

# Hands-on Exercise & Exam

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

## EXERCISE 1 (RDF)

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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 (optionally, also in RDF/XML format), and the graph image.

## SUBMISSION INSTRUCTIONS

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- 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 MediaFire, at the following URL:  
[http://www.mediafire.com/filedrop/filedrop\\_hosted.php?drop=dc1f25448f88653475a6b481080a84e5fae08219b2d6395e6b1b50289b8e139e](http://www.mediafire.com/filedrop/filedrop_hosted.php?drop=dc1f25448f88653475a6b481080a84e5fae08219b2d6395e6b1b50289b8e139e)

## RESOURCES AND LINKS

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- 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)