

Wikidata

The free and open knowledge base



How to build SPARQL queries

Repo Fringe 2017

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[Link to presentation](#)

WIKIDATA

i/o



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**DATA IS THE
NEW BACON**

Wikimedia's family of open knowledge projects



WIKIPEDIA
The Free Encyclopedia



WIKIBOOKS
Open books for an open world



Wikiquote



WIKIDATA



Wikimedia
Tool Labs



WIKISOURCE



Wiktionary
The free dictionary



MediaWiki



WIKIVERSITY



WIKISPECIES
free species directory



WIKINEWS



**WIKIMEDIA
COMMONS**



**WIKIMEDIA
INCUBATOR**



**WIKIMEDIA
META-WIKI**



**wiki
voyage**

https://wikimediafoundation.org/wiki/Our_projects

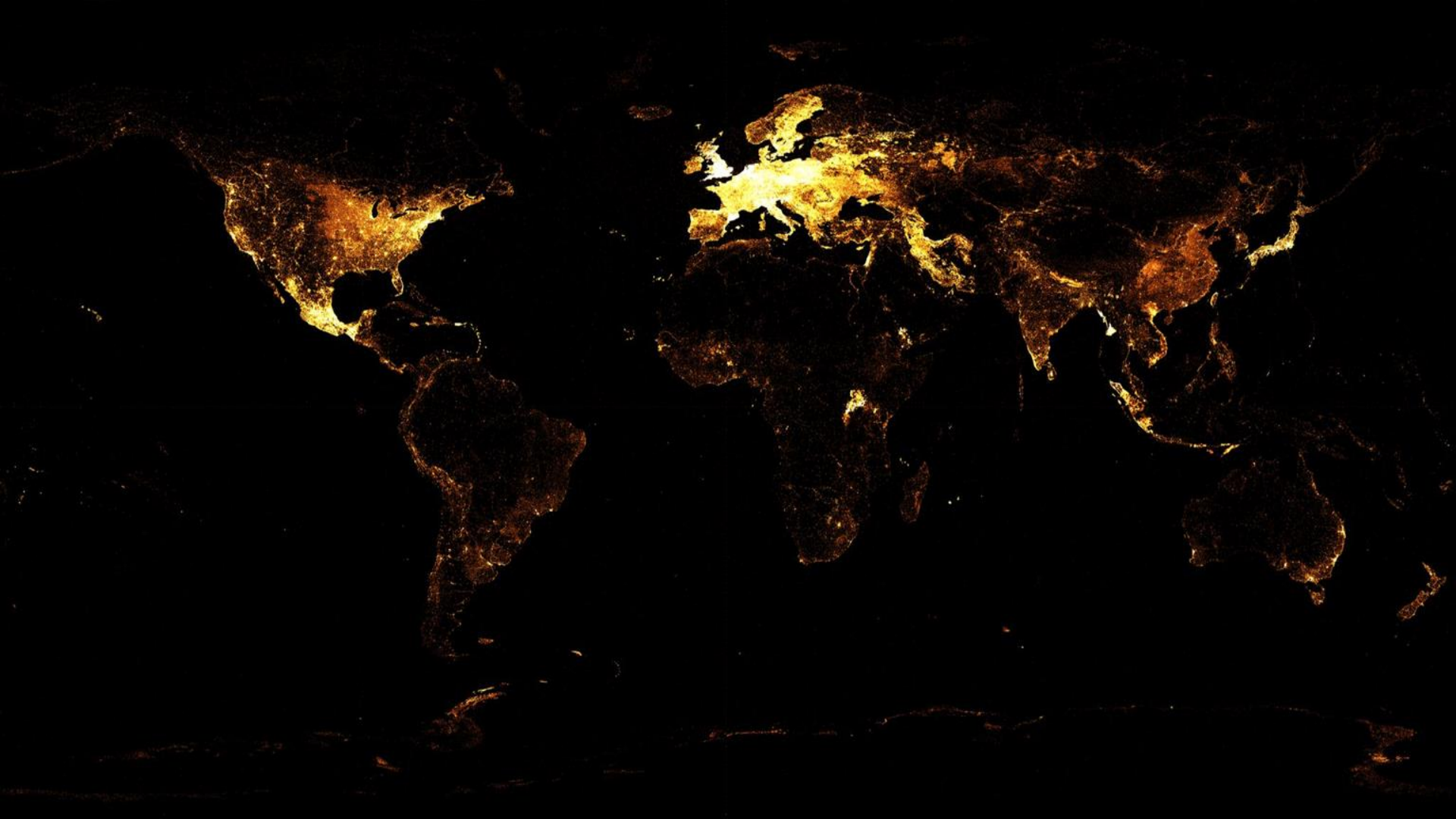
What is Wikidata?

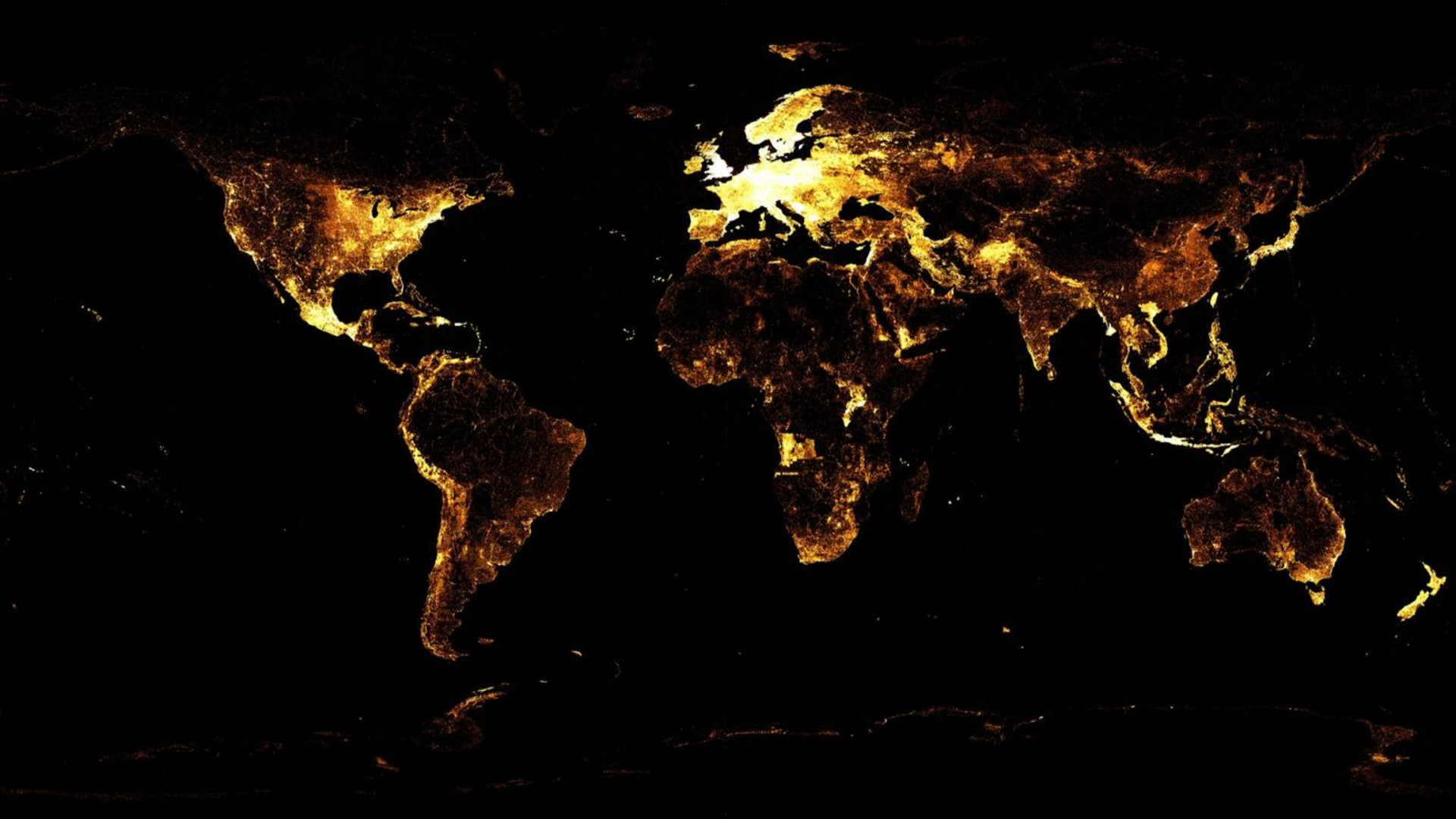


Wikidata is a free linked database of secondary data (facts and statements) that can be read and edited by both humans and machines.

Wikidata acts as central storage for the structured data of its Wikimedia sister projects including Wikipedia, Wikivoyage, Wikisource, and others.

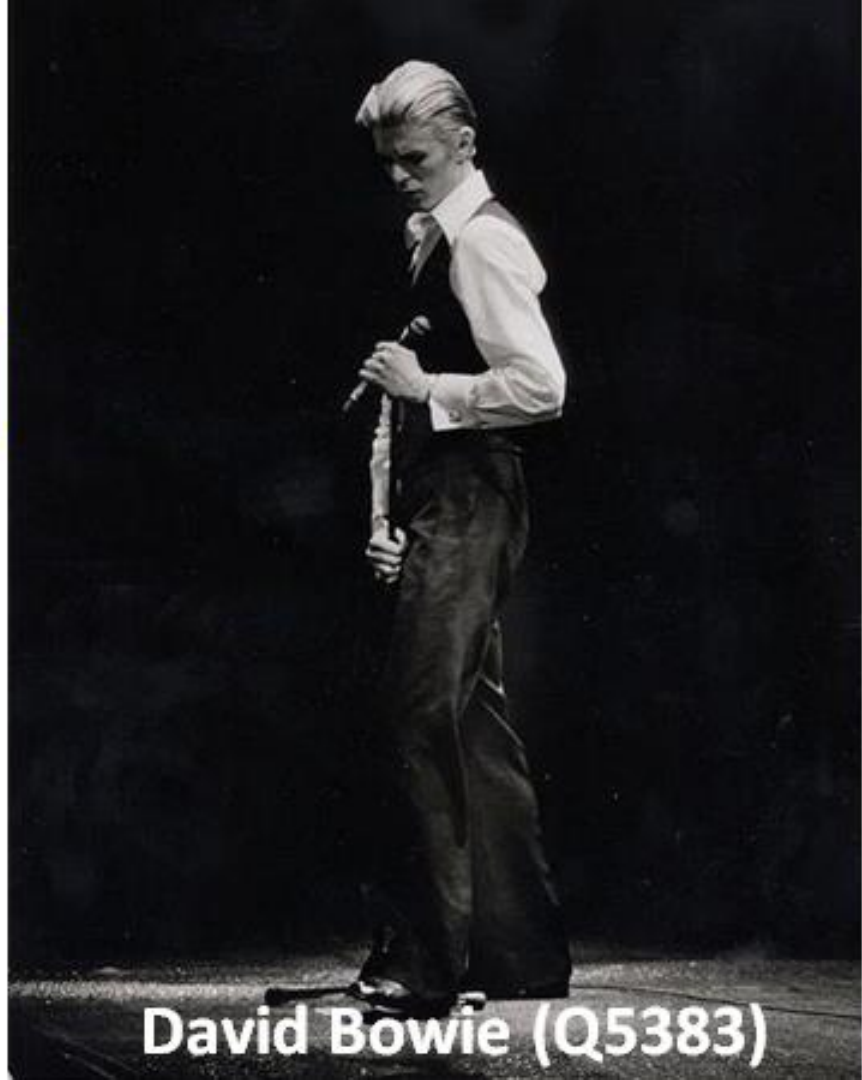






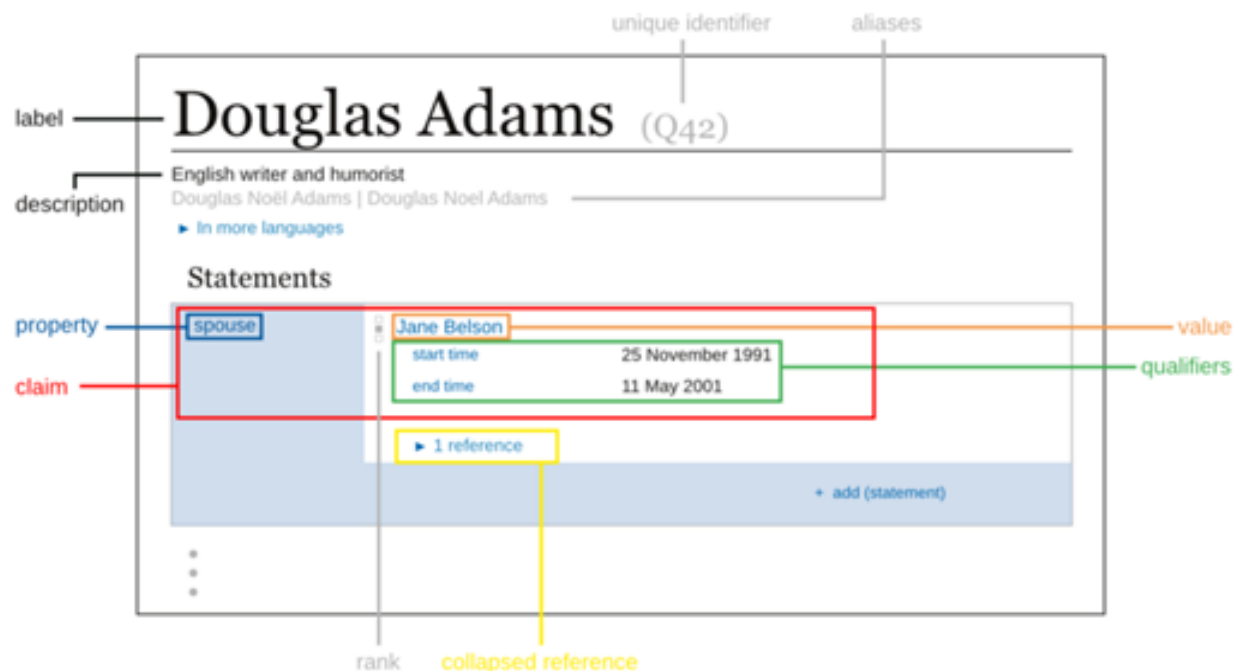
date of birth (P569)

8 January 1947



David Bowie (Q5383)

Example Wikidata item & statement



[Douglas Adams is wikidata.org/wiki/Q42](https://www.wikidata.org/wiki/Q42)

[Douglas Adams – in Reasonator's 'pretty' form.](#)

What is SPARQL?

SPARQL is a programming language for querying 'linked data' stored on the web.

It's essentially a set of commands that allow you to find exactly the data you want.

Learning SPARQL will allow you to query Wikidata, but also the countless other data sources offering a SPARQL query service

- *E.g. Show me a list of all Female Chemists, along with their date of birth, place of birth, and the map coordinates of their place of birth.*

How hard would it be to do that using Google!?!

7.07 Million

SPARQL queries/day

Wikidata Query Examples

- [Bubble chart showing most cited female authors](#)
- [Image grid of space probes](#)
- [Timeline of nobel prize winners in chemistry](#) ([on Histropedia](#), colour coded by country of citizenship, filter by gender)

[Go to the query service](#) and click the 'examples' button. Try loading a couple that interest you.

Worked Example

Time for a demo!

Load the Wikidata Query Service now -

<https://query.wikidata.org>

We're going to build a new query together....

[Final query](#) →

Practical session

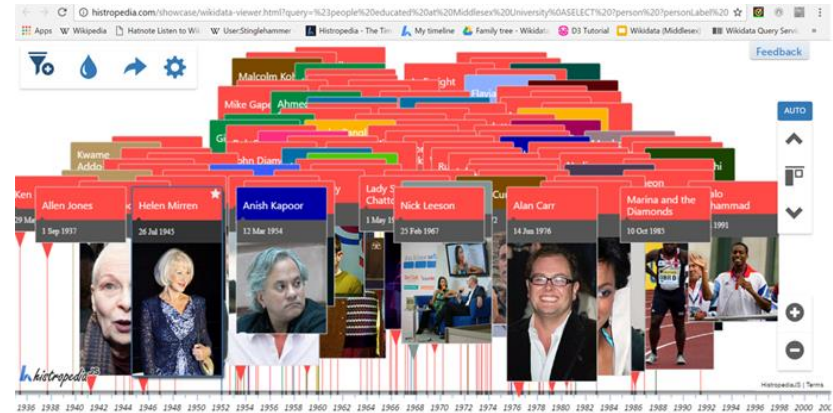
Write your own query. You may try and modify an existing example, or start one from scratch if you're feeling brave!

Remember these tips:

1. **Hovering** - hover over any property or item to see what it is called (it's 'label')
2. **Ctrl + Space** - Allows you to quickly add properties, items and other commands.
3. **Visualisation options** - You can select applicable visualisation options from the dropdown menu.
4. **Short url links / Embed links** - You can share links to your query, and get code for embedding on a web page.

Bonus - amend these queries to your institution!

1. [Glasgow School of Art timeline](#)
2. [Heriot-Watt alumni timeline](#)
3. [Edinburgh Napier alumni timeline](#)
4. [University of Edinburgh alumni timeline](#)
5. [Aberdeen University alumni timeline](#)
6. [University of Glasgow alumni timeline](#)
7. [Strathclyde University alumni timeline](#)
8. [Stirling University alumni timeline](#)
9. [St. Andrews University alumni timeline.](#)
10. [Royal Conservatoire of Scotland alumni timeline](#)



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Want to learn more SPARQL? Check out

Learningsparql.com