Towards a Visual SPARQL-DL Query Builder

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Contents

Outline

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Then, we want to:

- Make queries.
- With great expressivenes.
- Easy to read, write and understand.

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What is *crowd*?

Web tool for graphical ontology modelling

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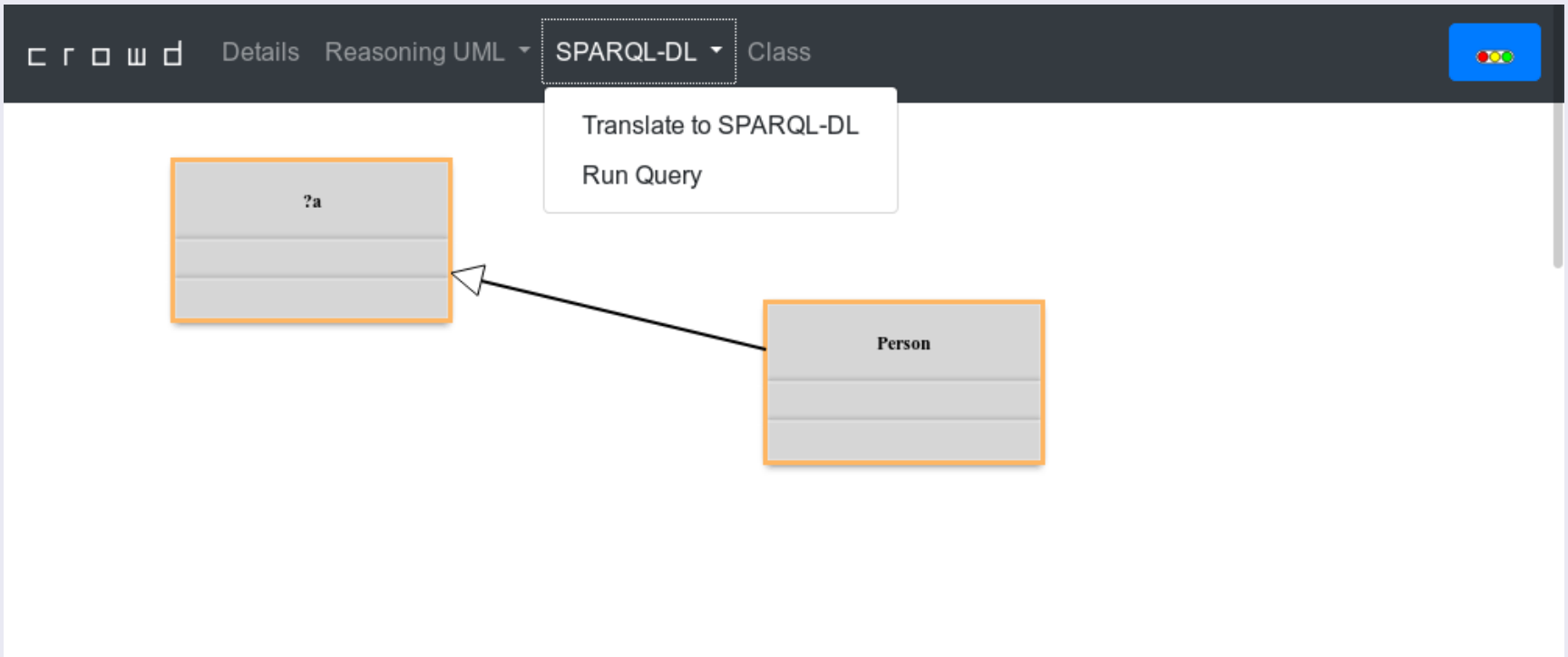
Why *crowd*?

- Web tool.
- Adaptable and expandable.
- Supports UML as graphical language.
- Berardi *et al.* encoding to OWL 2 and reasoning support.

A *crowd* screeshot



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```
SELECT * WHERE {Class(?x), Class(?y),
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  For example: `?person`

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Let's define a UML-like Visual Query Language.

- *crowd* has UML support.
- UML is well-known.
- We allow to use variables as classifier names.
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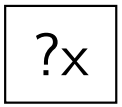
UML	DL	OWL 2
TBox		
Classes Associations Generalizations	Concepts Roles Inclusion	Classes Object Properties `SubClassOf`
ABox		
Objects	Instances	`Individuals`/Instances

Outline

SPARQL-DL Encoding

Now we need to encode the UML-like primitives into SPARQL-DL.

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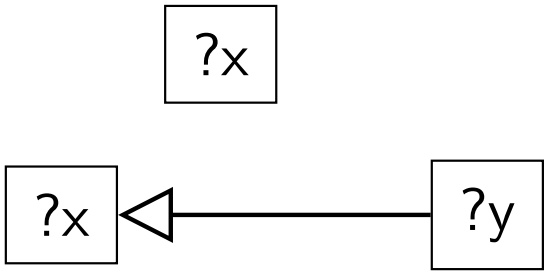


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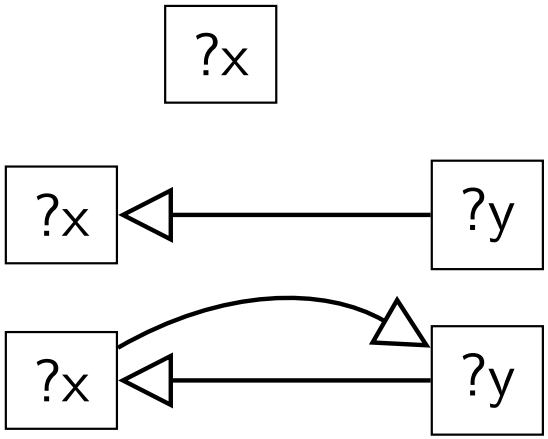


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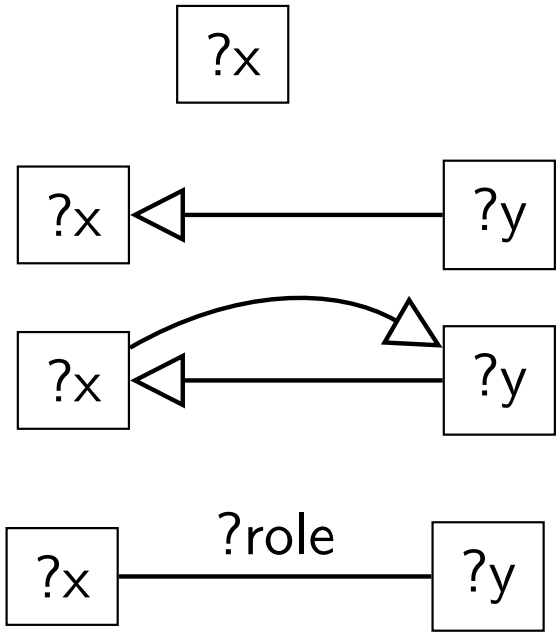


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SELECT * WHERE {Class(?x), Class(?y),
  Domain(?role, ?x), Range(?role, ?y)}
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SPARQL-DL Encoding (instances)

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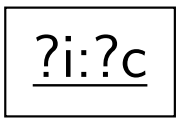


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SELECT * WHERE {Type(?i, ?c)}
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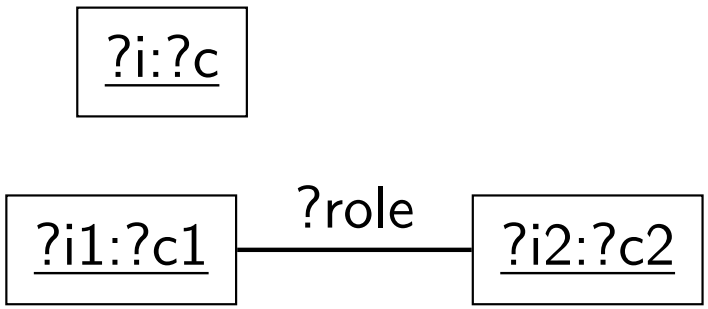


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SELECT * WHERE {
  PropertyValue(?c1, ?role, ?c2),
  Type(?i1, ?c1), Type(?i2, ?c2)}
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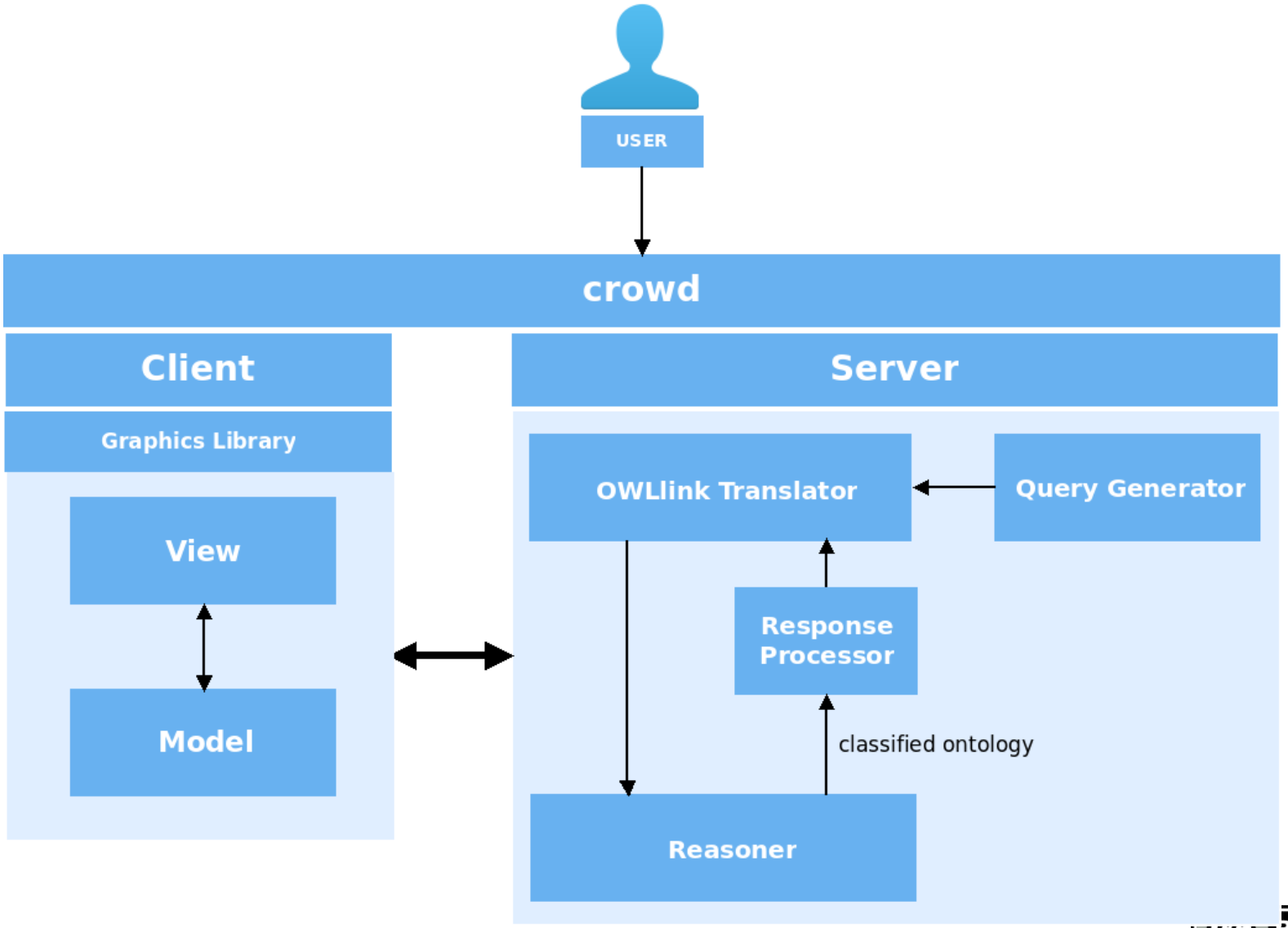
crowd Architecture



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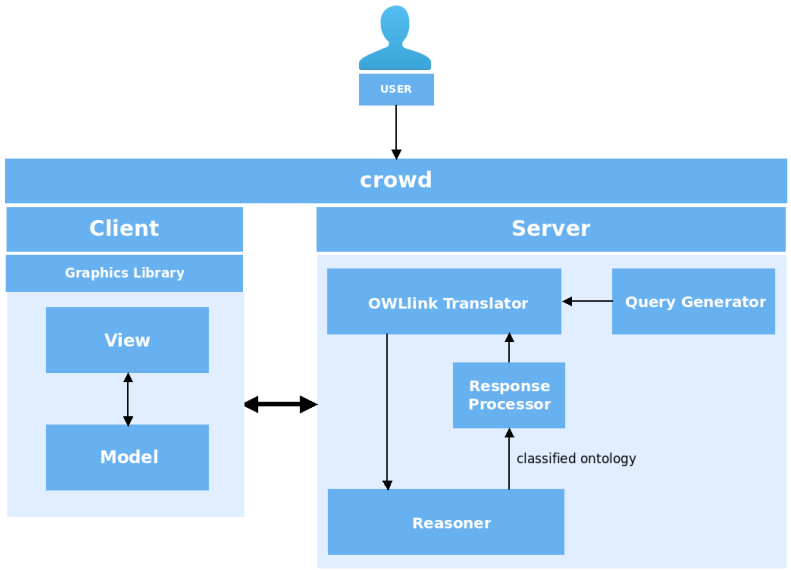
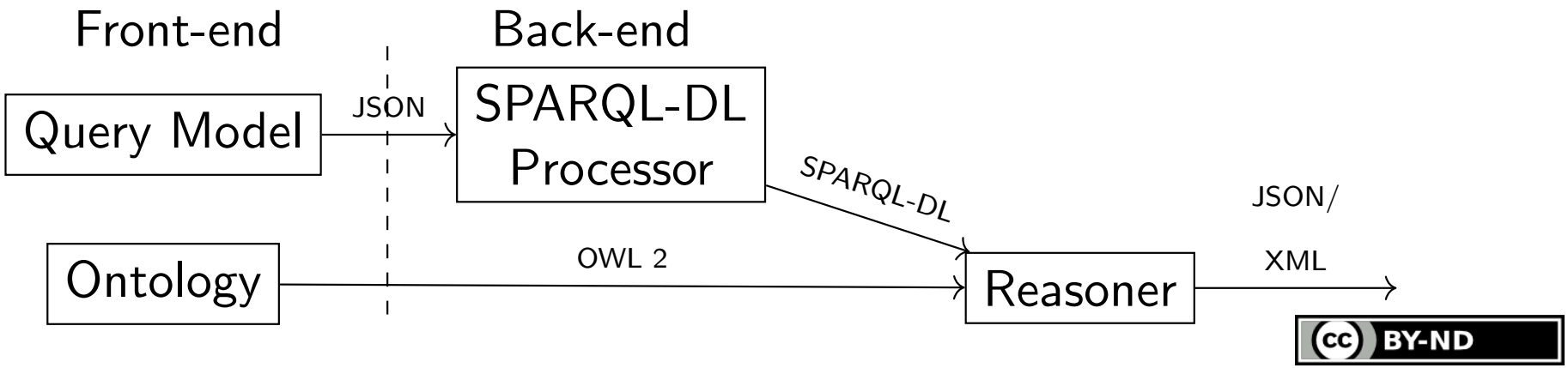


Back-end steps for processing the query modelled by the user.



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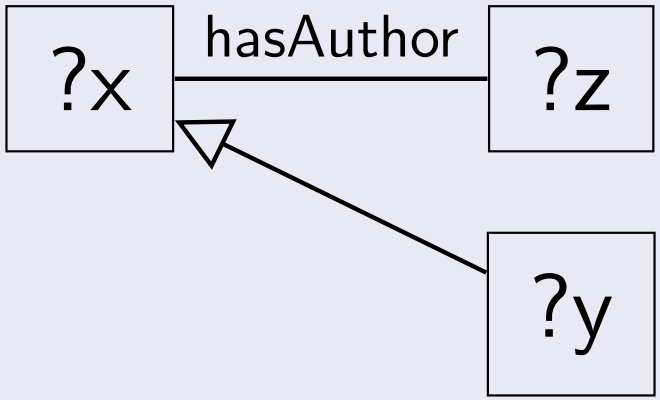
A query expressed in UML-like class diagram model.



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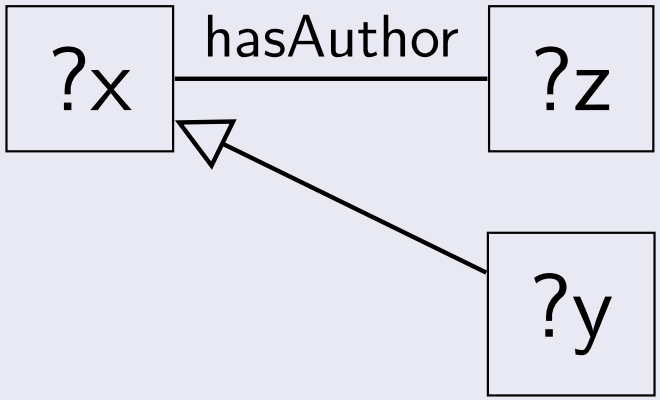

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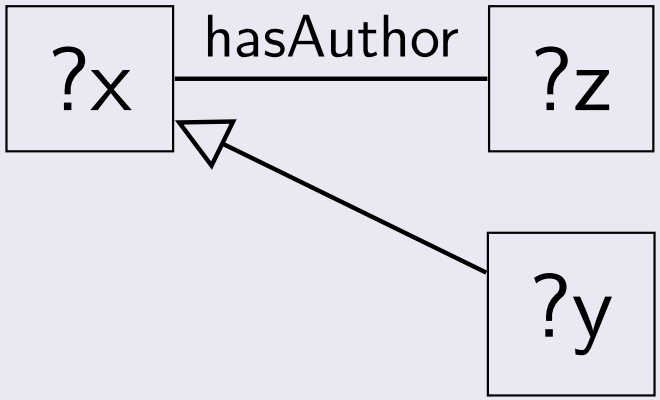

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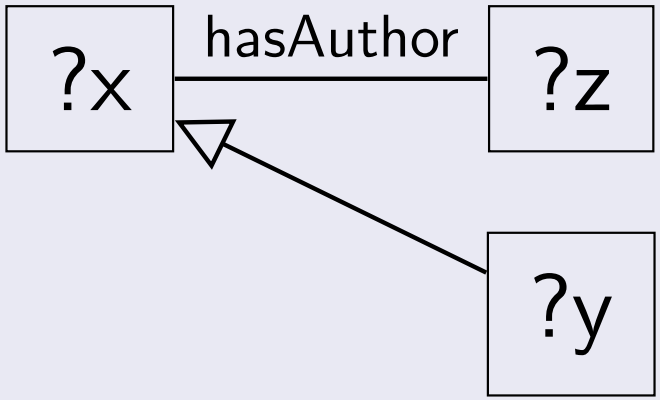

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}
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Thank you!

Questions?

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