



Anya Prosvetova

Tableau DataDev Ambassador
The Information Lab UK



Build a Data Dictionary with Tableau's Metadata API



Tableau Developer Tools

Automation / Integration

Automate tedious tasks, create custom workflows and manage Tableau content

REST API

Webhooks

Metadata API

TSC

Hyper API

TSM

Extensibility

Give dashboards new capabilities, and integrate them with other applications

Advanced Analytics

Integrate Tableau with advanced models in R, Python, and Matlab

Embedding

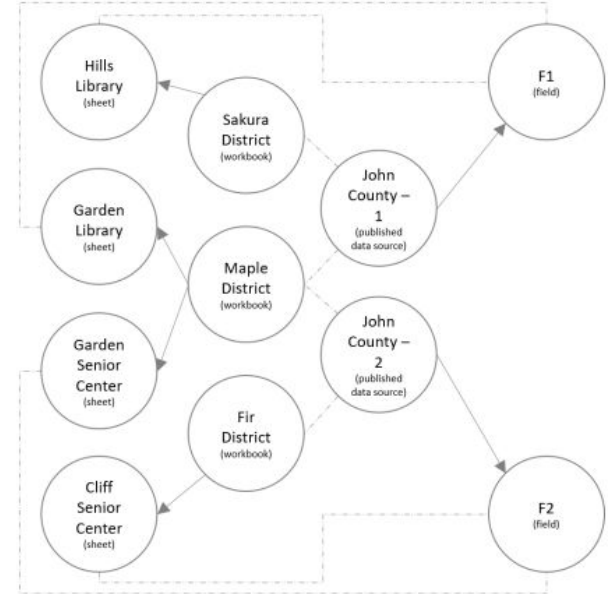
Embed Tableau content into other applications

Data Connectivity

Get any data into Tableau via custom connector or extract

What is Tableau's Metadata API?

- Relationships between content & external assets
- Data Management Add-on & Tableau Catalogue
- Authorized users
- GraphQL language
- Metadata API vs REST API



Accessing the Metadata API

- Using **GraphiQL** from Tableau Server / Tableau Online

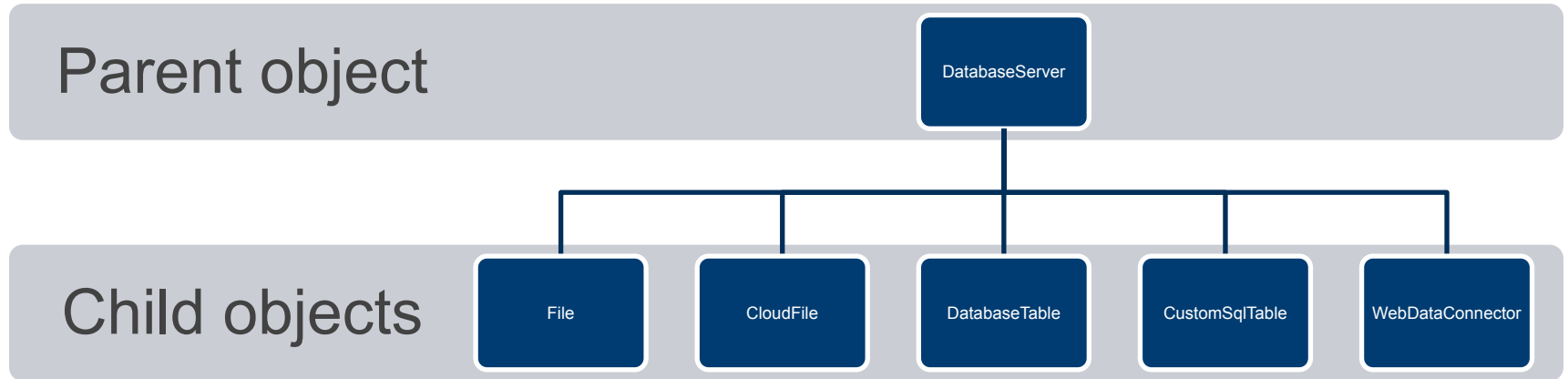
The screenshot shows the Tableau External Assets interface. On the left sidebar, the 'External Assets' menu item is highlighted with a red box. In the main content area, the 'Query metadata (GraphQL)' option is highlighted with a red box. A red line connects the two boxes. Below the screenshot, the URL `https://<your-tableau-server>/metadata/graphiql` is provided.

Type	Name	Workbooks	Data Sources	Server / Path	Connection Type	Contact
Database	superstore world	31	4	superstore world (demodatabase.c5c9e2pjmpzh.us-west-2.rds.amazonaws.com)	Microsoft SQL Server	Eli Blankers
File	Populations	0	0	google sheets 1qGfz5-3HJhjnVJN8WIKhAPksUWxZNFximLTPt8a98	Google Sheets	Eli Blankers

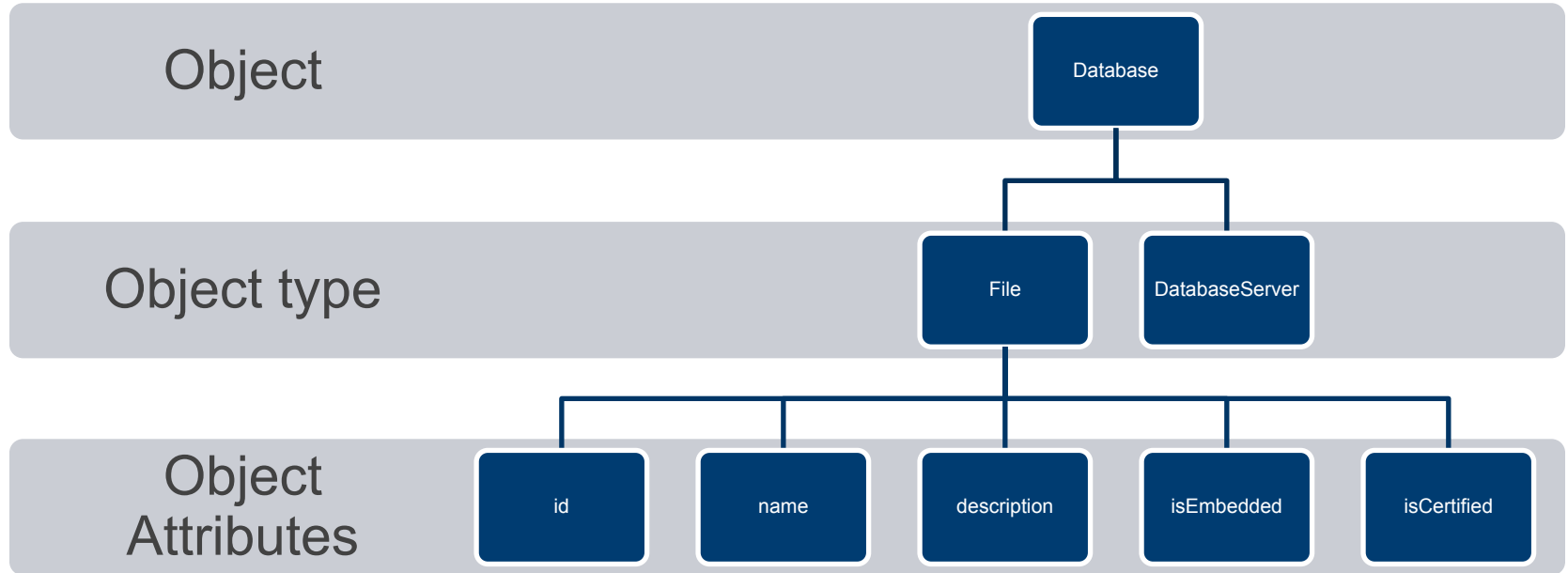
`https://<your-tableau-server>/metadata/graphiql`

- Using **REST API**

Object relationships in the Metadata model



Object relationships in the Metadata model











Writing GraphQL queries

```
query <query-name> {  
  <object> <arguments> {  
    <attribute>  
    <attribute> {  
      <attribute>  
    }  
  }  
}
```

Demo: Building a Data Dictionary

List of calculated fields as of 21/10/2020 15:45:48

Workbook	Calculated Field	Formula	Data Type	Field Description	
How many workbooks I have created	Owner	SPLIT([Owner Name], '@', 1)	STRING	No description	
	Average attendance time in min	[FirstPumpArriving AttendanceTime]/60	REAL	No description	
AVG arrival time - above/below		IF AVG([Average attendance time in min]) > AVG([Avg arrival time - goal]) THEN 'above' ELSE 'within' END	STRING	No description	
	Avg arrival time - goal	6	INTEGER	No description	
Deliberate vs Accidental Colour		IF CONTAINS([Incident Type_LFB], 'deliberate') then 'deliberate' else 'accidental' end	STRING	No description	
	Dynamic date	window_max (max ([Date_LFB]))	DATE	No description	
London Fire Brigade incidents attended between 2013 - 2017	Max date	WINDOW_MAX(Max([Date_LFB]))	DATE	No description	
	Max date - stations	WINDOW_MAX(Max([Date Of Call]))	DATE	No description	

FILTERS

Project Name
[All] ▼



Workbook Name
[All] ▼

Workbook Tag
[All] ▼

Datasource
[All] ▼

Calculation Name

Workbooks with warnings

-  OK
-  Warning

Designed by Anya Prosvetova / @anyaltica

Learn more about Tableau's Metadata API



Watch tutorials by Tableau DataDevs and the community

Search for 'Tableau datadev' on YouTube



Read Tableau's Metadata API documentation

https://help.tableau.com/current/api/metadata_api/en-us/index.html



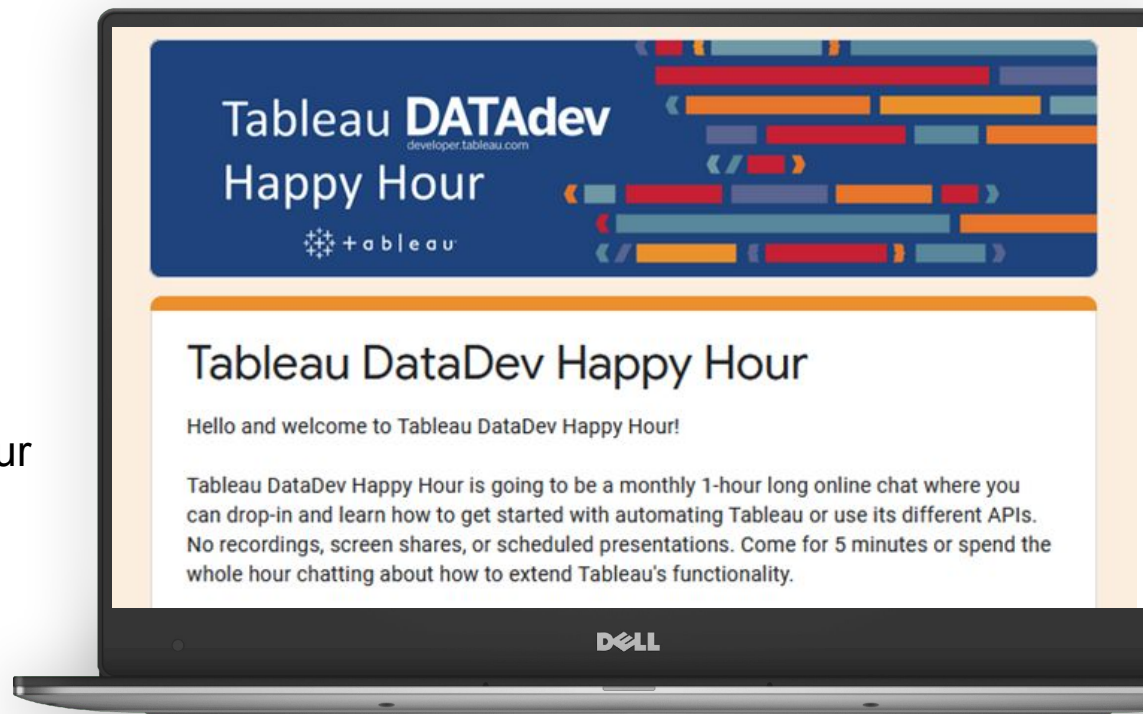
Join Tableau Developer Programme

www.tableau.com/developer



Join me at
**Tableau DataDev
Happy Hour**

bit.ly/TableauDataDevHappyHour



Questions?

Get in touch!



@anyalitica



prosvetova.com

Thank you!

