



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

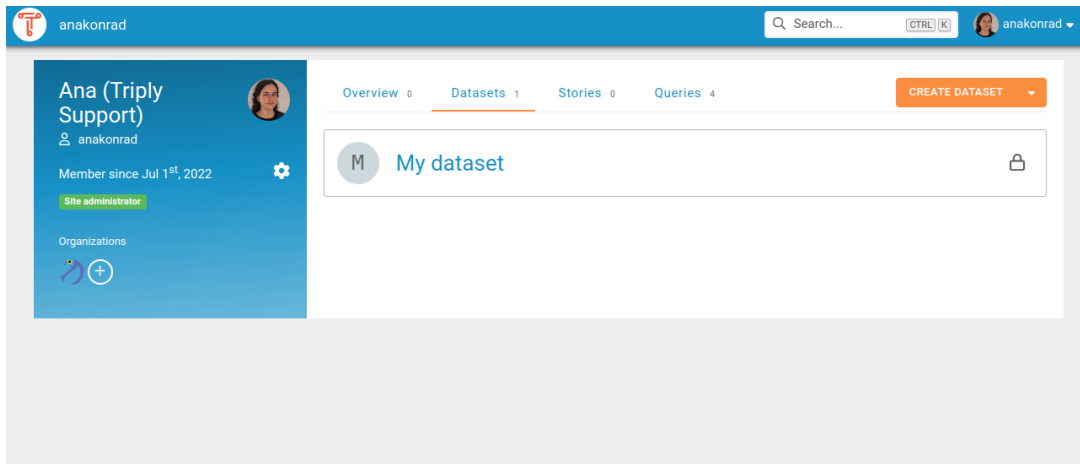
- **Datasets/Queries/Stories:**
 - **Private:** available to you or your organisation
 - **Internal:** available to logged in users
 - **Public:** available to anyone online
- **Organisation members**
 - Member
 - Owner
- **User**
 - Regular
 - Admin

Common scenarios:

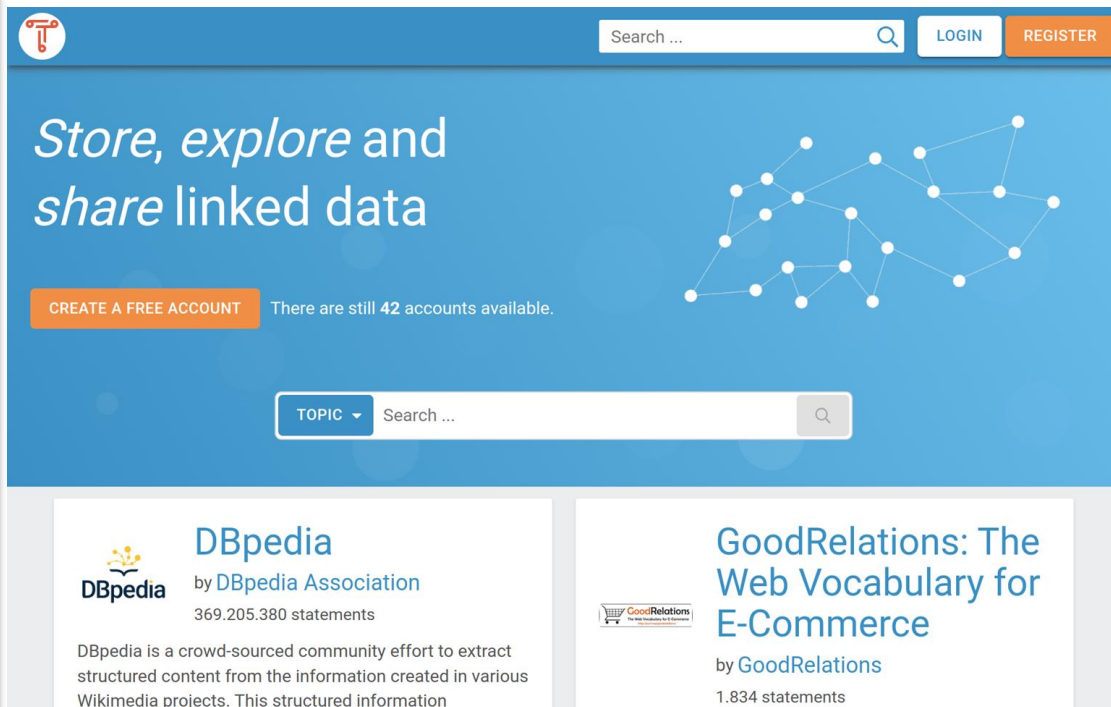
- **Private@User:** I want to work on dataset individually.
- **Internal:** Show our work to the rest of company.
- **Public:** Publish open data.

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*



The screenshot shows the TriplyDB homepage. At the top, there is a blue header with the Triply logo on the left, a search bar in the center, and 'LOGIN' and 'REGISTER' buttons on the right. Below the header, the main content area has a blue background with the text 'Store, explore and share linked data' on the left and a network graph visualization on the right. A button labeled 'CREATE A FREE ACCOUNT' is visible, followed by the text 'There are still 42 accounts available.' Below this, there is a search bar with a 'TOPIC' dropdown and a search icon. At the bottom, there are two featured datasets: 'DBpedia by DBpedia Association' with 369,205,380 statements and a description of its crowd-sourced nature, and 'GoodRelations: The Web Vocabulary for E-Commerce' by GoodRelations with 1,834 statements.

Store, explore and share linked data

CREATE A FREE ACCOUNT There are still 42 accounts available.

TOPIC Search ...

DBpedia
by DBpedia Association
369.205.380 statements
DBpedia is a crowd-sourced community effort to extract structured content from the information created in various Wikimedia projects. This structured information

GoodRelations: The Web Vocabulary for E-Commerce
by GoodRelations
1.834 statements

- 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

Add data from an existing dataset

OR

Add data from a URL

OR



Add data from files (Turtle, TriG, N-Triples, N-Quads)

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

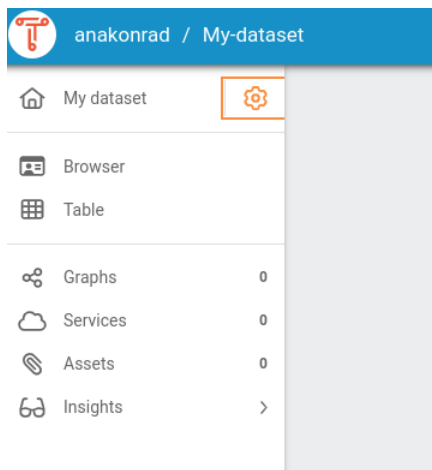
Exercise: Upload data

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



Update dataset profile

Dataset name My dataset
<https://trilydb.com/anakonrad/My-dataset> 



UPLOAD NEW AVATAR

Dataset description

WRITE

PREVIEW

Access level

 Private

This dataset is only visible to you (and administrators)

 Internal

Any logged-in user can view and query this dataset

 Public

Anybody can view and query this dataset

Topics

Add a topic

Type to search

Example resources

Add an example resource

Type to search

License

None 

SAVE


Show our work to the rest of PLDN

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

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

Update dataset profile

Dataset name


My dataset
<https://tripladb.com/My-organization/My-dataset> 


Dataset description


WRITE

PREVIEW

Access level

 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

Topics

Add a topic


Type to search

Example resources

Add an example resource

Type to search

License

None 

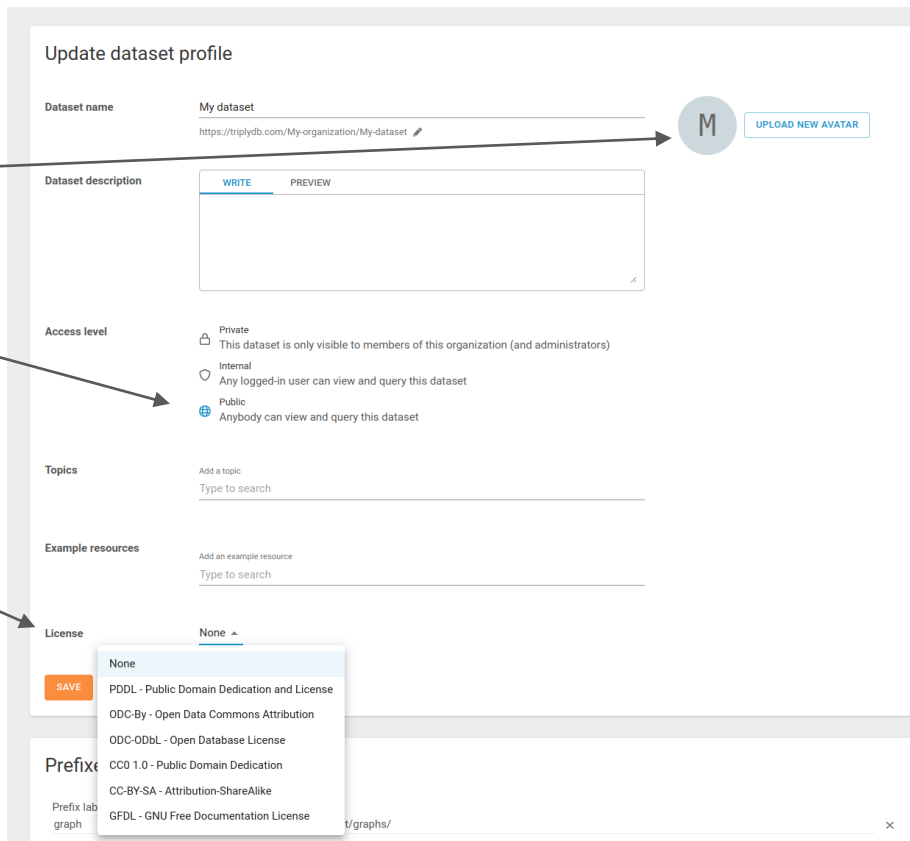
SAVE

Make the data open to everyone


Upload a dataset **image**.

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

Add a **license**.



Update dataset profile

Dataset name My dataset  [UPLOAD NEW AVATAR](#)
<https://triplydb.com/My-organization/My-dataset>

Dataset description [WRITE](#) [PREVIEW](#)

Access level
☐ 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

Topics
 Add a topic
 Type to search

Example resources
 Add an example resource
 Type to search

License None

[SAVE](#)

Prefix
 Prefix label
 graph

None
 PDDL - Public Domain Dedication and License
 ODC-By - Open Data Commons Attribution
 ODC-ODbL - Open Database License
 CC0 1.0 - Public Domain Dedication
 CC-BY-SA - Attribution-ShareAlike
 GFDL - GNU Free Documentation License

t/graphs/

CC

Automate data publication

<https://triply.cc/docs>

Automate data publication:

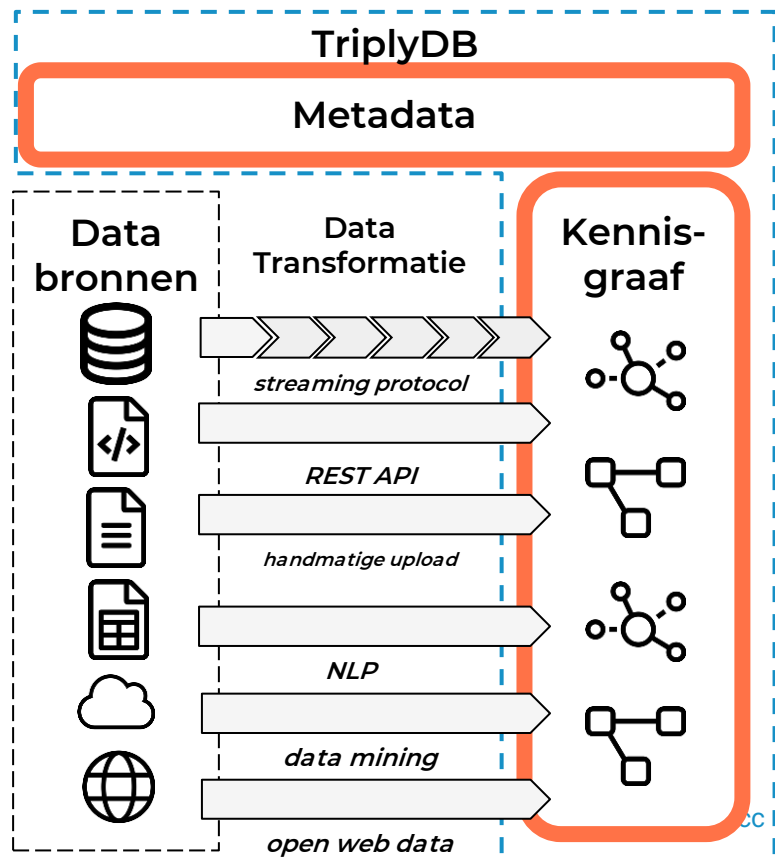
- Upload files (=> TriplyDB.js)
- Publish data from a pipeline (=> TriplyETL)

Secure handover:

- Create API Token (=> TriplyDB)

External applications:

- Configure Web Hooks (=> Web Hooks)



Navigate Data

LD Table ([visit](#))

Subject	Predicate	Object	Graph
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="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

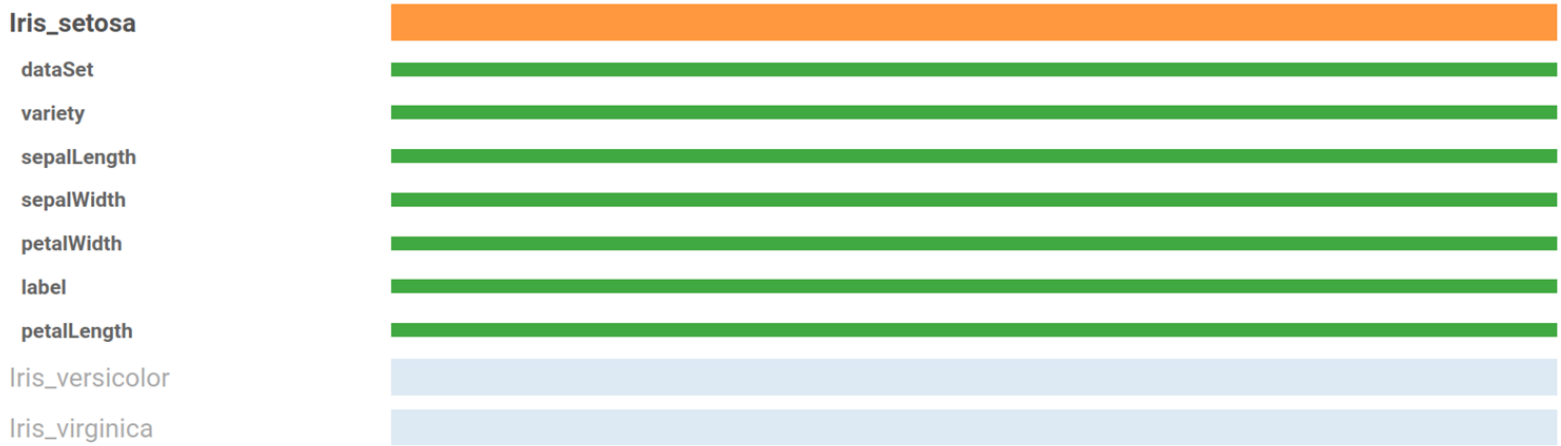
[Iris versicolor](#)

Average petal length

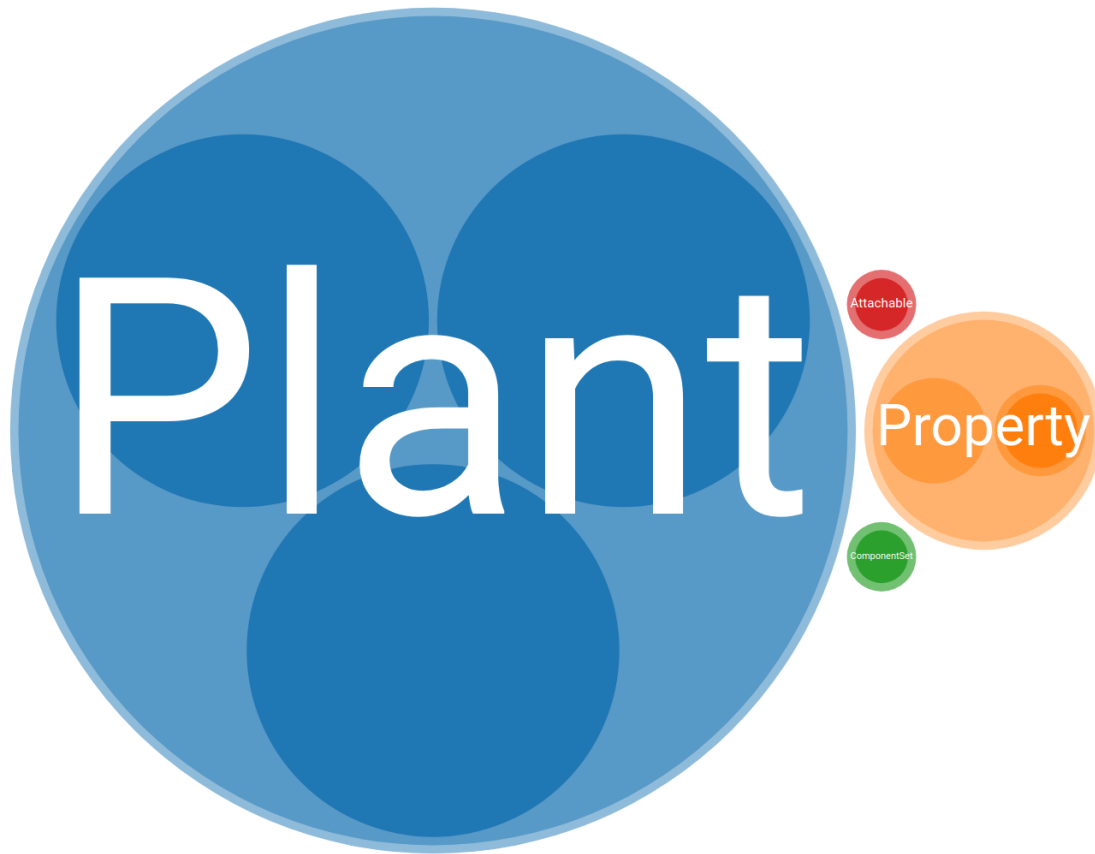
4,26

LD Insights: Class Frequency ([visit](#))

▼

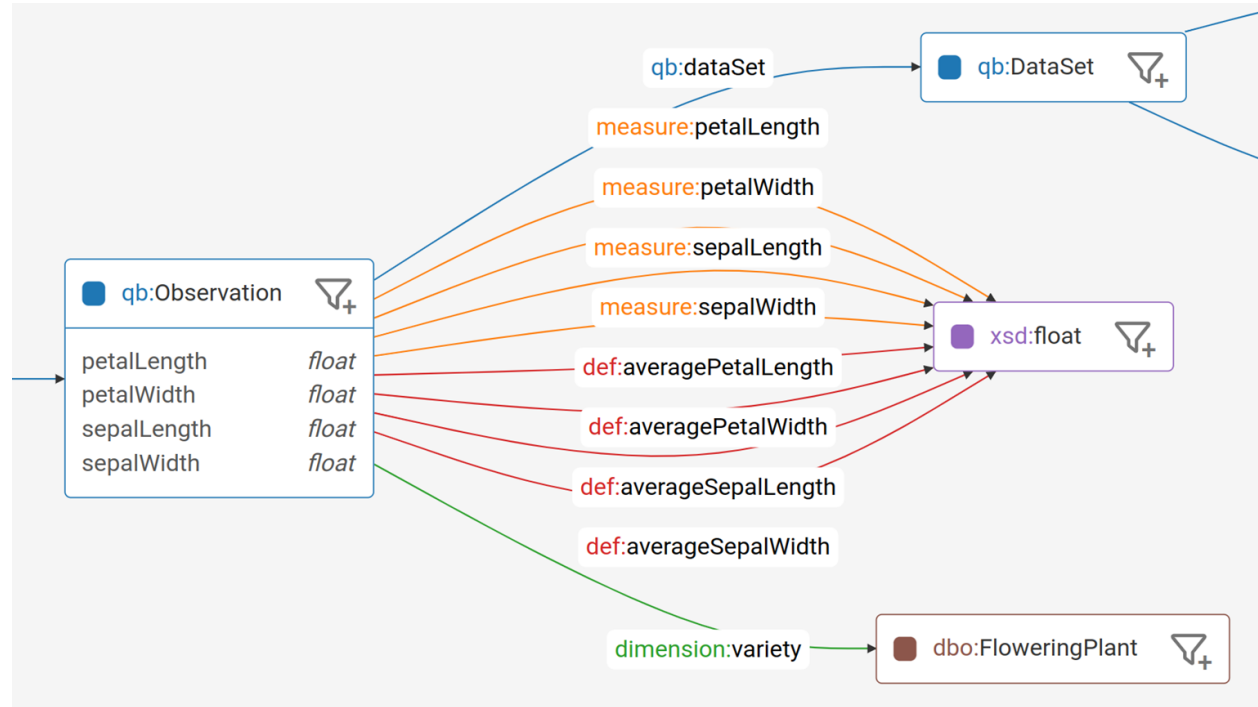


LD Insights: Class Hierarchy ([visit](#))



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).

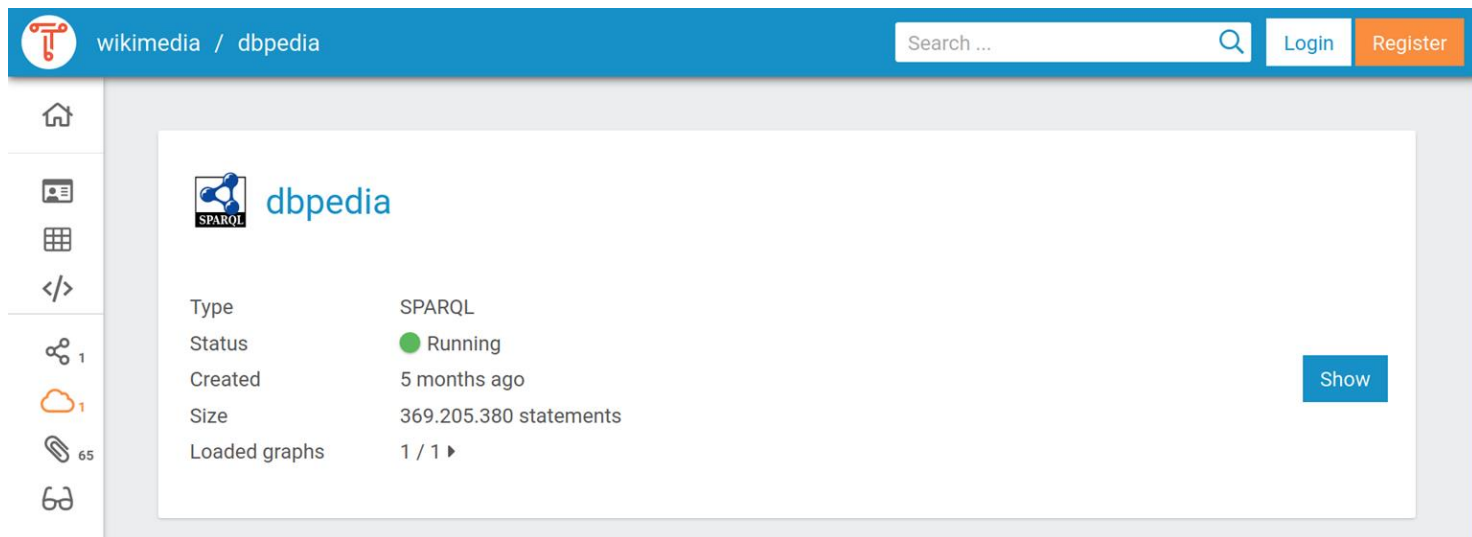
Example IRIs for LD Browser:

- 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




The screenshot shows the Triply web interface. At the top, there is a blue header bar with the Triply logo, the text 'wikimedia / dbpedia', a search bar, and 'Login' and 'Register' buttons. On the left side, there is a vertical sidebar with icons for home, user profile, grid, code editor, and other services. The main content area displays a service card for 'dbpedia'. The card includes a SPARQL icon and the following details:


Type	SPARQL
Status	● Running
Created	5 months ago
Size	369.205.380 statements
Loaded graphs	1 / 1 ▶






A 'Show' button is located to the right of the service details.





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


Write a SPARQL query


Wouter / iris

Search ...

Wouter


5

1

0




>

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](#))



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



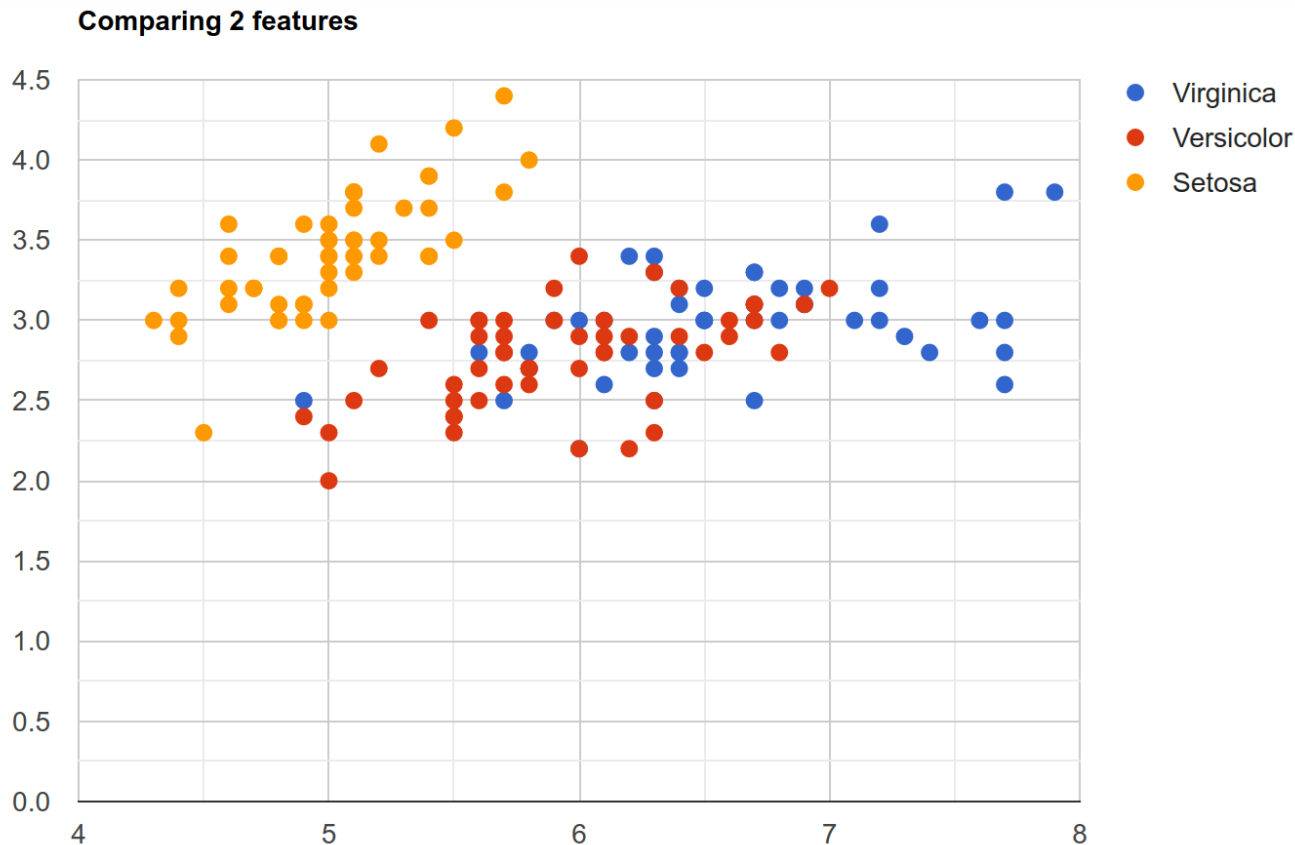
Public

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



Triply / queries / Comparing-2-features





Comparing 2 Features

By [Triply](#)




Created	2 years ago
Modified	12 minutes ago
Versions	10
Dataset	Triply / iris 
Service	iris

Version: 10 




API  GET: https://api.triplydb.com/queries/Triply/Comparing-2-features/run?feature_1=&feature_2=


Variables 

Feature_1


Sepal length (default)



Feature_2


Sepal width (default)



[View populated query](#) 

Query URL

API Variables

[FYI] Add an API variable ([link](#))

Triply / queries / Comparing-2-features

Search...
CTRL K
wouter

Update variable

Variable name

? feature_1

Type of variable

Literal with language tag

Language

@en

☐ Variable is required

Default value

Sepal length

Allowed values

+

≡

Sepal length

×

≡

Sepal width

×

≡

Petal length

×

≡

Petal width

×

UPDATE VARIABLE

CANCEL

Table

Response

Gallery

Chart

Geo

Geo-3D

Geo events

Markup

Network


Pivot

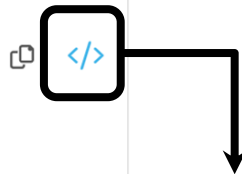
Timeline


[FYI] Open your query in a different environment


Version: 10 ▶


API GET: <https://api.trplydb.com/queries/Triply/Comparing-2-features/run?>

Variables 




Triply / queries / Comparing-2-features

 Search...

 wouter ▼

Created 2 years ago
Modified 18 minutes ago


Code snippets

PYTHON
R

```

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

```

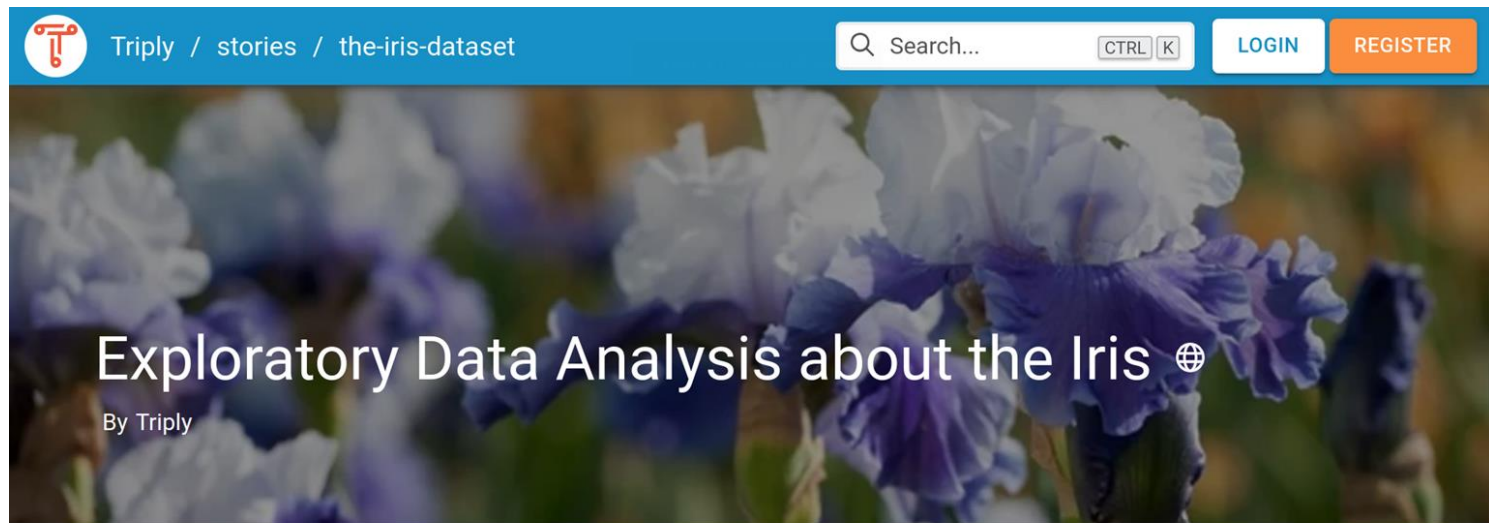
 COPY TO CLIPBOARD
CLOSE

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 paragraph ([link](#))

Triply / stories / the-iris-dataset
Search... CTRL K wouter

Add new story element

- ☒ Paragraph
- ☐ Existing query
- ☐ Create new query

Paragraph

WRITE
PREVIEW

Write text in the **Markdown** format.

```

'''mermaid
graph LR
  person:John -- foaf:knows --> person:Mary
'''

```

CREATE STORY ELEMENT
CANCEL

Add new story element

- ☒ Paragraph
- ☐ Existing query
- ☐ Create new query

Paragraph

WRITE
PREVIEW

Write text in the *Markdown* format.

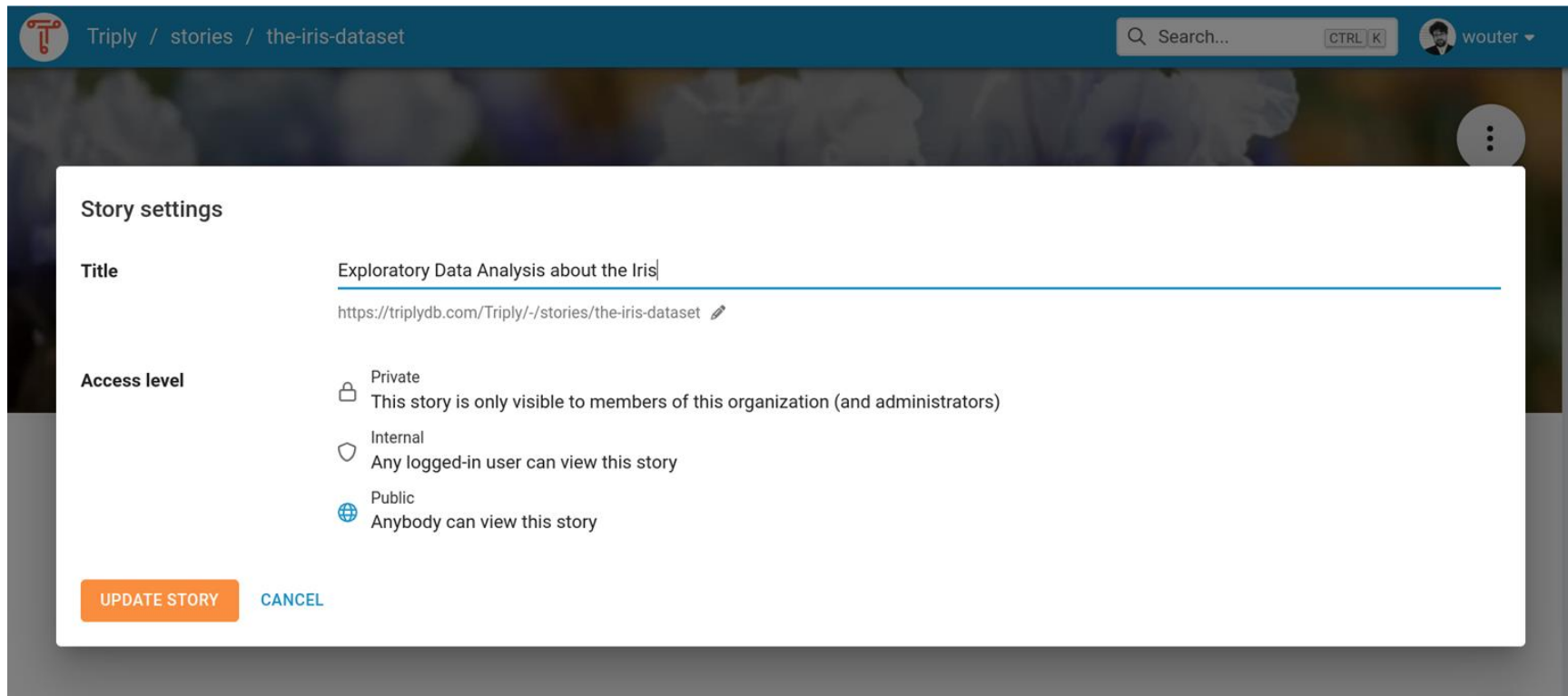
person:John

→ foaf:knows →

person:Mary

CREATE STORY ELEMENT
CANCEL

Set title and banner ([link](#))




Triply / stories / the-iris-dataset

Search... CTRL K wouter

Story settings

Title

Exploratory Data Analysis about the Iris

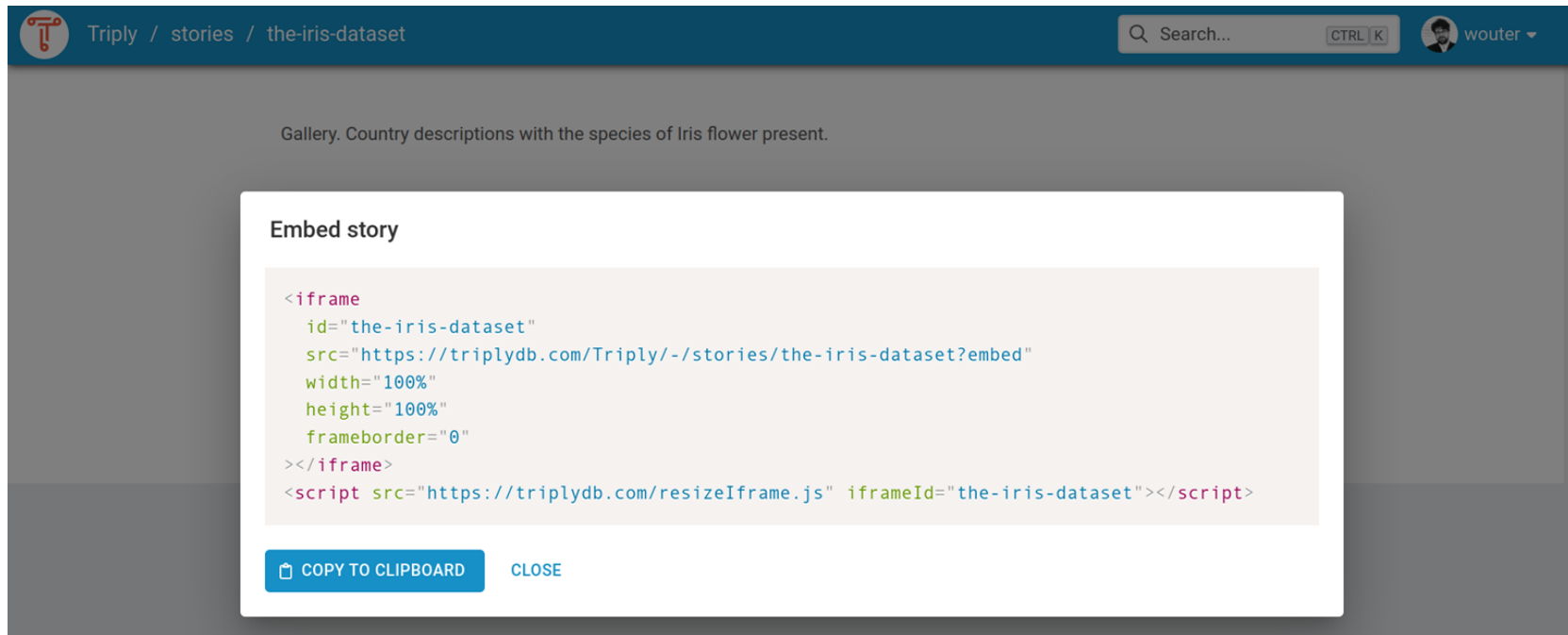
<https://triplfdb.com/Triply/-/stories/the-iris-dataset> 

Access level

- ☒ Private
This story is only visible to members of this organization (and administrators)
- ☐ Internal
Any logged-in user can view this story
- ☐ Public
Anybody can view this story

UPDATE STORY CANCEL

Include Data Story in another website ([link](#))



The screenshot shows the Triply web interface. The top navigation bar includes the Triply logo, the breadcrumb 'Triply / stories / the-iris-dataset', a search bar, and a user profile 'wouter'. The main content area displays a gallery description: 'Country descriptions with the species of Iris flower present.' A modal dialog titled 'Embed story' is open, showing the following HTML code for embedding the story:

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

At the bottom of the dialog, there are two buttons: 'COPY TO CLIPBOARD' and '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>



Thank you for your attention!

