Software setup instructions

# GraphDB

## Installation

* Download GraphDB: <https://www.ontotext.com/products/graphdb/> (register to receive an email with the download link)
* Install from exe, dmg, deb and rpm depending on your operating system.

Other option for people familiar with [Docker](https://docs.docker.com/install/): <https://github.com/MaastrichtU-IDS/graphdb/>

Get the [GraphDB standalone zip file](https://www.ontotext.com/products/graphdb/)

Build the image: docker build -t graphdb .

Run it: docker run -d --rm --name graphdb -p 7200:7200 -v /data/graphdb:/opt/graphdb/home -v /data/graphdb-import:/root/graphdb-import graphdb

## Use

* Create a new user: Setup > Users and Access
* Create a new repository (each repository is a different triplestore):
  + Setup > Repositories
  + Enter the repository ID only
* Browse the triples: Explore > Graphs overview
* Documentation: <http://graphdb.ontotext.com/documentation/standard/>

# RML

## Installation

* Install Java 8
  + <https://www.java.com/en/download/>
* Execute the standalone jar.
  + Download the jar: <https://github.com/RMLio/rmlmapper-java/releases/download/v4.3.1/rmlmapper.jar>
  + Run it:

java -jar rmlmapper.jar -m path/to/mapping/file/{mapping file name}.ttl -o path/to/output/file/{output file name}.nt

## Use

* Examples: <http://rml.io/RML_examples.html>
* RML specification: <http://rml.io/spec.html>
* When converting JSON data to RDF and using [iterators](http://rml.io/spec.html#iterator) in RML, it is useful to know how to formulate JSONPath queries to refer to sections of a JSON structure. Here are some resources to help with this:
  + <https://goessner.net/articles/JsonPath/> [JSONpath introduction]
  + <https://support.smartbear.com/alertsite/docs/monitors/api/endpoint/jsonpath.html> [JSONPath introduction and examples]
  + <https://jsonpath.com/> [JSONPath online playground / testing tool]

# LIMES

## Download

* Download latest jar file from: <https://github.com/dice-group/LIMES/releases>
* **OR** build the latest version from source by cloning the repository located here: <https://github.com/dice-group/LIMES/> and following the build instructions in the README.md

## Use

* Documentation: <http://dice-group.github.io/LIMES/user_manual/>
* To link information between two or more triplestores (or SPARQL endpoints), LIMES needs an XML configuration file to specify the details of the triplestores and linking parameters. For more information on how to create this file, see the documentation page: <http://dice-group.github.io/LIMES/user_manual/configuration_file/> and the slides for Lab 5 of this course.
* Command for executing LIMES: java -jar path/to/{limes-core-${version}}.jar path/to/{configuration-file}.xml