

Hands-on Exercise & Exam

Time: 45 minutes. You are allowed to use any material, and any Internet resource.

EXERCISE 1 (RDF)

Describe the information in your “course participants data” (excluding the vacation of your dreams) in the RDF/RDFS format. In particular:

- Write a (complete and correct) RDF document, using the Turtle format
 - If possible, use URIs defined in well-known vocabularies for the properties
 - If possible, use URIs defined in well-known vocabularies for class names
 - If not possible (because no suitable URI is found, or due to time limitations), it is perfectly acceptable to define properties in your own namespace (use @prefix ex: <http://example.com>)
 - RDFS definitions (for types, properties, relationships, ranges, domains) are optional (not required, due to time limitations)
- Ensure that the generated RDF is valid, using the on-line validators.
- Use the features of the W3C Validator (or the RDF Converter) to generate an image of the RDF graph.
- You should submit the (complete) RDF document in Turtle format, and the graph image.

SUBMISSION INSTRUCTIONS

- Collect all the required files in a single archive (.zip)
- Name the archive as follows: *Lastname_Firstname_ex1.zip* (example: Corno_Fulvio_ex1.zip)
- Upload the resulting file to OwnCloud, at the following URL:
<https://baltea.polito.it/owncloud/index.php/s/5uQSIJbFnnEukBs>

RESOURCES AND LINKS

- Official (W3C) RDF Validator for RDF Documents serialized in the RDF/XML format
<https://www.w3.org/RDF/Validator/>
- RDF Validator for RDF Documents serialized in the Turtle format
<http://ttl.summerofcode.be/>
- Converter of RDF documents among different formats
<http://www.easyrdf.org/converter>
- W3C Recommendations relevant to RDF:
Concepts and Abstract Syntax - <https://www.w3.org/TR/2014/REC-rdf11-concepts-20140225/>
Turtle language - <https://www.w3.org/TR/2014/REC-turtle-20140225/>
RDF Schema - <https://www.w3.org/TR/2014/REC-rdf-schema-20140225/>
- Useful namespaces
<http://dbpedia.org/sparql?nsdecl> – list of all predefined namespaces in DBpedia SPARQL endpoint
dbo: DBpedia Ontology (concepts); dbr: DBpedia resources (individual resources)