



ENTRINSICON
LEVEL UP!

September 26th-29th, 2023
Raleigh, NC

Connecting to Different Data Types

Randall Williams, Director of Training

Agenda

- 1 The Usual Suspects
- 2 Simple Uploads
- 3 Unique & non-standard SQL Connections
- 4 REST API & Web Queries
- 5 Plugins

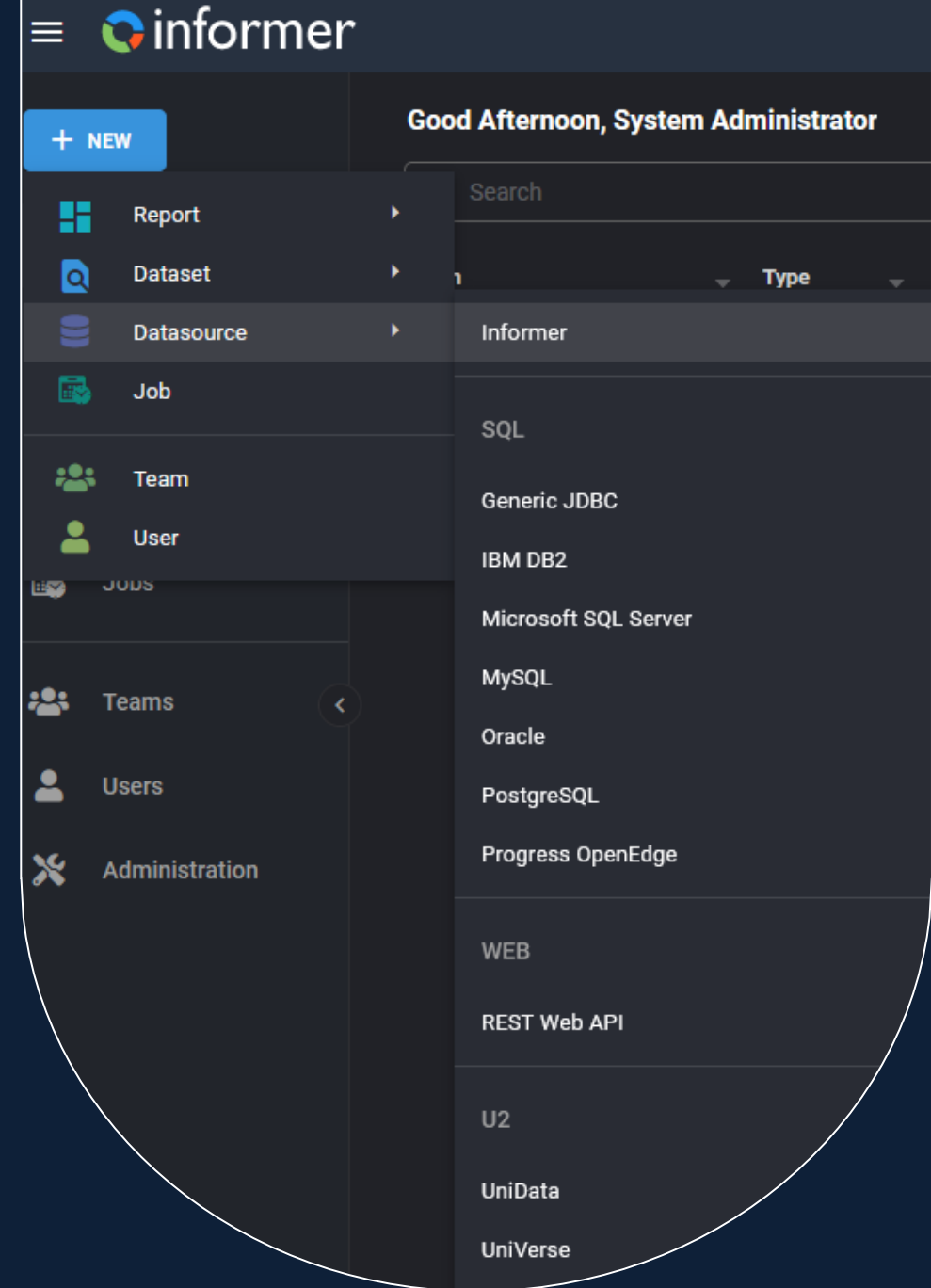
Randall Williams

Director of Training



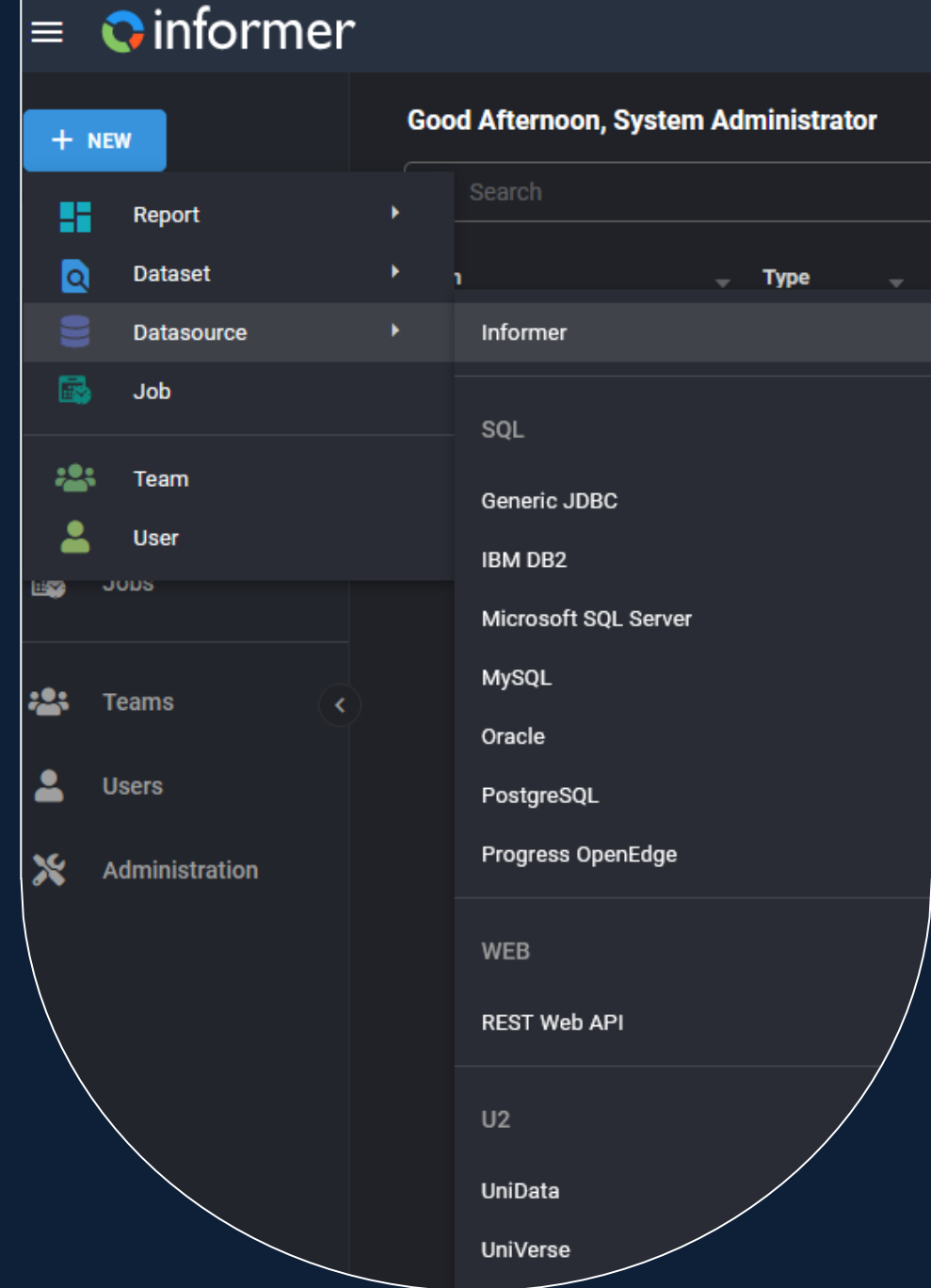
The Usual Suspects: SQL

- MS SQL Server
- MySQL
- Oracle
- PostgreSQL
- Progress OpenEdge
- IBM DB2



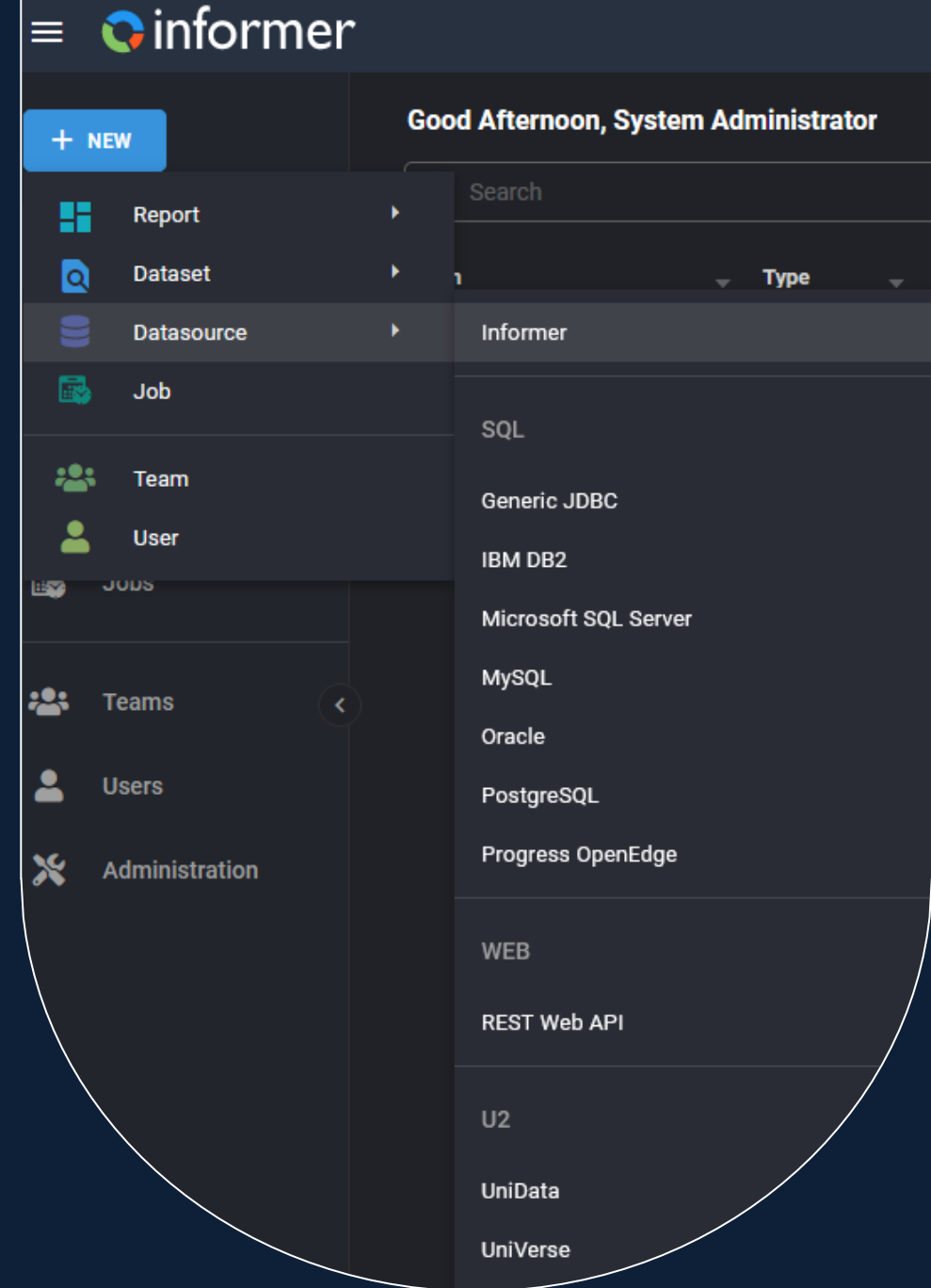
The Usual Suspects: Informer

- Actually a PostgreSQL Connection
- Informer's Metadata
- Comes with pre-built Links



The Usual Suspects: U2

- Universe
- UniData



Simple Uploads: Workspaces

- Behaves like SQL Datasources
 - Security
 - Mappings
 - Fields
 - Links
- Build Queries
- Replace or Append

Import Data

Upload CSV files to create a new Mapping on the Datasource

MOCK_people.csv

6 columns found

File encoding

utf8

Header From File

Field Name 

email

email

first_name

first_name

gender

gender

id

id

ip_address

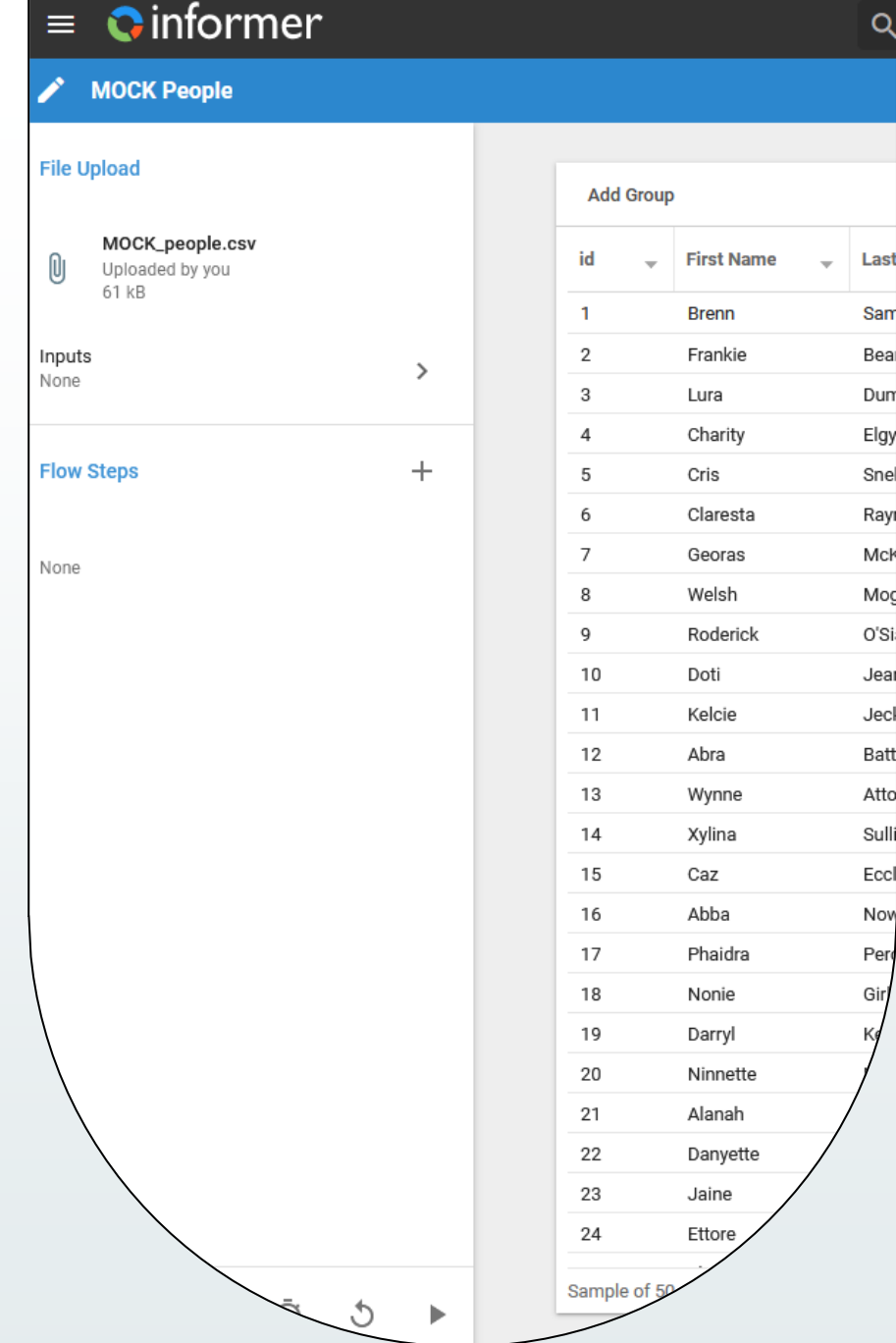
ip_address

last_name

last_name

Simple Uploads: Datasets

- Behaves like other Datasets
- Edit and replace data instead of Refresh
- Less feature-rich, but simpler to use
- Requires fewer permissions



Unique & Non-Standard SQL: JDBC

- Java DataBase Connection
- Actually pretty standard
- Requires adding files to the server
- Requires some database-specific details
- Most SQL Databases have a JDBC Driver and some documentation

Generic JDBC

Provide connection settings to the Datasource.

Name *

|

Connection String *

Driver Class

Connection Properties

ADD PROPERTY

Key

=

Value

Key

=

Value

Key

=

Value

Schema Name

Multiple Schemas

Max Remote Field-Pairing Buffer Size *

000

Use Prepared Statements

ation Level

Unique & Non-Standard SQL: FDW

- Point to a CSV in a known location
- Queries Run against that CSV like it's a SQL Table
- Like a Workspace table, but without the manual uploads!
- PostgreSQL Feature
- Requires some setup

Unique & Non-Standard SQL: Foreign Data Wrapper

Informer Query



Informer treats the Foreign Table as a normal SQL Table.
The Query is the same type with which Users are familiar.

PostgreSQL



Any PostgreSQL server can define a Foreign Data Wrapper as a Foreign Table.
This can be the Postgres Server that holds Informer's metadata, or a totally separate Postgres Server!

CSV File



Export data from some other service to a CSV File or create one with a program like Microsoft Excel.
This file can be stored in any folder that Postgres can read from, including on a network drive.

REST API & Web Queries

- Both use REST
- Web Queries are a REST Client (requesting and receiving data)
- REST API refers to a REST Server (providing responses and data)
- Terminology for Clarity

Web Queries

- Web Datasource – connection to the host
- Web Query – defined requests to specific routes
- How it works:
 - Issue Web Request
 - Receive JSON Data as a Response
 - Format Data into easily used Informer data

Datasource Connection

Provide connection settings to the Datasource.

Authorization

Bearer Token

Token *

Base URL

<https://reqres.in/api>

Global Request Options

Allow POST Requests

Strict Response Content Negotiation

Timeouts & Timers

Request Timeout (ms)

5000

Streamed Record Timeout (sec)

1800

Default 429-status Retry Interval (sec)

Web Queries

The screenshot shows the Informer web interface. At the top, there is a search bar with the text "Search anything (Ctrl + Space)...". Below the search bar, the breadcrumb navigation reads "Home / Datasets / ReqRes Users / Editor". The main content area is titled "Edit: Method & URL" and contains a table with two columns: "Method" and "URL". The "Method" column has a dropdown menu with "GET" selected. The "URL" column contains the text "https://reqres.in/api/users". On the left side, there is a sidebar with various configuration options: "Web Query", "Datasource" (ReqRes Training REST Environment), "Method & URL" (GET /users), "Parameters" (None), "Headers" (None), "Pre-Request Script" (None), "Response Parser" (Custom Script), "Inputs" (None), and "Flow Steps".

Datasource Connection

Provide connection settings to the Datasource.

Authorization

Bearer Token

Token *

Base URL

https://reqres.in/api

Global Request Options

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Timeouts & Timers

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REST API

The screenshot shows a REST client interface with the following details:

- Method:** PUT
- URL:** http://localhost/api/datasets/admin:my-dataset/data
- Body Type:** raw (selected)
- Body Content:** A JSON array of four employee records.

```
1 [
2   → {"Name": "John Doe", "2018 Sales": 16000, "Store Location": "NC", "Hire Date": "2014-01-01T12:00:00.000+5:00"},
3   → {"Name": "Joe Smith", "2018 Sales": 0, "Store Location": "NY", "Hire Date": "2019-03-01T5:00:00.000+5:00"},
4   → {"Name": "Allison Smith", "2018 Sales": 440.60, "Store Location": "NY", "Hire Date": "2018-01-09T12:00:00.000+5:00"},
5   → {"Name": "Diane Barker", "2018 Sales": 251375.99, "Store Location": "CA", "Hire Date": "2015-10-27T12:00:00.000+8:00"}
6 ]
```

Plugins

- Lots of access for Plugins
- Most common type is new Datasources
- Provided via Consulting or write your own
- Written in NodeJS

Plugins

informer Search anything (Ctrl + Space)... Randall Williams

Salesforce Home / Datasources / Salesforce / Mappings

Settings Mappings Links Suites Features Access Comments

Mappings

Mapping Sets Visibility

Mapping	Table	Mapping Sets	Hidden
Accepted Event Relation	AcceptedEventRelation		
Access	WorkAccess		
Access Share	WorkAccessShare		
Account	Account		
Account Contact Relationship	AccountContactRelation		
Account Contact Role	AccountContactRole		
Account Feed	AccountFeed		
Account History	AccountHistory		
Account Partner	AccountPartner		
Account Share	AccountShare		
Action Link Group Template	ActionLinkGroupTemplate		
Action Link Template	ActionLinkTemplate		
Activity History	ActivityHistory		Hidden

Account

Information

Mapping Sets

Table Account

Created Jun 30, 2020 at 12:25 PM GMT-5

Last Modified Jun 30, 2020 at 12:25 PM GMT-5

Fields 45

informer

+ NEW


- Report
- Dataset
- Datasource
- Job
- Team
- User
- Teams
- Users
- Administration

Search

Informers

- Informers
- Salesforce
- SQL
- Generic JDBC
- IBM DB2
- Microsoft SQL Server
- MySQL
- Oracle
- PostgreSQL
- Progress

Plugins

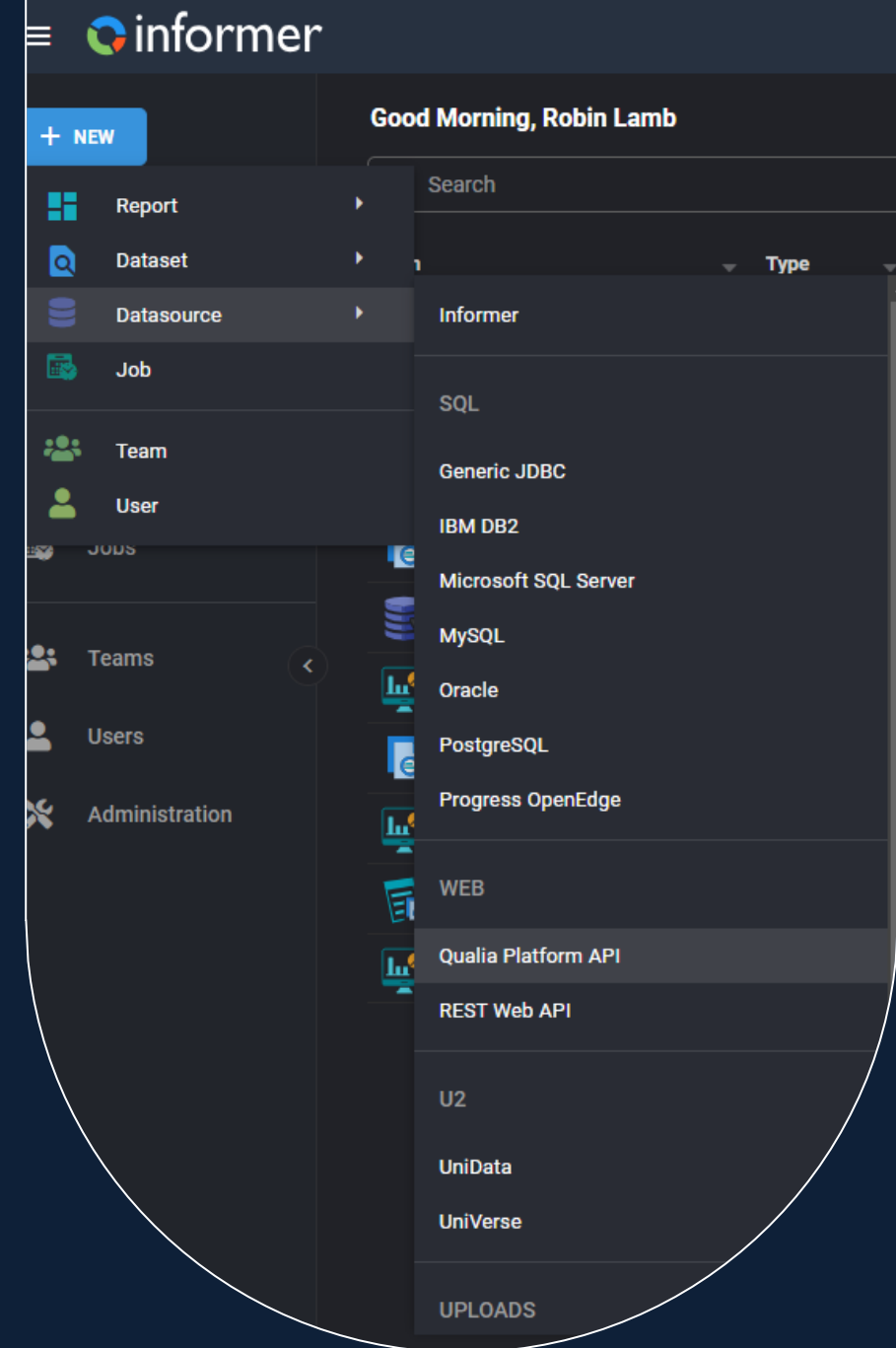
 **Orders (updated data types)**

Query ⋮

Entrypoint Mapping
Qualia Platform > ordersList

Path to Results
Nested: OrdersConnection.edges.node

Fields +
acceptanceDate, cancelledDate,
contractDate, createdDate,
disbursementDate + 34 more...

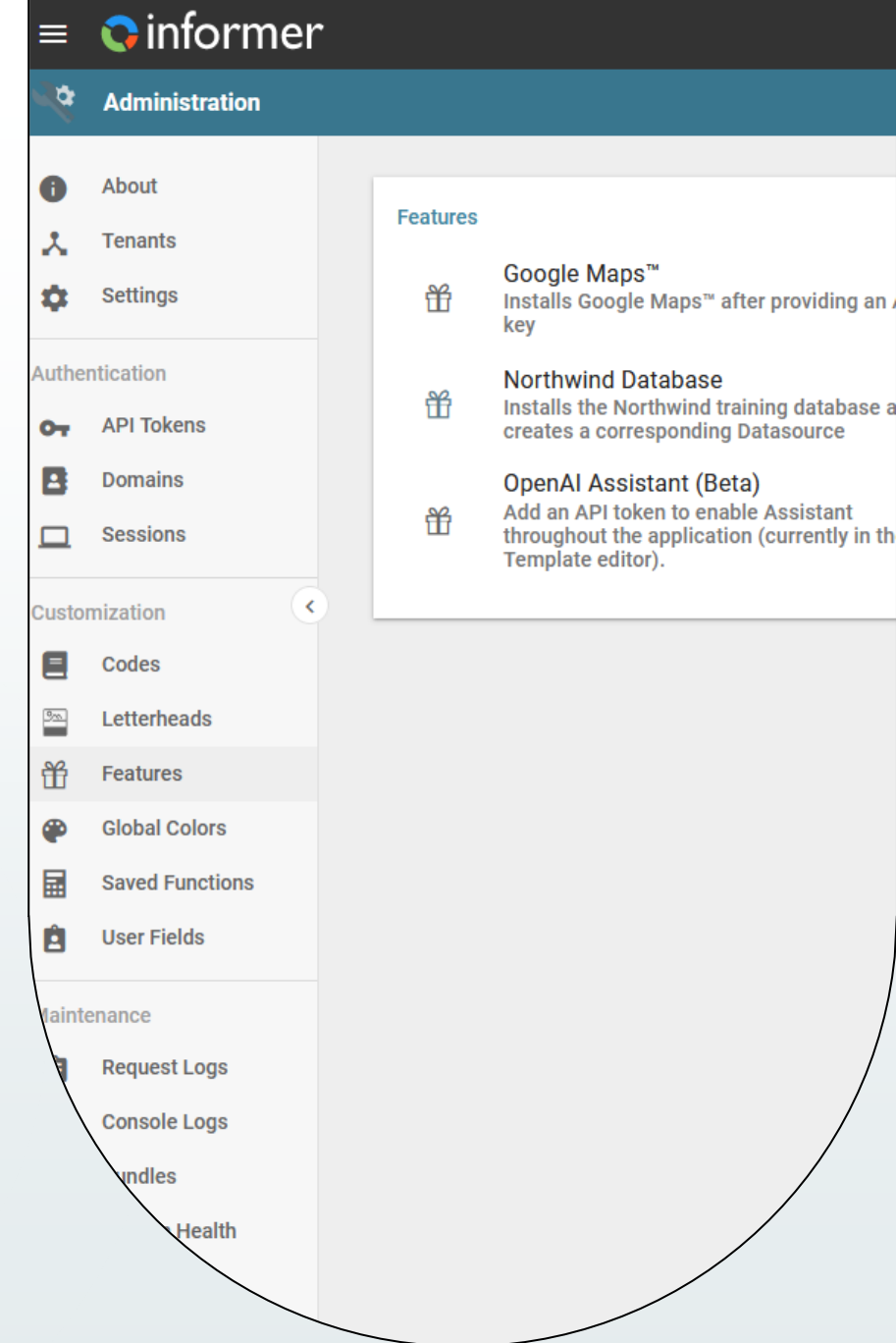


The screenshot shows the Informer application interface. At the top, the user is logged in as "Good Morning, Robin Lamb". A navigation menu on the left includes options like Report, Dataset, Datasource, Job, Team, and User. The "Datasource" menu is open, displaying a list of available data sources. The "Qualia Platform API" option is highlighted.

Search	Type
	Informer
	SQL
	Generic JDBC
	IBM DB2
	Microsoft SQL Server
	MySQL
	Oracle
	PostgreSQL
	Progress OpenEdge
	WEB
	Qualia Platform API
	REST Web API
	U2
	UniData
	UniVerse
	UPLOADS

Honorable Mention: Northwind

- Administration Feature
- Not your real data
- Industry standard dummy data
- Very quick to set up
- Great for training and practice





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Q & A



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Thank You