

Cornetto Database Design

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Cornetto Workshop

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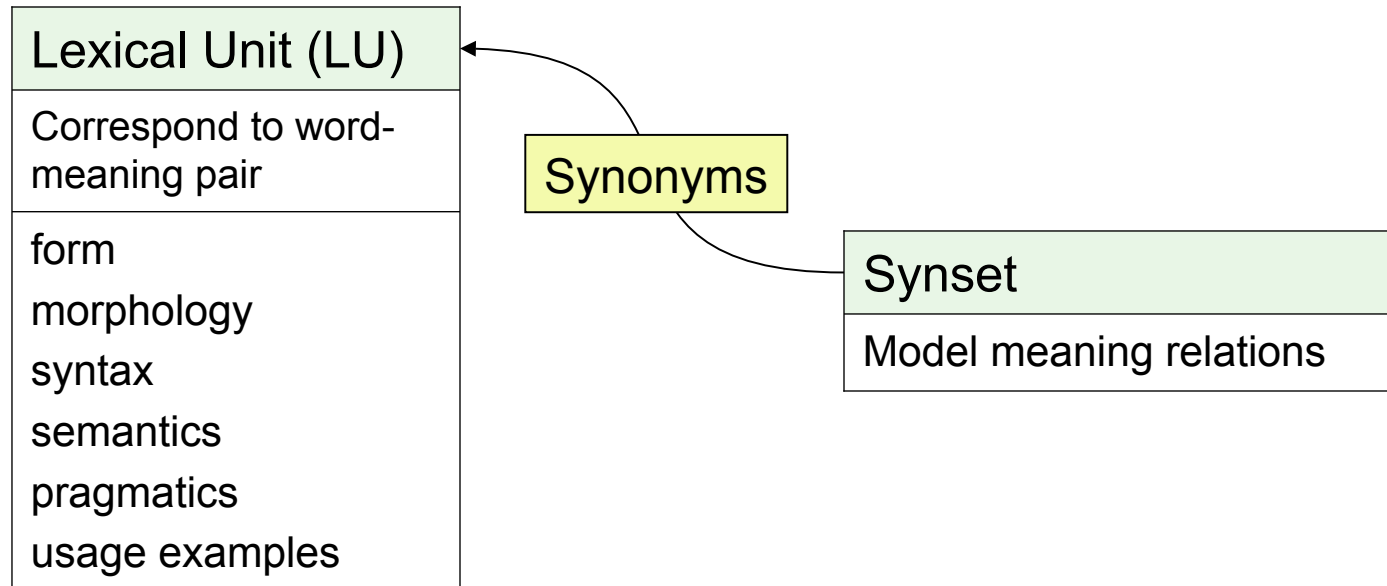
Overview

- Database Backend
- Data Organization
- Accessing the Cornetto Database
 - HTTP interface
 - Cornetto DB Client
- Demo

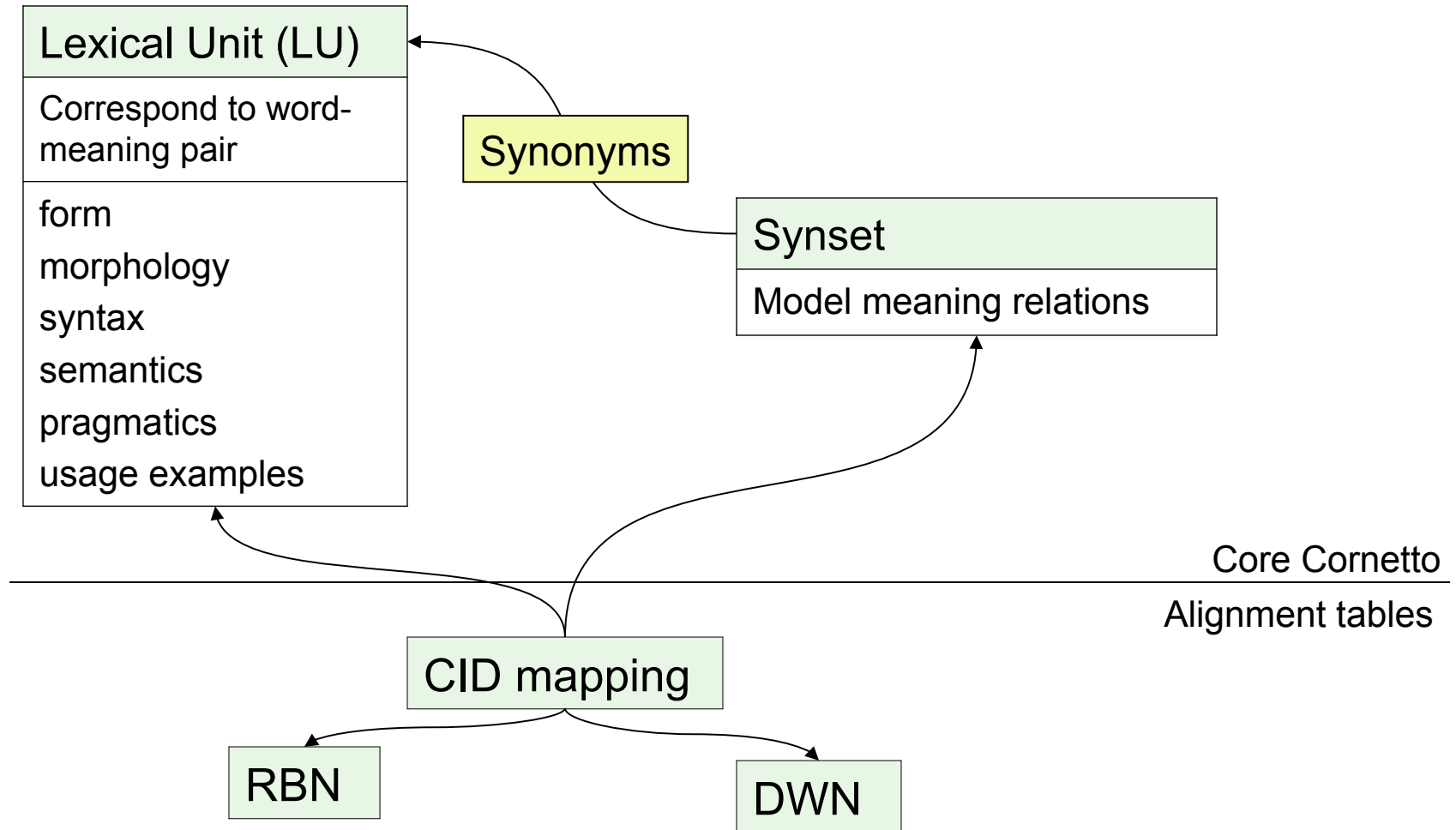
Database Backend

- Stored in XML database
 - Robust data format
 - Convenient exchange of data
 - Fixed schema easy data validation
- Currently: Berkeley DB XML
- Publishing format: XML files

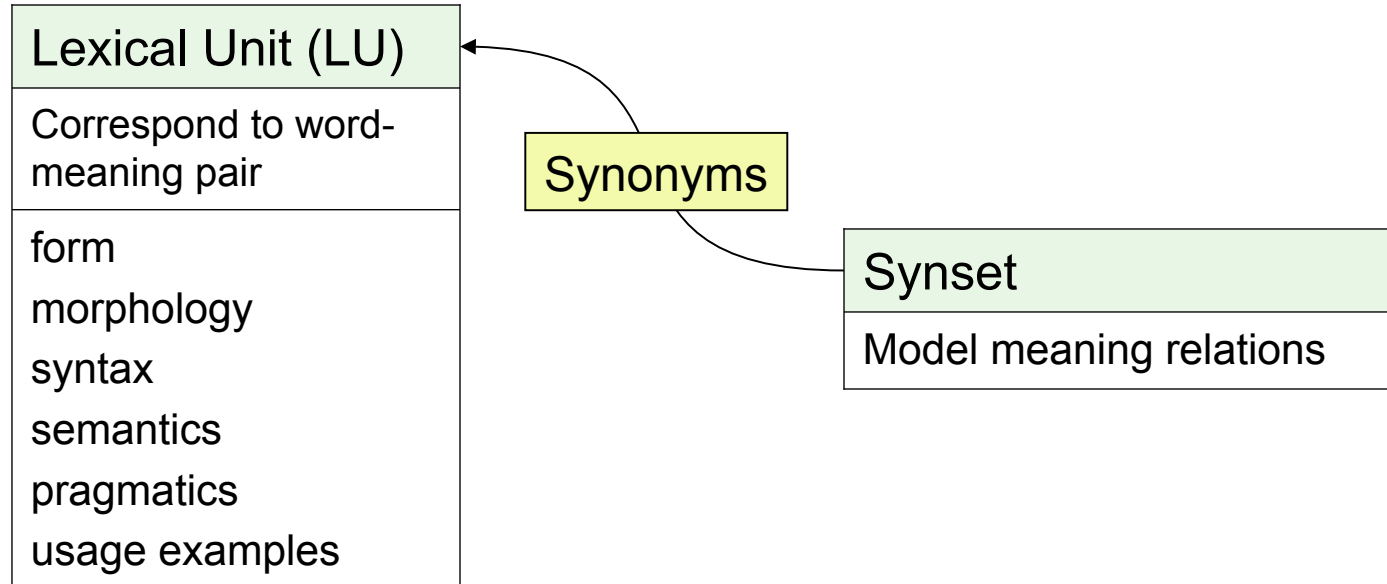
Data Organization



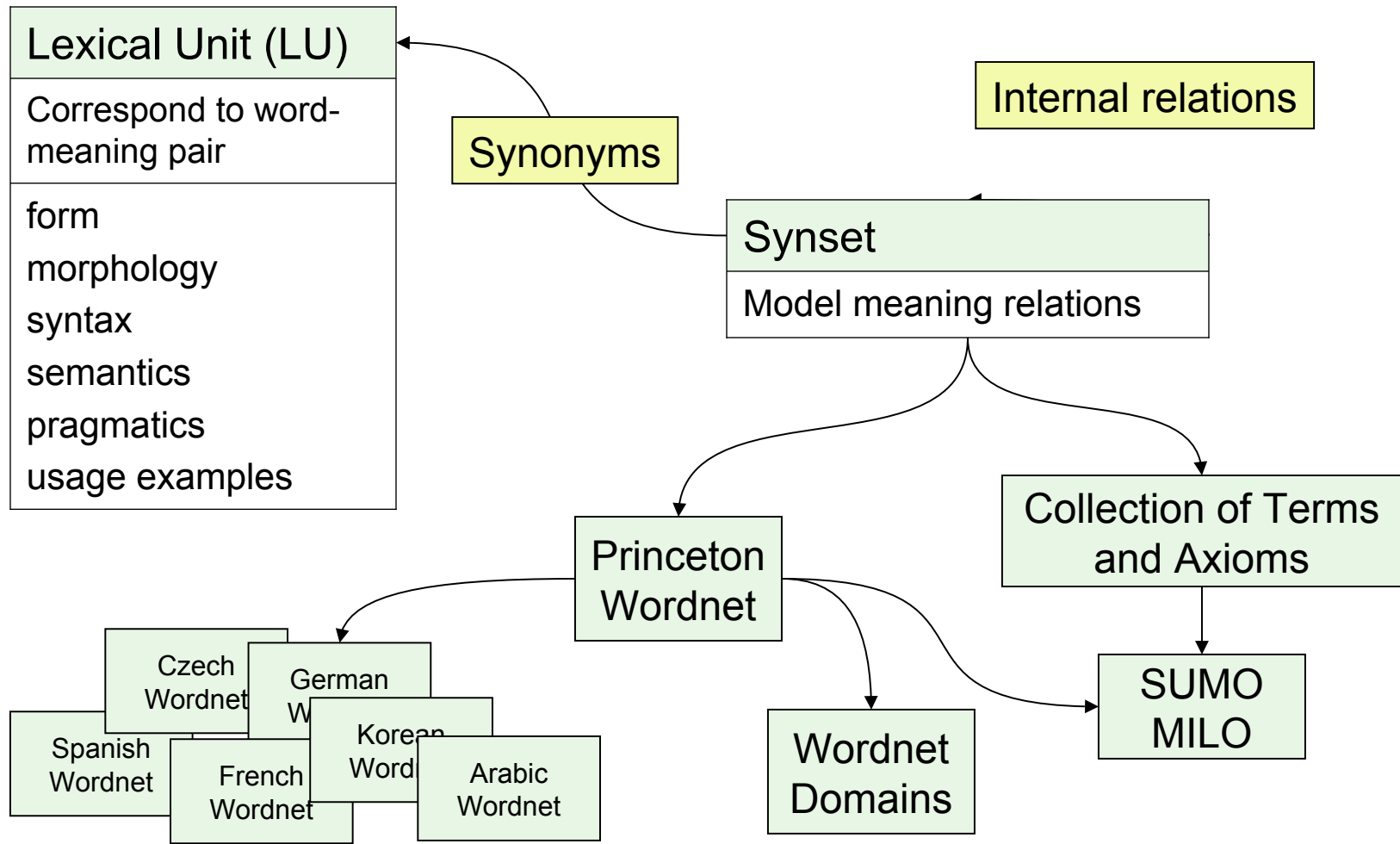
Data Organization



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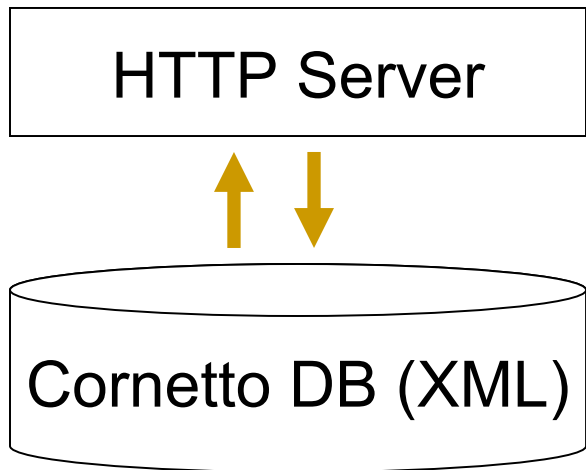


Accessing Cornetto



Access data directly through
XML DB API (e.g. XQuery)

Accessing Cornetto

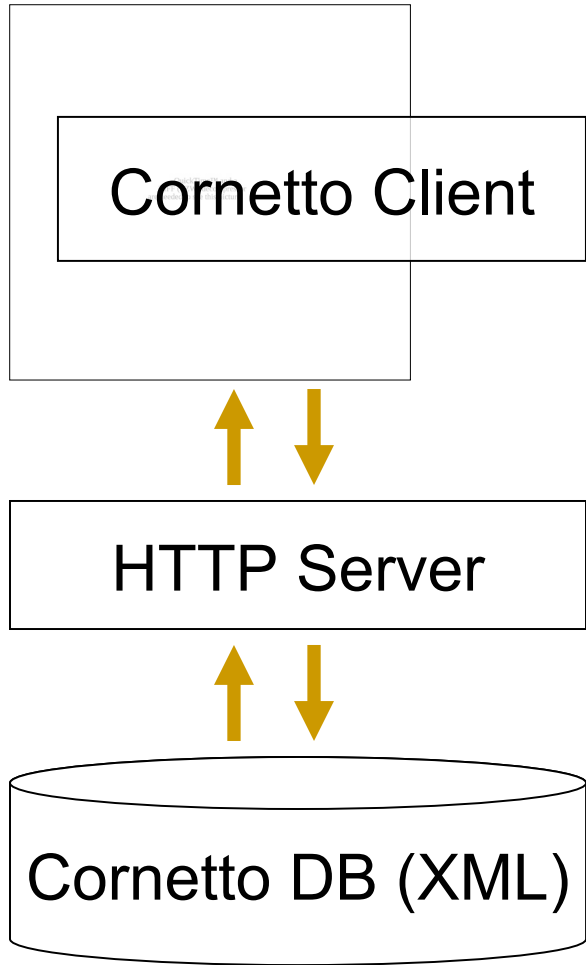


Predefined commands
through HTTP API

```
https://my.server.nl/cdb_syn?  
action=queryList&word=huis
```

Access data directly through
XML DB API (e.g. XQuery)

Accessing Cornetto



Graphical user interface for
“human-friendly” access to
Cornetto

Predefined commands
through HTTP API

```
https://my.server.nl/cdb_syn?  
action=queryList&word=huis
```

Access data directly through
XML DB API (e.g. XQuery)

Cornetto Client Demo

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- Access to Cornetto is possible in three ways
 - directly via XML DB,
 - through HTTP API, and
 - through a graphical web-based Client.

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- Cornetto data is stored as XML.
- The DB is organized around Lexical Units and Synsets.
- Access to Cornetto is possible in three ways
 - directly via XML DB,
 - through HTTP API, and
 - through a graphical web-based Client.

Thank you for your attention!

References

Berkeley DB XML

<http://www.oracle.com/technology/documentation/berkeley-db/xml/index.html>

Cornetto Client

<http://www.let.vu.nl/onderzoek/projectsites/cornetto/demo.html>

Mozilla Firefox

<http://www.mozilla.com/en-US/firefox/>

Horák et al. 2006

Horák, A., Pala, P., Rambousek, A., Povolný, M. (2006). DEBVisDic – First Version of New Client-Server Wordnet Browsing and Editing Tool. *Proceedings of the Third International Wordnet Conference (GWC-06)*, Jeju Island, Korea.

Complete list of internal relations

HAS_HYPERONYM
HAS_HYPONYM
HAS_XPOS_HYPERONYM
HAS_XPOS_HYPONYM

NEAR_SYNONYM
XPOS_NEAR_SYNONYM

NEAR_ANTONYM
XPOS_NEAR_ANTONYM

HAS_HOLONYM
HAS_HOLO_LOCATION
HAS_HOLO_MADEOF
HAS_HOLO_MEMBER
HAS_HOLO_PART
HAS_HOLO_PORTION

HAS_MERONYM
HAS_MERO_LOCATION
HAS_MERO_MADEOF
HAS_MERO_MEMBER
HAS_MERO_PART
HAS_MERO_PORTION

INVOLVED
INVOLVED_AGENT
INVOLVED_PATIENT
INVOLVED_INSTRUMENT
INVOLVED_LOCATION
INVOLVED_RESULT
INVOLVED_DIRECTION
INVOLVED_SOURCE_DIRECTION
INVOLVED_TARGET_DIRECTION

ROLE
ROLE_AGENT
ROLE_PATIENT
ROLE_INSTRUMENT
ROLE_LOCATION
ROLE_RESULT
ROLE_DIRECTION
ROLE_SOURCE_DIRECTION
ROLE_TARGET_DIRECTION

CO_ROLE
CO_AGENT_PATIENT
CO_AGENT_INSTRUMENT
CO_AGENT_RESULT

CO_PATIENT_AGENT
CO_PATIENT_INSTRUMENT
CO_PATIENT_RESULT
CO_INSTRUMENT_AGENT
CO_INSTRUMENT_PATIENT
CO_INSTRUMENT_RESULT
CO_RESULT_AGENT
CO_RESULT_PATIENT
CO_RESULT_INSTRUMENT

CAUSES
IS_CAUSED_BY

HAS_SUBEVENT
IS_SUBEVENT_OF

MANNER_OF
IN_MANNER

BE_IN_STATE
STATE_OF

FUZZYNYM
XPOS_FUZZYNYM

XML Structure Lexical Unit

XML Structure Synset

