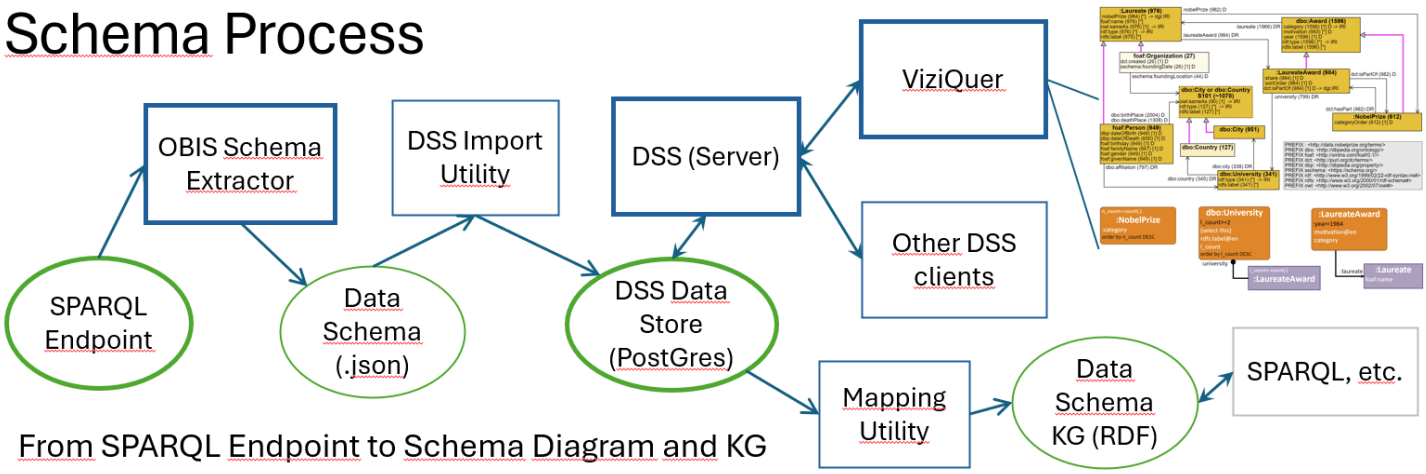
OBIS Extractor: Create a Schema for Your Knowledge Graph

Kārlis Čerāns, Aiga Romāne-Ritmane, Mikus Grasmanis, Lelde Lāce
Institute of Mathematics and Computer Science, University of Latvia
karlis.cerans@lumii.lv

Schema Process

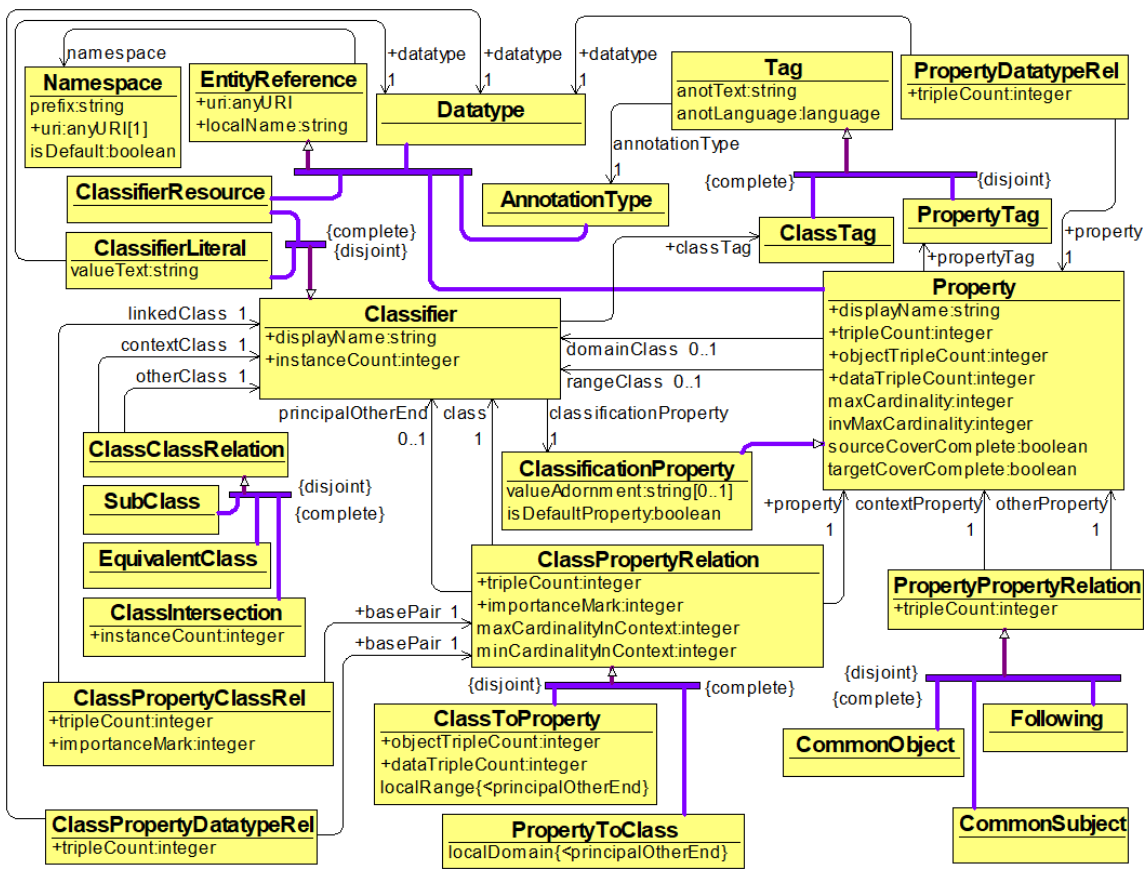


From SPARQL Endpoint to Schema Diagram and KG

OBIS Extractor: locally deployable Java service for schema extraction from SPARQL endpoints https://github.com/LUMII-Syslab/OBIS-SchemaExtractor

Direct link to wiki:

Data Schema Structure



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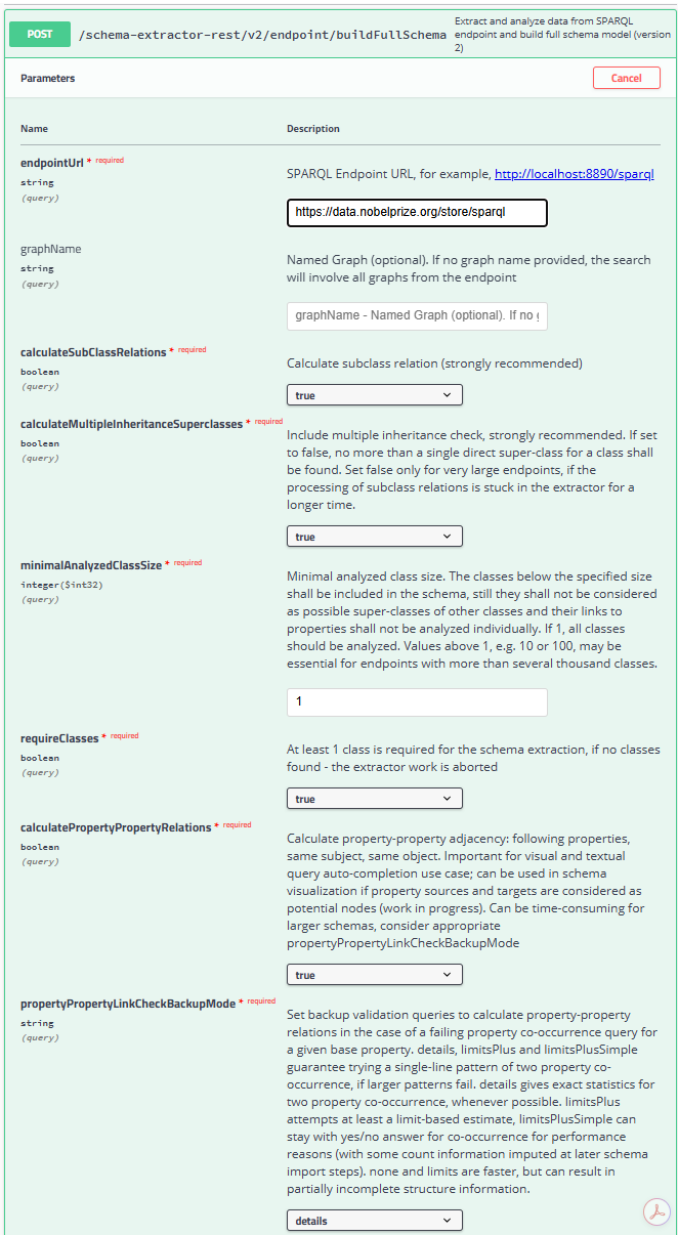
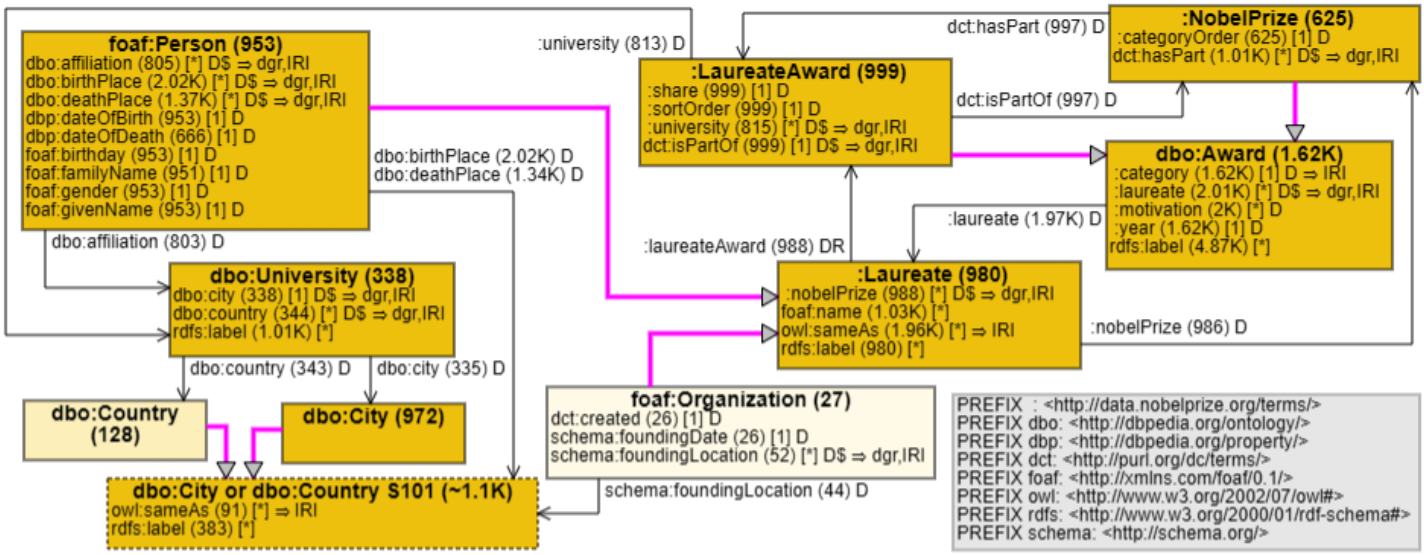
Extraction highlights:

- **Sequence of SPARQL queries** for extracting various data schema aspects (e.g., class list, property list, subclass relation, class-to-property, property-to-class, class-property-class and property-to-property relations; cardinalities, datatypes, property domains and ranges)
- **Large generic queries** backed up by **sequences of individualized queries**, if the initial queries fail (e.g., timeout); examine a relation down to a single pattern existence (assume non-existence, if this fails)
- **Quality marks** and extraction **message logs** allow estimating extraction quality
- Tolerance for **temporary endpoint downtimes** (liveness checks in case of query failures)
- **Parameters** for extraction scope and precision. Consult the paper for **parameter value recommendations** (e.g., limit the data type extraction scope)
- **Missing quantity estimates and imputation** during schema import stage into DSS
- **Extraction time** from a couple of **minutes** to a couple of **days** (e.g., for a fully detailed extraction of a schema with about 1000 classes and 1000 properties).



(more parameters in UI and config file)

Applications: visual schema diagrams (visual and textual query auto-completion possible, as well)



KG?

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