Practical Session 8
Towards an application of your knowledge graph

Today, we will continue to work on your project. You should now normally have an ontology (from practical session 6) and RDF data populating it that you have obtained for existing knowledge graphs (from practical session 7). You might have also identified non-RDF data to add to your knowledge graph and possibly looked at transforming it. All of this should ideally be integrated into a graph on your local blazegraph installation so that it can be queried.

The objective of today is to look at validating all of this in the context of a more concrete scenario, i.e. to envision an application for your knowledge graph, check your competency questions, and, through the initial phase of designing this application, check that what you have done is aligned. This should allow you to identify how your ontology and your knowledge graph might evolve in future iterations of the project, if it were to continue.

Reminder: For the project, you are asked to build a knowledge graph of children stories. The idea is that your knowledge graph could be used by someone researching a particular theme, plot, type of character, or other aspects of children stories to find relevant ones, to compare stories with each other on those aspects, or to analyze trends in the way stories have evolved over time and cultures. As the lectures and practical sessions go, we will learn more about how that could be done and how we could use it.

At the end of all the practical sessions, you will have to submit:

1. The RDF code of the knowledge graph.
2. A short report briefly describing the steps you have gone through, the choices you have made, any SPARQL query you have used, and a description of any code you might have written.

So, keep notes of what you do and find!

T1: Collectively discuss (in the whole group and with the lecturer/tutor moderating) what are the advantages of having built a knowledge graph for children stories: What can it enable/make easier when developing applications? How is it different from relying on other kinds of information resources (documents, databases, ...)?

T2: Individually relate that discussion to your own knowledge graph. Think of an application that could be developed using it. Who would be the user? Can you draw a quick mock-up of its interface?

T3: Draw an architecture diagram of that application (which should naturally include a triplestore) and make a list of common queries that will be used by that application. How do those relate to the competency questions you have identified while designing the ontology? Do they require that inferences be enabled to be answered based on your ontology and your knowledge graph?

T4: Try to execute (some of) the queries identified above. Are there things missing in your ontology and your knowledge graph for your application? List ways in which your ontology and knowledge graph could evolve so that they become more useful for that application and others.