Introduction TriplyDB

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Timetable

15:00	Welcome & introductions [10]
15:10	**Organise & Publish [25] Kathrin**
15:35	**Navigate Data & Data Model [25] Kathrin**
16:00	Break [10]
16:10	**Query Data [25] Wouter**
16:35	**Create a Data Story [20] Wouter**
16:55	Evaluatie en afsluiting [5]
17:00	End

Organise & Publish

Access levels

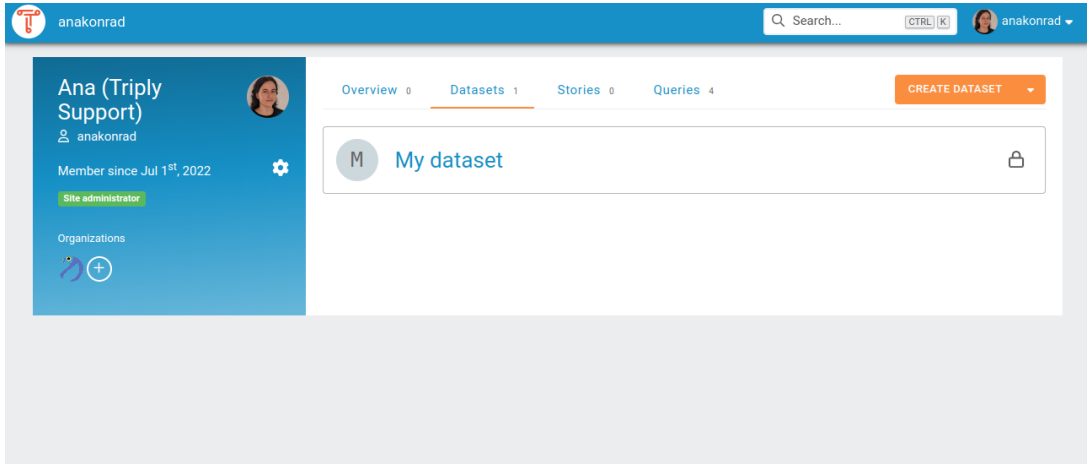
- **Datasets/Queries/Stories:**
  - **Private**: available to you or your organisation
  - **Internal**: available to logged in users
  - **Public**: available to anyone online
- **Organisation members**
  - Member
  - Owner
- **User**
  - Regular
  - Admin

Common scenarios:

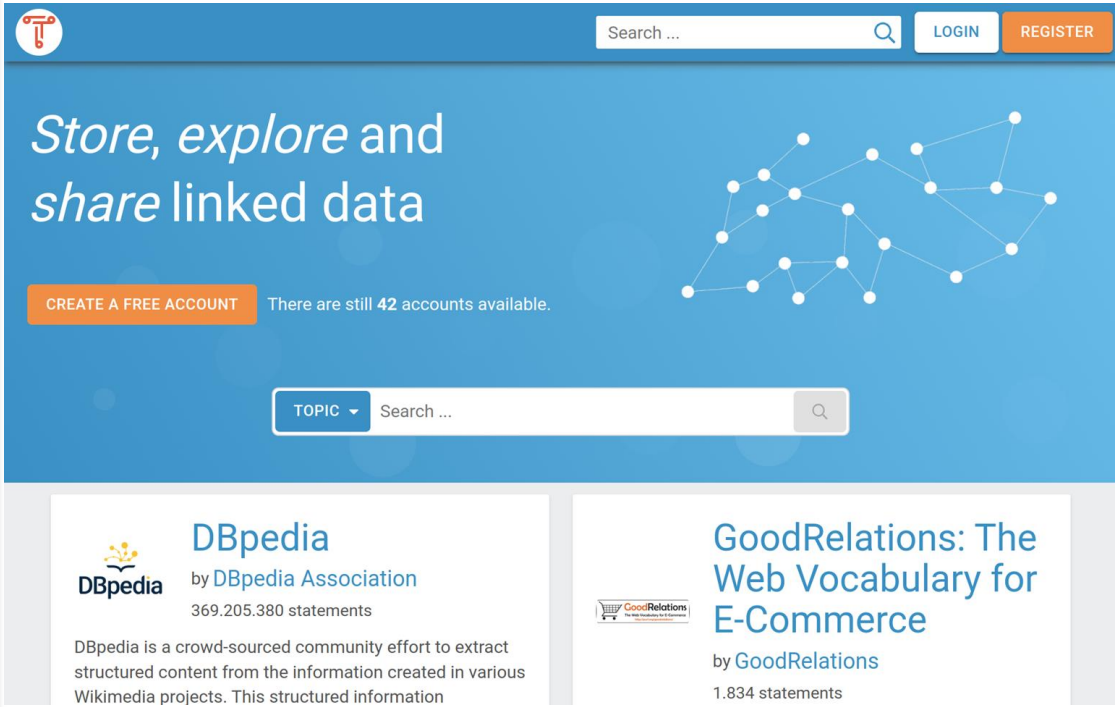
- **Private@User:** I want to work on dataset individually.
- **Internal:** Show our work to the rest of company.
- **Public:** Publish open data.

I want to work on a dataset individually

- ❑ **Log in**.
- ❑ **Add** a dataset.
- ❑ **Upload** data.
- ❑ Set the access level to "**Private**".



Log into your TriplyDB instance*



- Email and password
- SAML connection

Add a dataset*

Dataset name

Display name (optional)

Description (optional)

WRITE PREVIEW

Private

This dataset is only visible to members of this organization (and administrators)

Internal

Any logged-in user can view and query this dataset

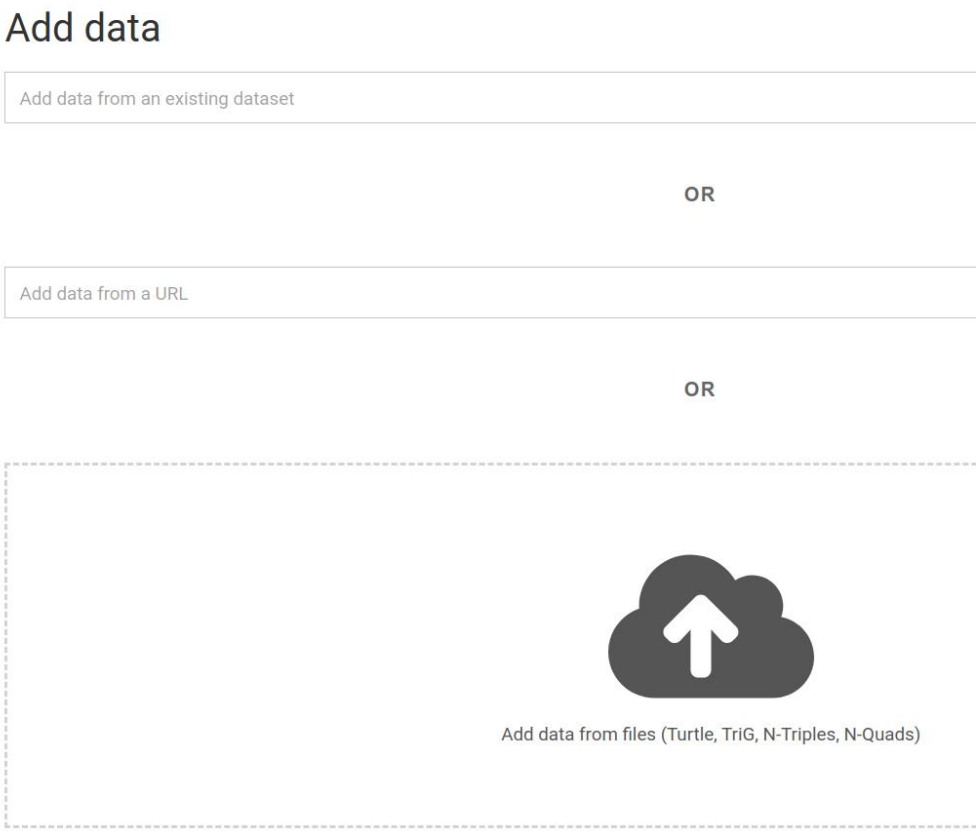
Public

Anybody can view and query this dataset

Add dataset Cancel

- Metadata: name, description
- Access level: private, internal, public
- Google indexing (Schema.org, DCAT)

Upload data*



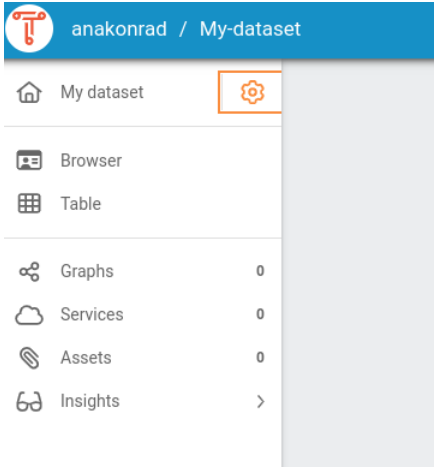
- Add data from:
  - Existing dataset
  - Remote URL
  - Local file
- Formats:
  - N-Quads
  - N-Triples
  - TriG
  - Turtle
  - JSON-LD
  - CSV
  - RDF/XML

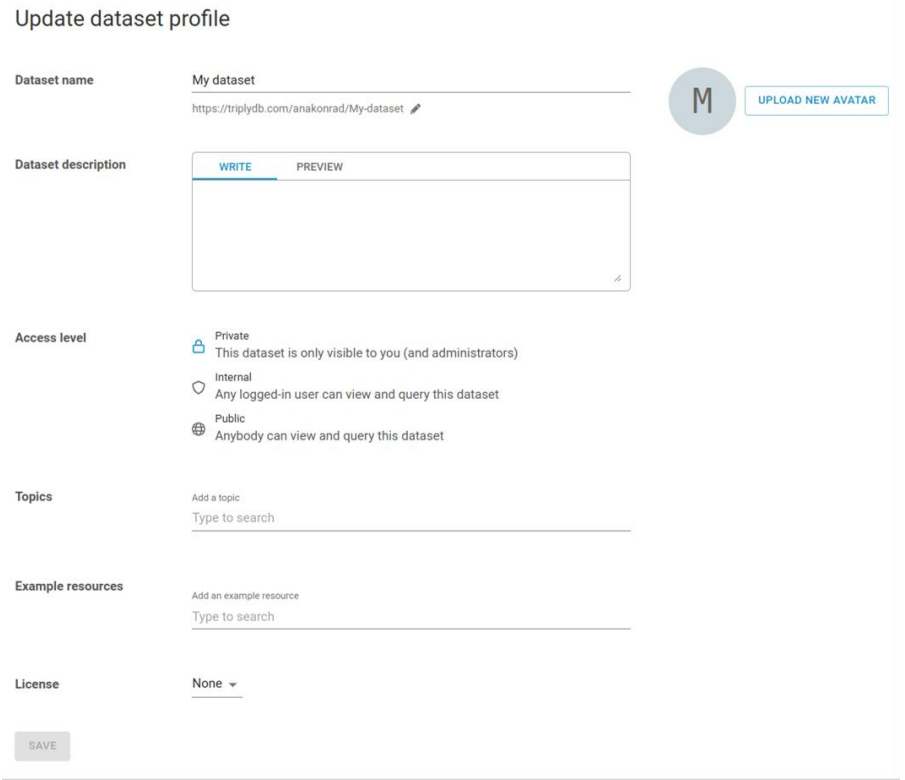
Exercise: Upload data

1. Go to your user account and create a dataset.
2. Upload either of the following:
   a. Your own RDF file(s)
   b. Your own CSV file (e.g. from the web)
   c. An open RDF dataset from the web: https://triplydb.com/Triply/iris/download.trig.gz

Change dataset settings (e.g. access level)

Go to dataset settings

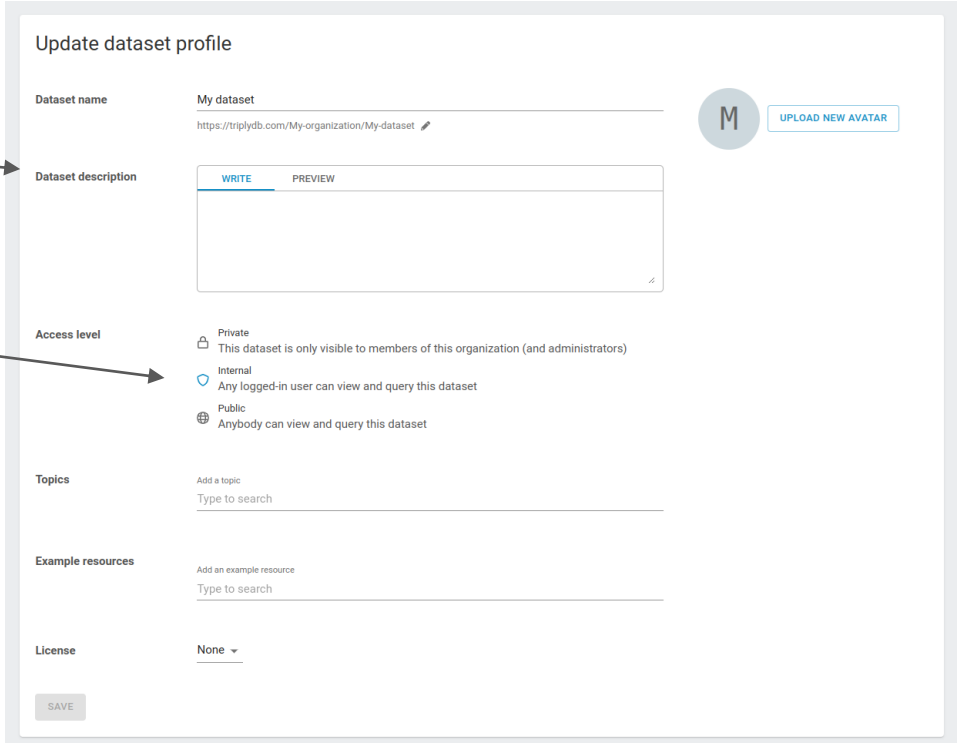




Show our work to the rest of PLDN

Add a dataset **description** (findability).

Set the access level to "**Internal**".

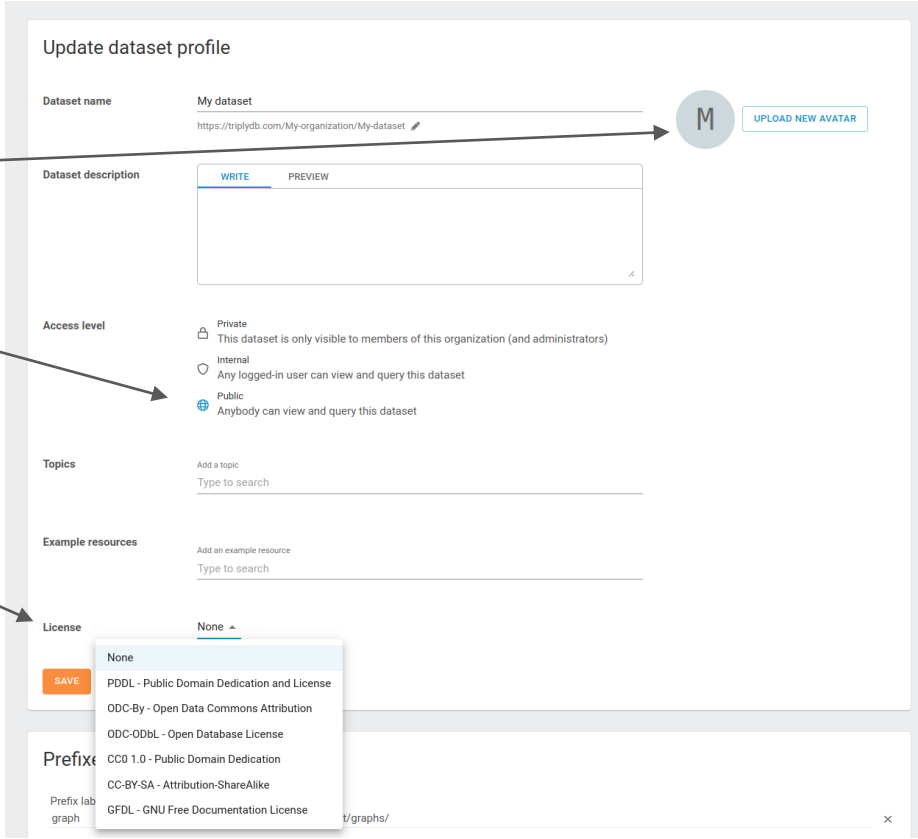


Make the data open to everyone

Upload a dataset **image**.

Set the access level to "**Public**".

Add a **license**.



CC

Automate data publication

https://triply.cc/docs

Automate data publication:

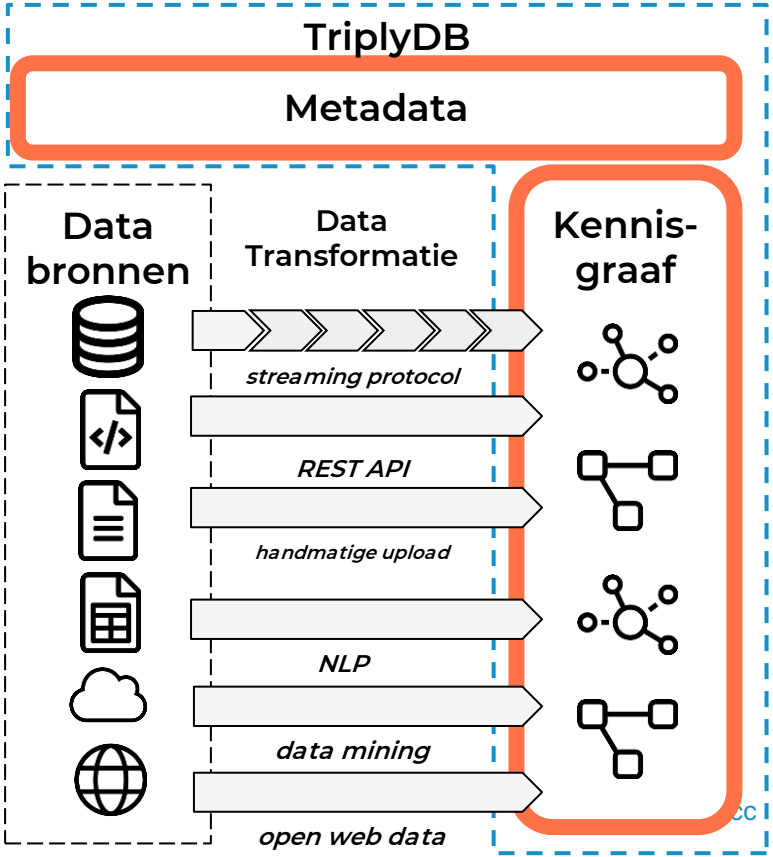
- Upload files (=> TriplyDB.js)
- Publish data from a pipeline (=> TriplyETL)

Secure handover:

- Create API Token (=> TriplyDB)

External applications:

- Configure Web Hooks (=> Web Hooks)



Navigate Data

LD Table (visit)

Subject	Predicate	Object	Graph
			https://triplydb.com/tripl... ×
floweringPlant:00001	qb:dataSet	dataSet:iris	*iris:instances*
floweringPlant:00001	rdf:type	dbo:Iris_setosa	*iris:instances*
floweringPlant:00001	rdfs:label	Instance 1 of the Iris Setosa	*iris:instances*
floweringPlant:00001	dimension:variety	dbr:Iris_setosa	*iris:instances*
floweringPlant:00001	measure:petalLength	1,4	*iris:instances*
floweringPlant:00001	measure:petalWidth	0,2	*iris:instances*
floweringPlant:00001	measure:sepalLength	5,1	*iris:instances*
floweringPlant:00001	measure:sepalWidth	3,5	*iris:instances*

- Subject, predicate, object, graph
- Prefix declarations (double click)
- Drag & Drop (subject ↔ object)
- Statements API (URL arguments)

LD Browser (visit)

Iris versicolor

Iris versicolor is also commonly known as the blue flag, harlequin blueflag, larger blue flag, northern blue flag, and poison flag, plus other variations of these names, and in Britain and Ireland as purple iris. It is a species of Iris native to North America, in the Eastern United States and Eastern Canada. It is common in sedge meadows, marshes, and along streambanks and shores. The specific epithet versicolor means "variously coloured".

Type

Comment

Iris versicolor is also common ..... or means "variously coloured".

Label

Iris versicolor
Iris versicolor

Depiction

https://triplydb.com/Triply/iris/assets/600844e8c826e6033db18beb

DBpedia class

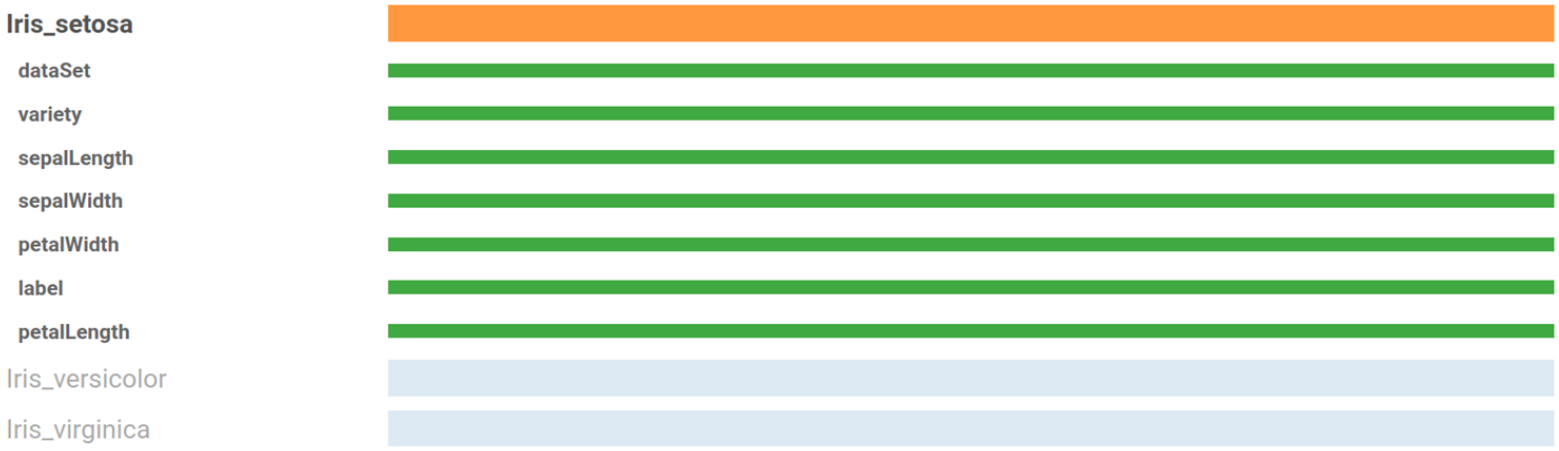
Iris versicolor

Average petal length

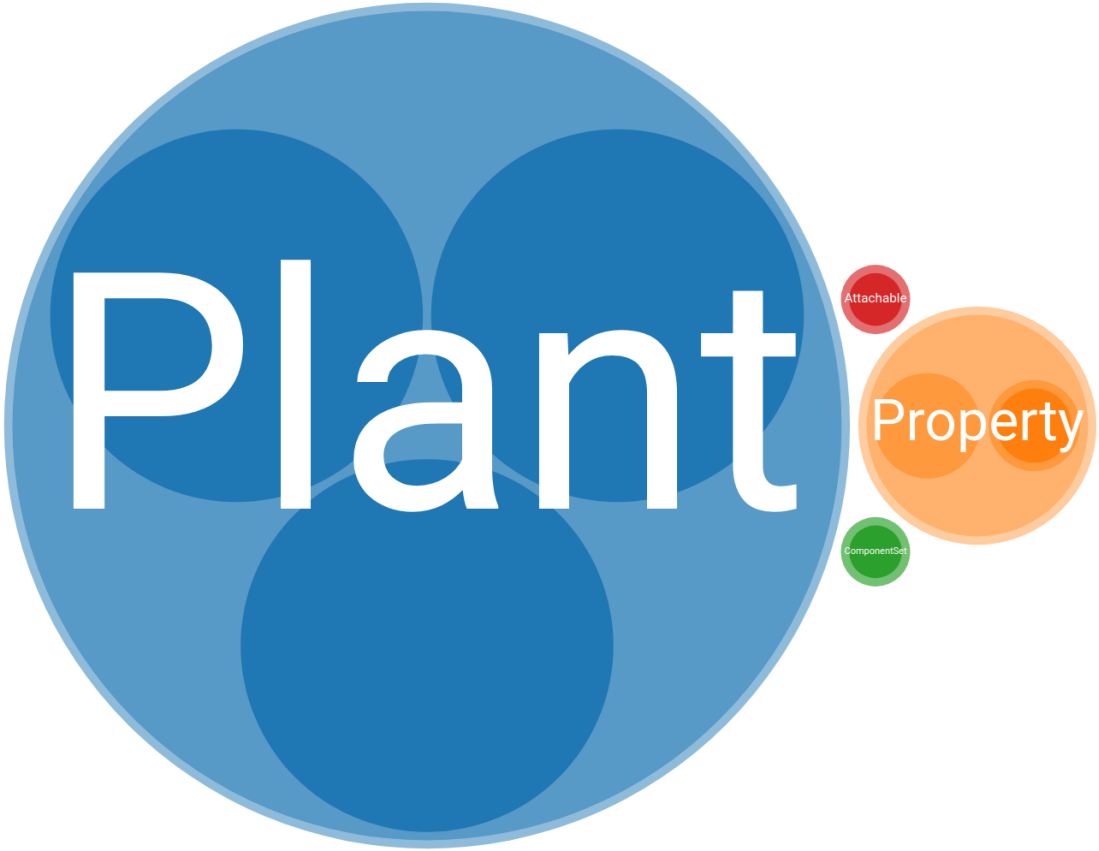
4,26

LD Insights: Class Frequency (visit)

https://triplydb.com/triply/iris/instances

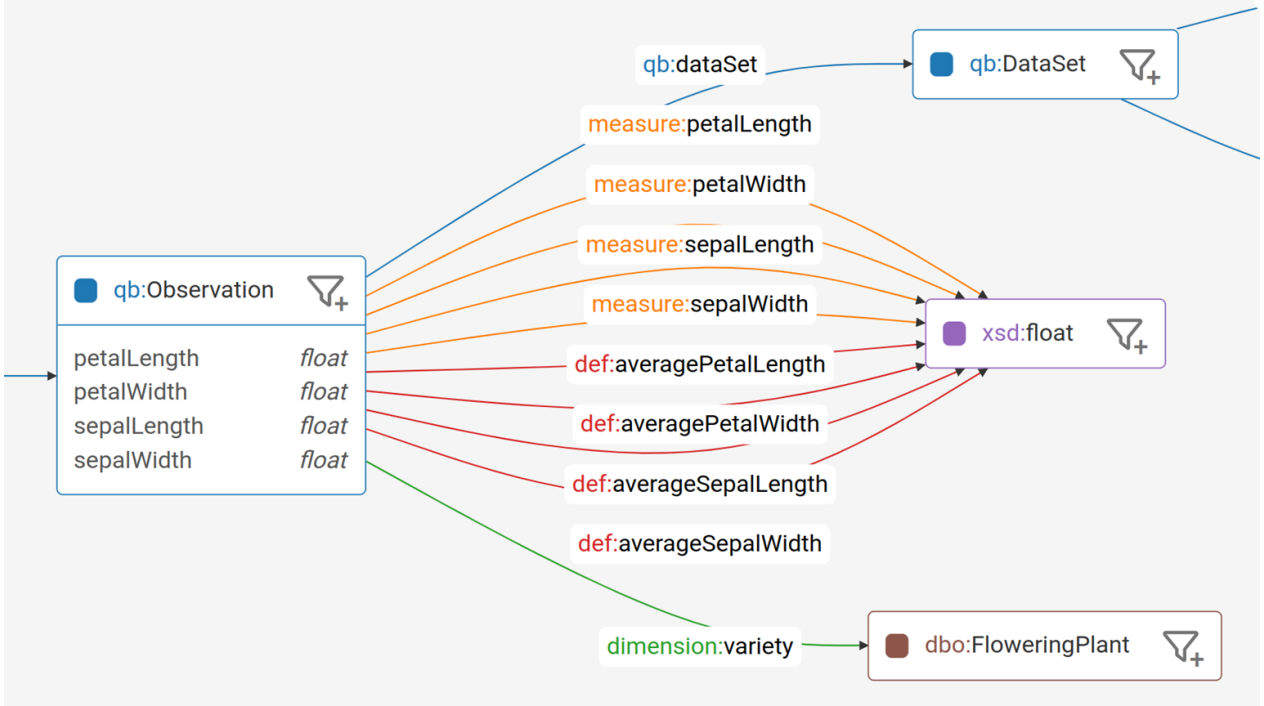


LD Insights: Class Hierarchy (visit)



LD Insights: Model (beta) (visit)

- Classes
  - Hierarchy
- Properties
  - Datatype properties
  - Object properties
- SHACL shapes
  - Node shapes
  - Property shapes



Do it yourself

- Look at your own data in LD Browser.
- Follow an *outgoing* link in your data.
- Follow an *incoming* link in your data.
- Obtain one insight based on your data (LD Insights).

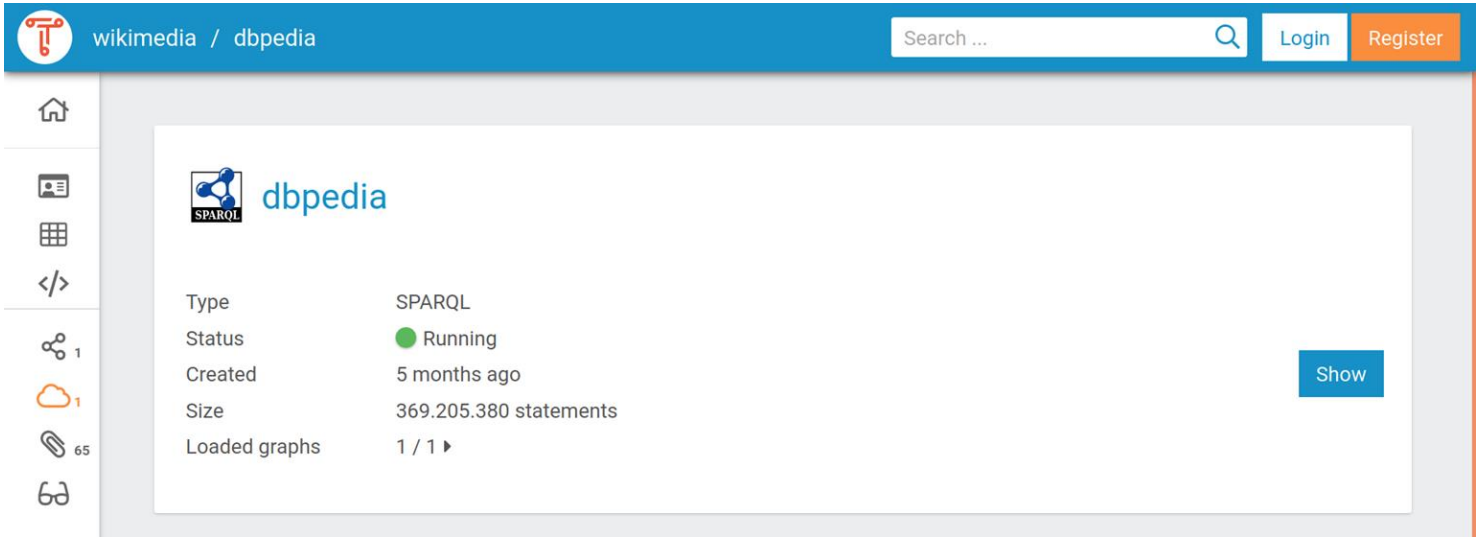
Example IRIs for LD Browser:

- http://dbpedia.org/resource/Iris_setosa
- http://dbpedia.org/resource/Iris_versicolor
- http://dbpedia.org/resource/Iris_virginica

Break (terug om 16:10)

Querying Data in TriplyDB

Start a service



- Service types: SPARQL, Jena, ElasticSearch
- Services are decoupled
- Use multiple services for load-balancing

Write a SPARQL query

Wouter / iris

Search ...

Wouter

Query

Service

default

SPARQL API at https://api.data.pldn.nl/datasets/Wouter/iris/services/default/sparql

```
1 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
2 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
3 SELECT * WHERE {
4   ?sub ?pred ?obj .
5 } LIMIT 10
```

Table | Response | Gallery | Chart | Geo | Geo-3D | Geo events | Pivot | Timeline

10 results in 0.196 seconds

Filter query results

Page size: 50

	sub
1	<http://purl.org/linked-data/cube#component>
2	<http://purl.org/linked-data/cube#dimension>
3	<http://purl.org/linked-data/cube#measure>

Configure a visualisation: network (visit)

Triply / queries / network-query

Search ...

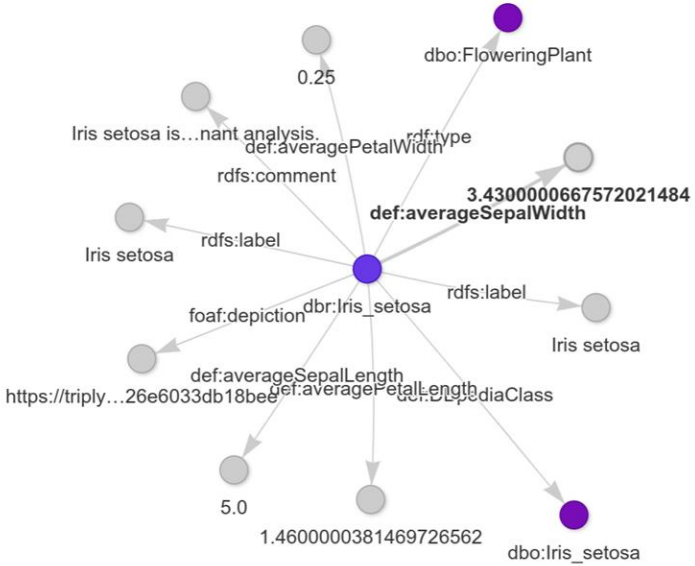
wouter

```
prefix dbr: <http://dbpedia.org/resource/>
construct where { dbr:Iris_setosa ?p ?o. }
limit 100
```

Table | Response | Gallery | Chart | Geo | Geo-3D | Geo events | Markup | Network | Pivot | Timeline

10 results in 0.139 seconds

medium



Create a query

Create query

Name

Display name (optional)

Dataset (with SPARQL service)

Always use the most up-to-date SPARQL service available.

Description (optional)

WRITE PREVIEW

Private

This query is only visible to you (and administrators)

Internal

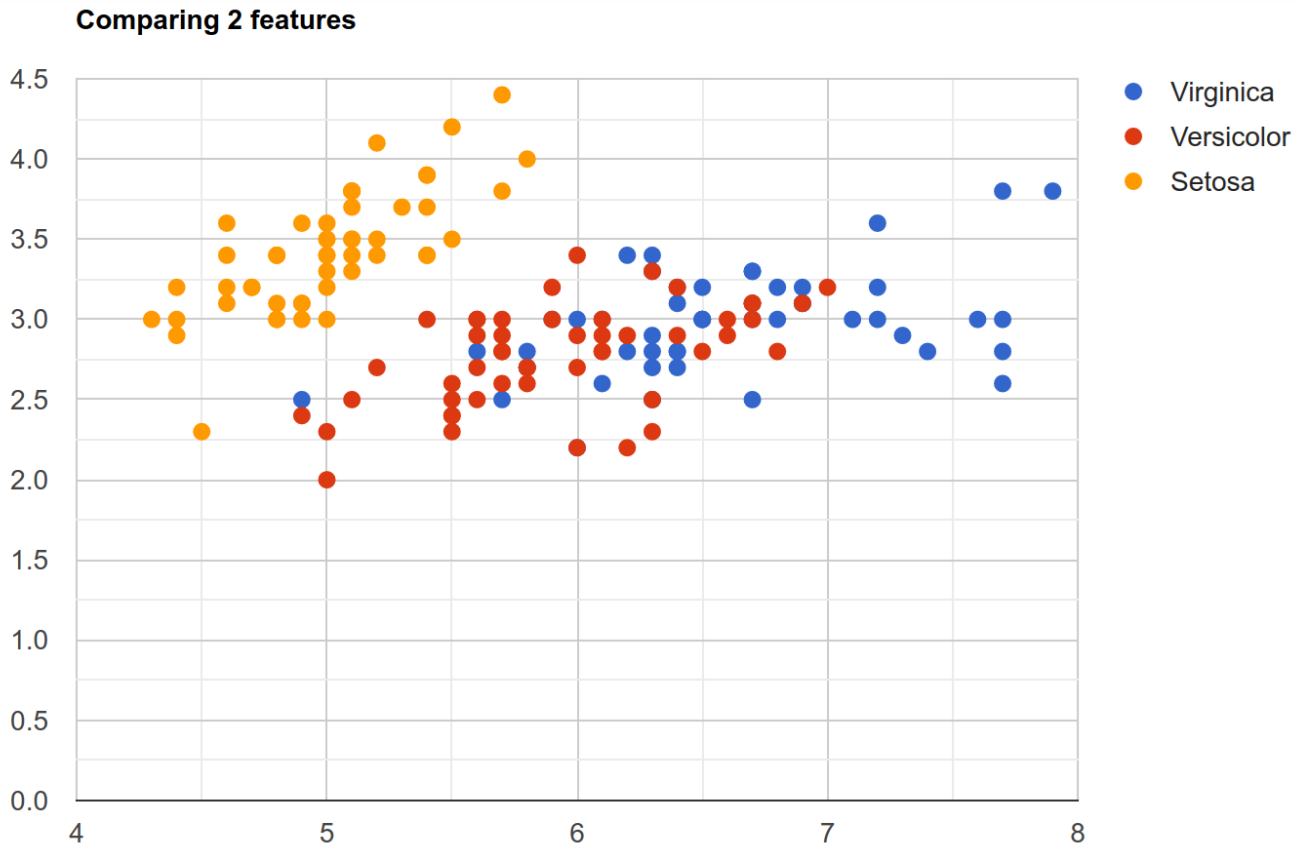
Any logged-in user can view and run this query

Public

Anybody can view and run this query

Create query Cancel

Configure a visualization: plots (visit)



Do it yourself

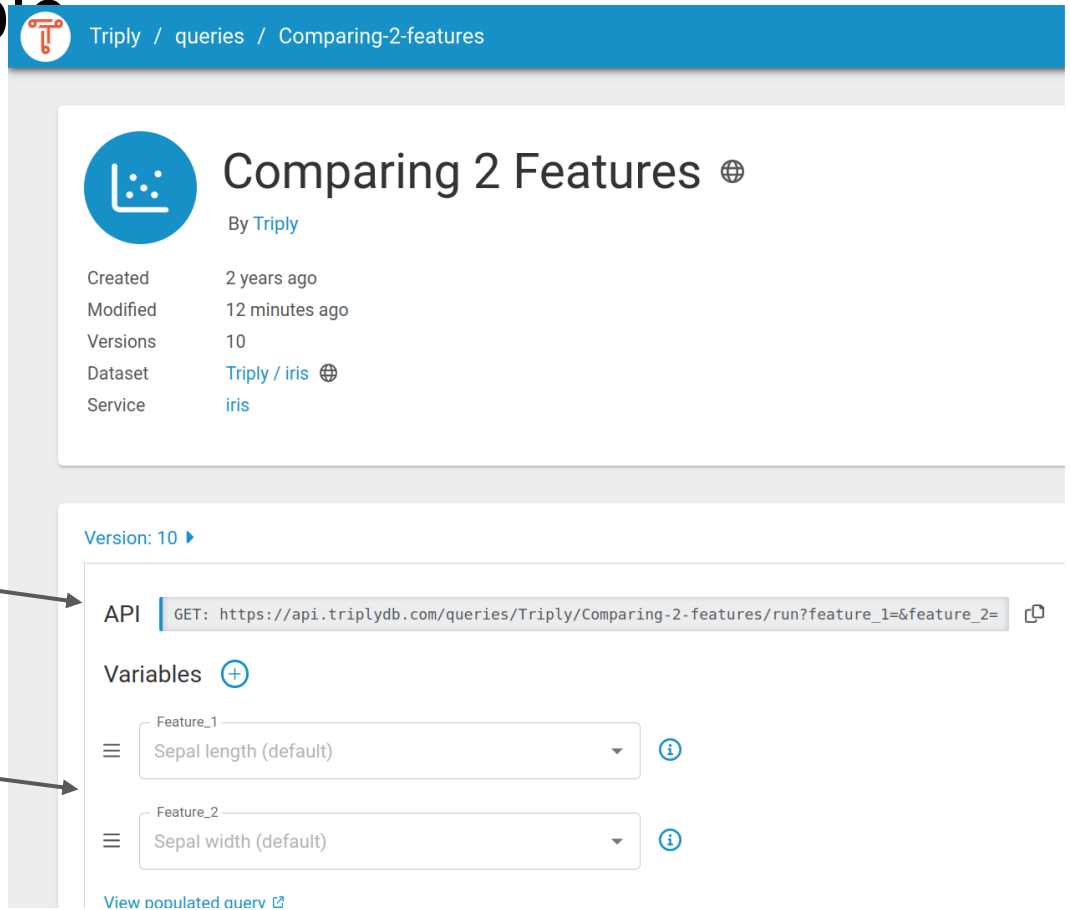
Create a SPARQL query:

- Create a SPARQL service
- Create a query
- Add a visualization

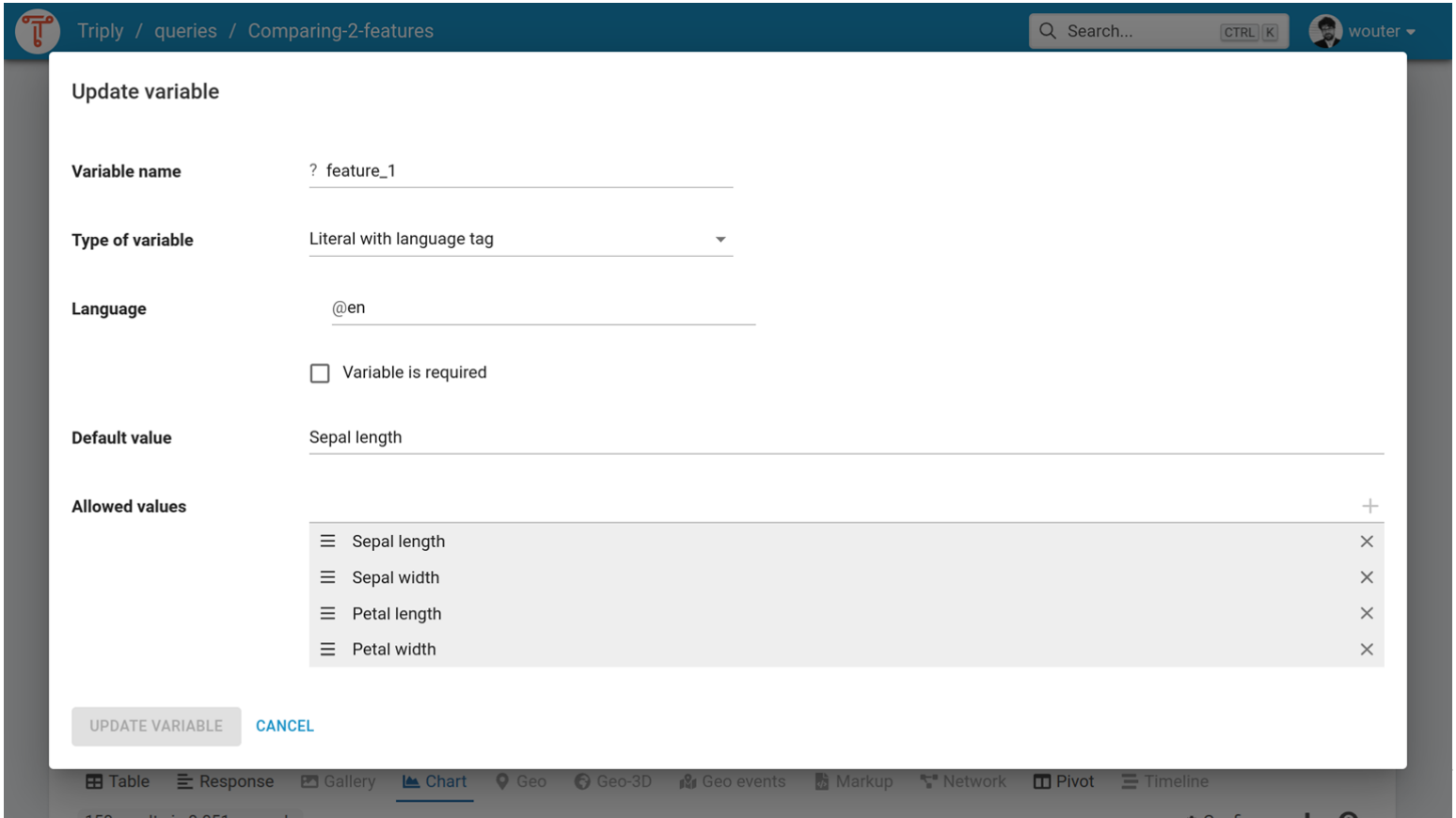
[FYI] Add an API variable

Query URL

API Variables



[FYI] Add an API variable (link)



[FYI] Open your query in a different environment

Version: 10

API `GET: https://api.triplydb.com/queries/Triply/Comparing-2-features/run?`

Variables

Triply / queries / Comparing-2-features

Search... CTRL K

wouter

Created 2 years ago

Modified 18 minutes ago

Code snippets

PYTHON R

```python
import requests, json
url = "https://api.triplydb.com/queries/Triply/Comparing-2-features/run?pageSize=10000"
response = requests.get(url)
data = response.json()
```

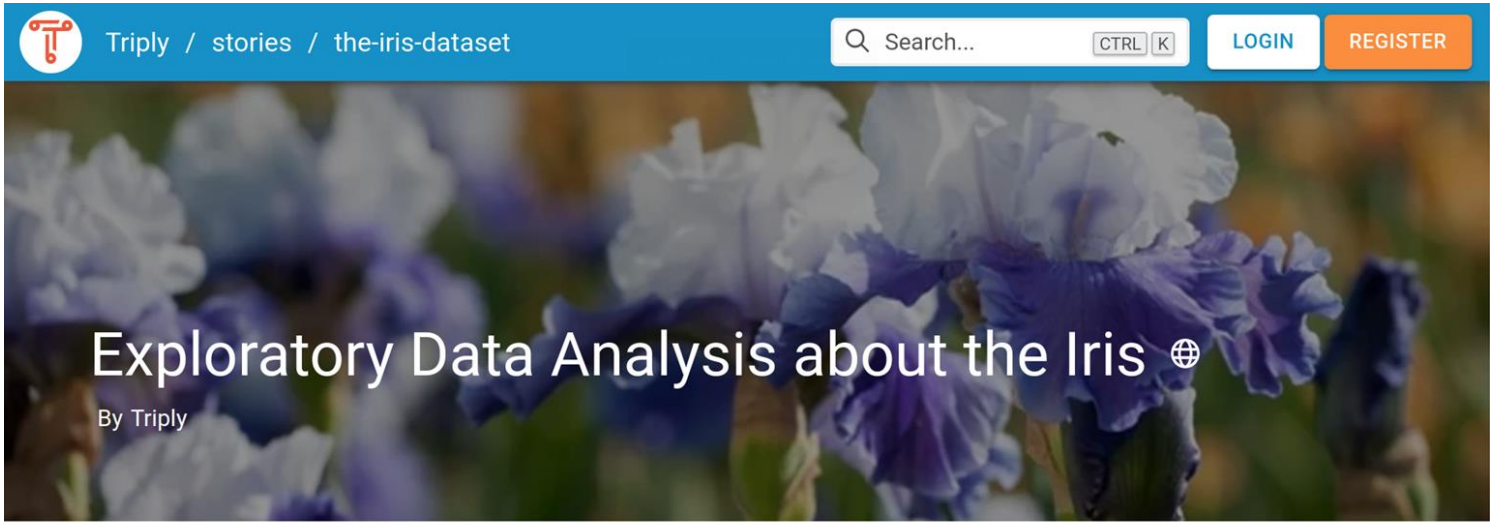
COPY TO CLIPBOARD CLOSE

Do it yourself

- Create a query with an API variable.

Create a Data Story

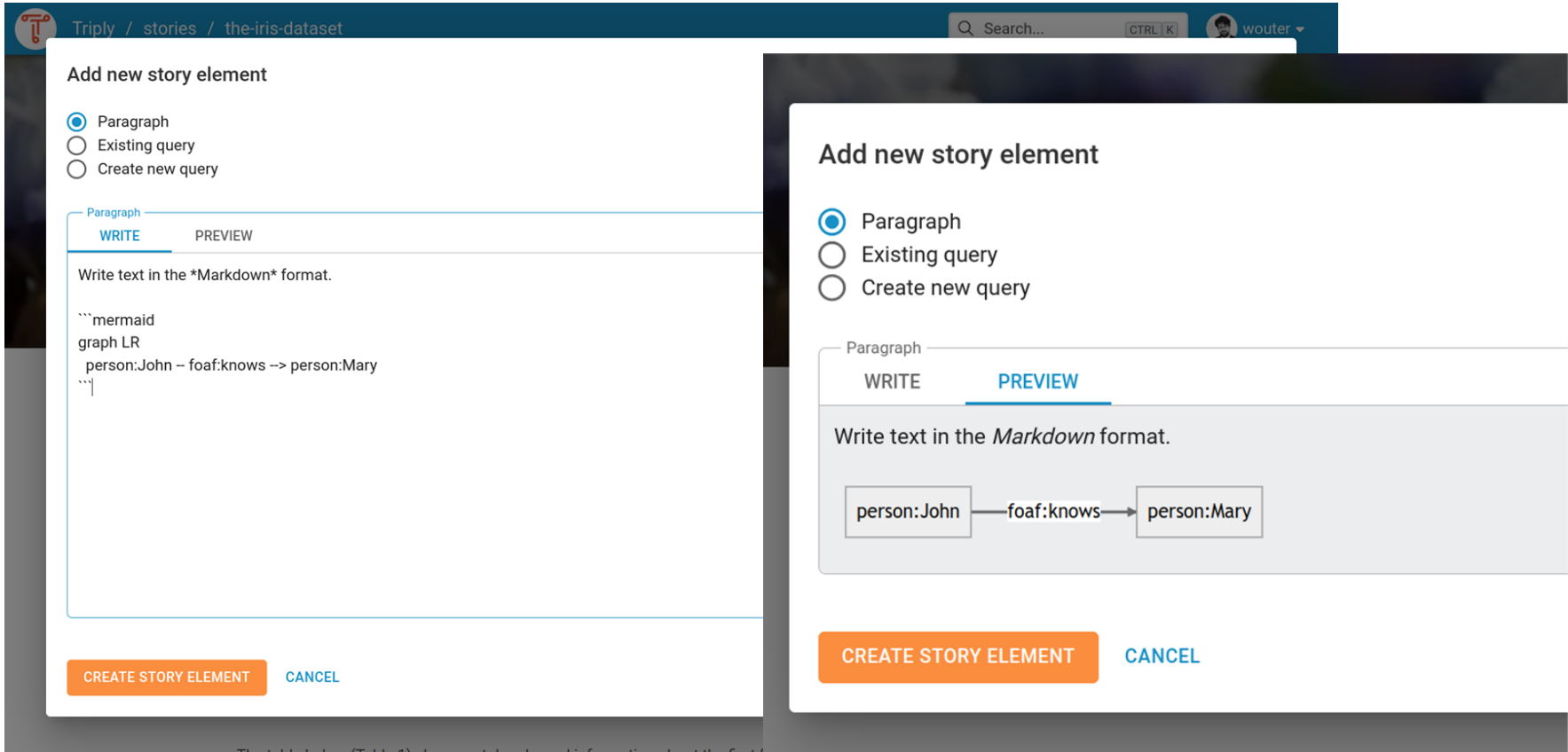
Create a Data Story (link)



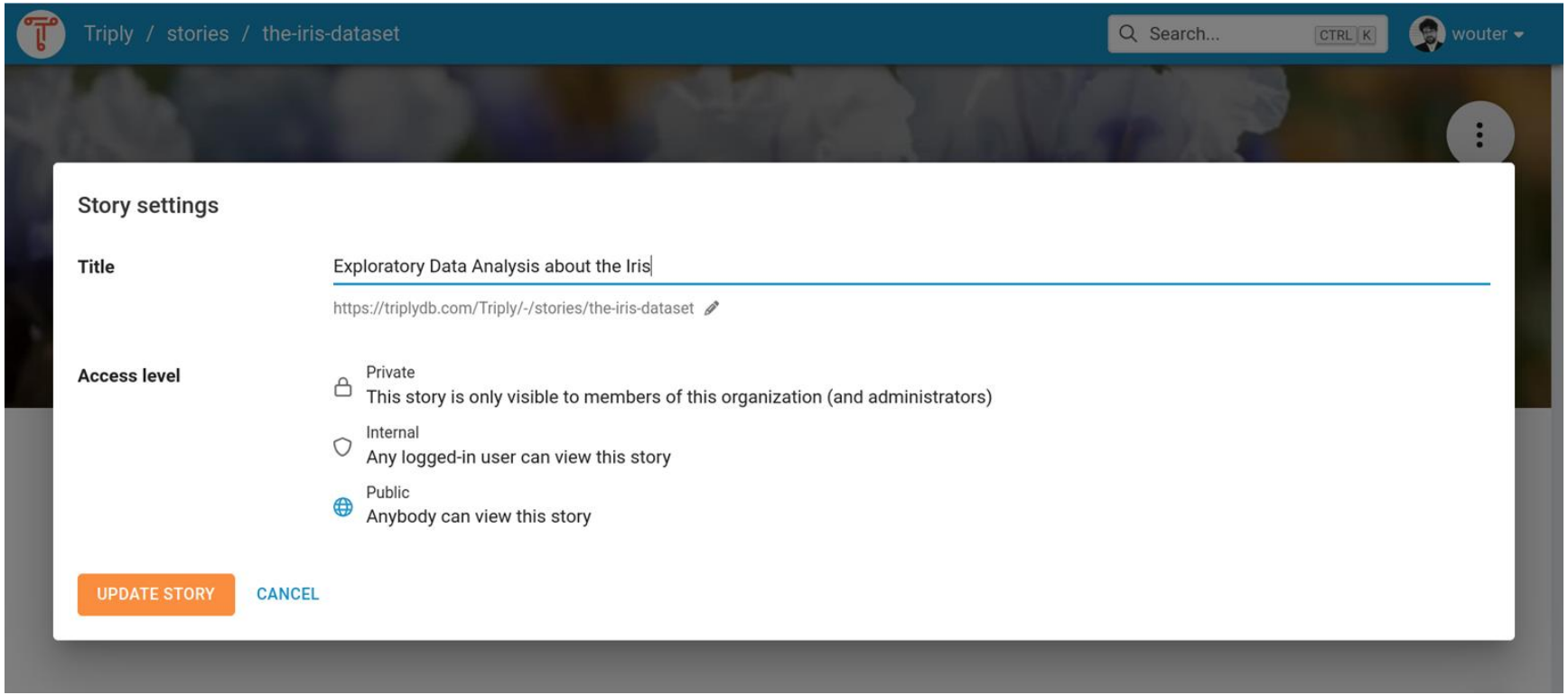
In this datastory, we are conducting an exploratory analysis on Iris dataset. Iris flower dataset has information on the three related species of Iris flowers in order for quantification of their morphologic variation. Below, there are several tables using SPARQL queries that show variations between and within the Iris flower species.

The table below (Table 1) shows petal and sepal information about the first five instances in Iris dataset. Also, the datatypes are mentioned next to the values.

Add paragram (link)



Set title and banner (link)



Include Data Story in another website (link)

Triply / stories / the-iris-dataset

Search... CTRL K

wouter

Gallery. Country descriptions with the species of Iris flower present.

Embed story

```
<iframe
  id="the-iris-dataset"
  src="https://triplydb.com/Triply/-/stories/the-iris-dataset?embed"
  width="100%"
  height="100%"
  frameborder="0"
></iframe>
<script src="https://triplydb.com/resizeIframe.js" iframeId="the-iris-dataset"></script>
```

COPY TO CLIPBOARD CLOSE

Do it yourself

- Create a Data Story that contains your query.

Follow-up / next steps

- Support questions (including bug reports): support@triply.cc
- Documentation: https://triply.cc/docs

Triply

Thank you for your attention!