

# Ontology Engine

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## Follow up

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08/05/2007	create the present document and the directory ontology_engine	Y. Le Razer

## Description

The primary function of this software engine is to generate a [RDF](#) file following the model.yaml (an simplified description of an ontology), the rules of transformation and a json file with the data to be included.

This conversion involves interpreting the YAML data according to predefined transformation rules that dictate how to map YAML structures to RDF triples.

## Environment

We use [poetry](#) as dependency management and packaging in Python. This is a [cheat sheet](#) for basic usage.

### Libraries

#### Test framework

We use the [pytest](#) library : `pip install pytest`. This is [article that explain python testing with PyTest](#).

#### Yaml

We use the [pyyaml](#) library : `pip install pyyaml`. This is [an example of CRUD operations on yaml](#).

#### RDFS

Cambridge Semantics presents a RDF 101 Course.

- RDF is a graph data model.
- RDF data are directed, labeled graphs.
- A single edge in an RDF graph is a 3-tuple that is called either a statement or triple.
- Triples are organized into named graphs, forming 4-tuples, or quads.
- RDF resources (nodes), predicates (edges), and named graphs are labeled by URIs.
- Although preferable to reuse URIs when possible, Semantic Web technologies, including OWL and SPARQL, make it easy to resolve URI conflicts, as we'll see in future lessons.

#### Other Sources

- <https://www.easyrdf.org/docs/rdf-formats-json>

## Mindmatcher sources

07/05/2024 18h44 - Florent provide in [Slack](#) a [Definition files in RDFS](#).

## References

- [Python Naming Convention](#)