

Wikimedia APIs

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FREE KNOWLEDGE GAME JAM
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Find the slides here:

<https://tinyurl.com/qemwbfh>

Wikimedia APIs

Introduction to the APIs
of Wikimedia projects

Wikipedia

Wikidata

Wikimedia Commons

Wikiquote

Wikisource

...

MediaWiki

(Wikipedia)

MediaWiki

is the software behind the
Wikimedia projects like
Wikipedia

index.php

api.php

RESTbase

index.php

Get the content of a Wikipedia Page

→ as Wikitext

https://en.wikipedia.org/w/index.php?action=raw&title=Alan_Turing

→ as HTML

https://en.wikipedia.org/wiki/Alan_Turing?action=render

api.php

→ every MediaWiki has an api, to be found at:

<https://en.wikipedia.org/w/api.php>

→ documentation:

https://www.mediawiki.org/wiki/API:Main_page

RESTbase

<https://rest.wikimedia.org/en.wikipedia.org/v1/?doc#/>

→ documentation: <https://www.mediawiki.org/wiki/RESTBase>

Wikidata

**the free knowledge base with
14,958,963 data items that anyone
can edit**

Short introduction

- free knowledge base by the Wikimedia movement
- structured data
- user created content
- linked data
- people, places, events, ...
- powered by Wikibase (open source)
- data: CC-0

item

labels

en label

Qid

de Bezeichner

..... descriptions / aliases / sitelinks

statements

statement

property

value

qualifiers

property

value

property

value

references

reference

property

value

Wikidata DataModel

Accessing Wikidata's data

[https://www.wikidata.
org/wiki/Wikidata:
Data_access](https://www.wikidata.org/wiki/Wikidata:Data_access)

Per Item Access

API

SPARQL Endpoint

Wikidata Query (WDQ)

Dumps

Per Item Access

→ data of for single item can be retrieved via

`http://www.wikidata.org/wiki/Special:EntityData/Q7251`

→ to get the data of the item in **.json** format

`http://www.wikidata.org/wiki/Special:EntityData/Q7251.json`

→ other possible formats:

.rdf, .ttl or .nt

Wikidata API

→ get the data of a single item

**`https://www.wikidata.org/w/api.php?
action=wbgetentities&ids=Q7251&format=json`**

→ **`wbgetentities`**, **`wbgetclaims`**, **`wbsearchentites`**

→ Sandbox: **`wikidata.org/wiki/Special:ApiSandbox`**

→ additional documentation: **`mediawiki.org/wiki/Wikibase/API`**

SPARQL Endpoint

<https://query.wikidata.org/>

→ complex queries with SPARQL

→ SPARQL? SPARQL! <http://tinyurl.com/nlsoqxf>

→ documentation: https://www.mediawiki.org/wiki/Wikidata_query_service/User_Manual

→ example: All items, that have their date of birth (P569) today

```
PREFIX entity: <http://www.wikidata.org/entity/>
PREFIX t:      <http://www.wikidata.org/prop/direct/>
PREFIX rdfs:   <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd:    <http://www.w3.org/2001/XMLSchema#>
```

```
SELECT ?entity (year(?date) as ?year) WHERE {
  ?entityS t:P569 ?date .
  ?entityS rdfs:label ?entity .
  FILTER ( LANG(?entity) = "en" )

  FILTER (datatype(?date) = xsd:dateTime)
  FILTER (month(?date) = month(now()))
  FILTER (day(?date) = day(now()))
} LIMIT 100
```

<http://tinyurl.com/nfeskmf>

Wikidata Query and Database Dumps

— — —

→ Wikidata Query (WDQ) helps to run complex queries in another query language

<https://wdq.wmflabs.org/>

→ there are Wikidata database dumps in json (recommended), XML and RDF

https://www.wikidata.org/wiki/Wikidata:Database_download

Wikimedia Commons

**a database of 28,765,395 freely
usable media files to which anyone
can contribute
<https://commons.wikimedia.org>**

Wikimedia Commons API

→ example image URL

<https://upload.wikimedia.org/wikipedia/commons/1/17/LuciePixelated.png>

→ get a certain image with a set size and metadata like the license

<https://tools.wmflabs.org/magnus-toolserver/commonsapi.php>

→ documentation

https://commons.wikimedia.org/wiki/Commons:Commons_API

Examples

Wikidata Game

— — —

Wikidata Game Frimelle

This item has no "instance of", and could be a person.

Item [Q19948485](#)

[Claude Miller](#)

[mgwiki: Claude Miller](#)

[mg.wikipedia.org: Claude Miller](#)

Claude Miller dia talen-koronantsary, mpanoratra senariô mizaka ny zom-pirenen'i Frantsa teraka ny 20 Febroary 1942 tao Paris ary maty ny 4 Aprily 2012 tao Paris == Jereo koa == Biôgrafia === Rohy ivelany ===
Ao amin'i Freebase: [1]...

Person

Not sure

Not a person

<http://tools.wmflabs.org/wikidata-game/#>

→ improve Wikidata's data in a quick and simple game

Guess the Quote

<http://fuzzle.me/guess-the-quote/>

→ get your books from **inventaire.io** (which is build on Wikidata) including Wikidata entity Id, title and cover link to Wikimedia Commons

→ check the Item Ids of the books and get their Wikiquote sitelink via the Wikidata API

→ get a random quote from Wikiquote using **https://github.com/natetyler/wikiquotes-api**

Guess the Quote

A small game powered by the magic of [inventaire.io](#), [Wikidata](#) and [Wikiquote](#)

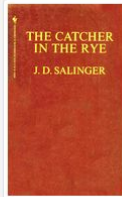
[On github](#)

New Quote

The patron of The Young Amelia proposed as a place of landing the Island of Monte Cristo, which being completely deserted, and having neither soldiers nor revenue officers, seemed to have been placed in the midst of the ocean since the time of the heathen Olympus by Mercury, the god of merchants and robbers, classes of mankind which we in modern times have separated if not made distinct, but which antiquity appears to have included in the same category.

The book

[The Catcher in the Rye](#)



[The Great Gatsby](#)



[The Stranger](#)



[Little Women](#)

[The Count of Monte Cristo](#)

[The Picture of Dorian Gray](#)

Thank you!

Presentation:

<http://tinyurl.com/qemwbfh>

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numbers as of 23.10.15

Contact me!

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