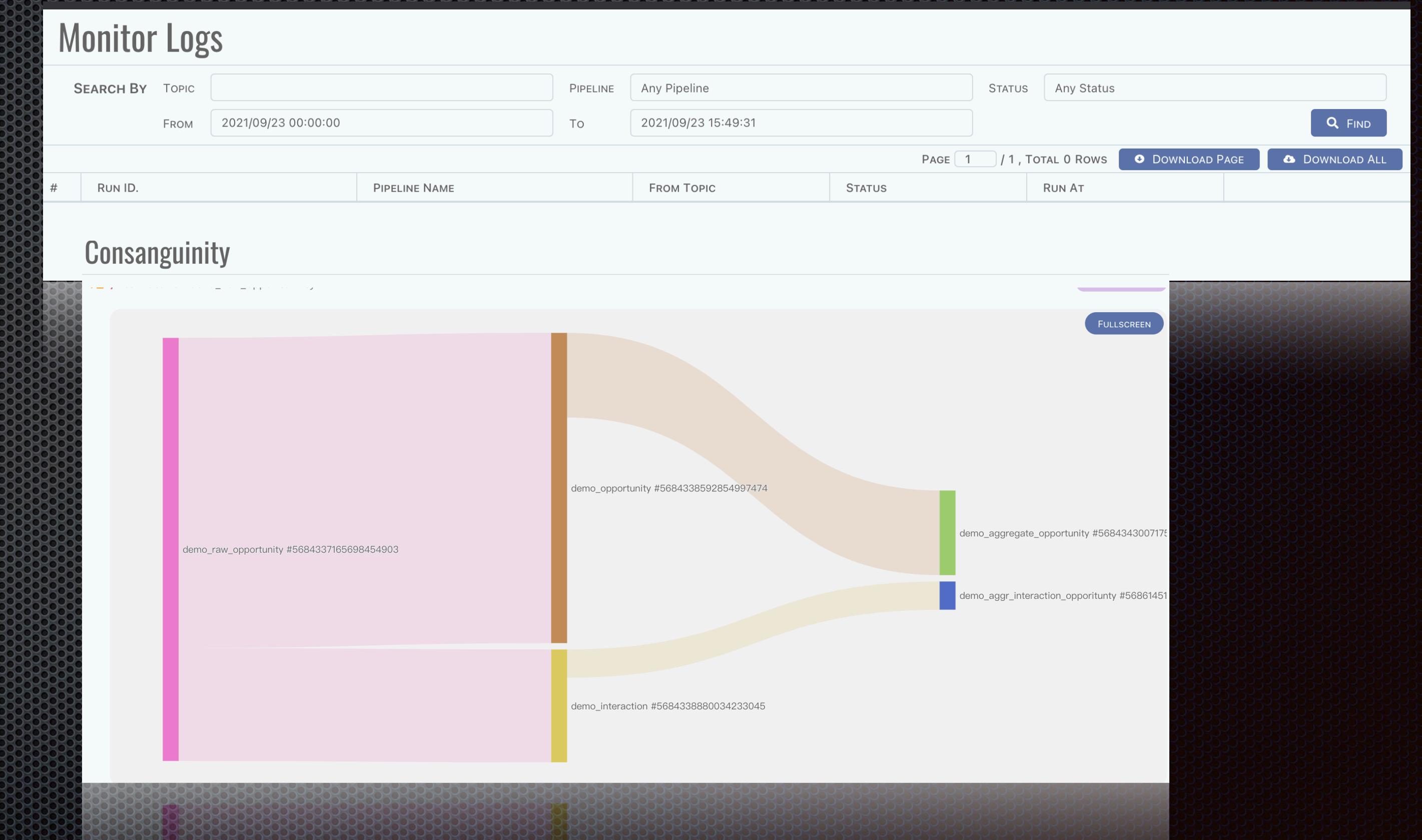
- Subject dd:** A screenshot showing the "Pick Topics" step of a dataset creation process. It lists two topics: "demo_aggregate_opportunity" and "demo_opportunity". To the right, a vertical sidebar provides navigation links for steps 2 through 5, including "Define Columns", "Filter Data", "Set Joins", and "Overview".
- Dataset:** A screenshot of a dataset view titled "Dataset". It shows a table with columns "#", "account", and "value". The data rows are:

#	account	value
1	1	Bear Paw Solutions
2	2	Timbershadow
3	3	Acetube
4	4	Leonard Krower & Sons
5	5	Bear Paw Solutions
6	6	Sunlight Intelligence
7	7	Robinetworks
- Report Zi00NmlwYTUO:** A screenshot of a report configuration interface titled "Report Zi00NmlwYTUO". It includes a "Report Settings" panel on the left with options for "TYPE" (Pie), "INDICATORS" (value, Sum), "DIMENSIONS" (account), and "DATA TRUNCATION" (None, Count 20). To the right is a "Basic Style" panel for a pie chart, featuring a large pie chart with various segments labeled by account name and percentage. The chart data is summarized below:

Account	Value	Percentage
Wolf Motors	17,252	3.61%
Timbershadow	6,154	1.29%
Sunlight Intelligence	30,260	6.32%
Robinetworks	44,728	9.34%
Revelationnetworks	18,443	3.85%
Payless Cashways	36,952	7.72%
Owlimited	39,203	8.19%
Leonard Krower & Sons	9,767	2.04%
Jay Jacobs	27,248	5.69%
Huyler's	35,700	7.46%
Galerprises	57,539	12.02%
Eagle Food Centers	18,714	3.91%
Edge Yard Service	23,503	4.91%
Elek-Tek	16,616	3.47%
Acetube	15,133	3.16%
Bear Paw Solutions	34,791	7.27%
Acepoly	46,688	9.75%

Monitor

- Pipeline execution monitor
- Query monitor
- Data Quality monitor (DQC feature)



Data Security

- Data mask
- Role based access control
- Encryption with user controlled keys - KMS or In-storage

The screenshot shows a data configuration interface with two main sections. The top section displays a list of fields with their properties:

Index Group	Type	Label	Default Value	Encryption	Masking Options	
Group 1	Date	Date	Date of Birth	No Index	None	None
Group 2	Text	Primary Contact	primary_contact_for	No Index	Label	Mask Day
Group 3	Text	Account Industry	account_industry	No Index	Default Value	Mask Month
Group 4	Text	Primary Contact Name	primary_contact_for	No Index	Encryption	Mask Month & Day

The bottom section shows detailed configuration for fields #10 and #11, with a dropdown menu open for field #10's masking options:

Name	Type	Label	Default Value	Encryption	Masking Options
#10 Name	Phone	primary_contact_for		No Index	None
#11 Name	Text	account_industry		No Index	Label

The dropdown menu for field #10's masking options includes:

- None
- Mask Day
- Mask Month
- Mask Month & Day
- None
- None
- Mask Center 3 Digits
- Mask Center 5 Digits
- Mask Last 3 Digits
- Mask Last 6 Digits
- AES256 PKCS5 Padding

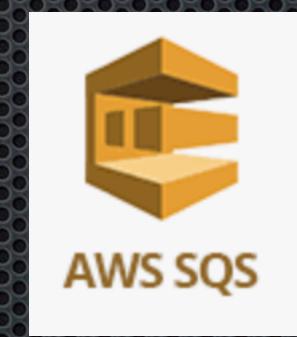
Support Datasources



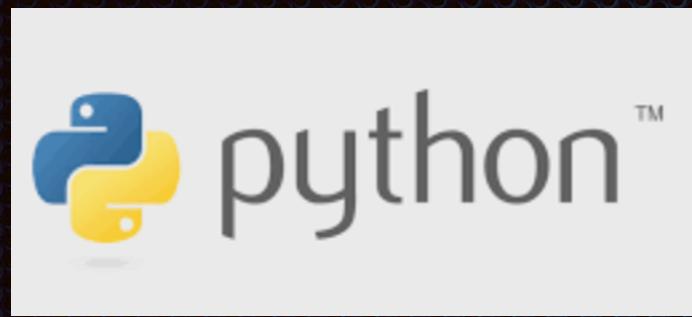
And special or raw topic



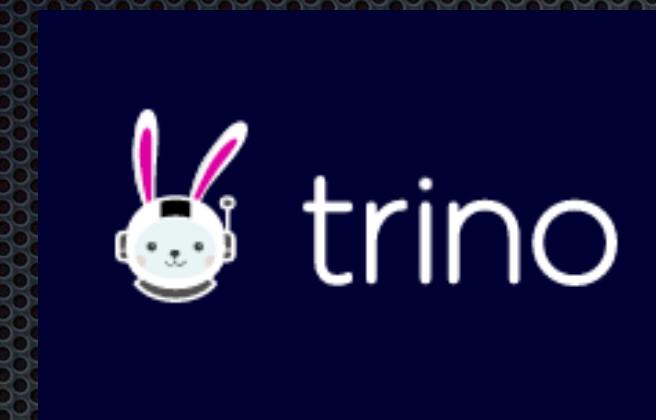
Support Connections



Support compute engine



Support sql engine



Thank You