Practice 2: Knowledge representation

We ask you to build an OWL ontology with Protégé. The ontology should have a scope similar to the ontology presented in the laboratory sessions. The domain of the ontology could anyone except the medical one.

Tasks

At least the ontology should have:

- **30 concrete classes (leaves in the hierarchies**) organized within one or several hierarchies with, at least, depth of 3. It is not needed all branches to be 3 levels deep. There should be at least **one case of multiple inheritance**.
- **8 object properties** with domains, ranges and characteristics.
- **8 data type properties** with domains, ranges and characteristics.
- **20 restrictions** that employ some of the properties associated to some of the classes.
- **8 individuals** of several classes with concrete values for the associated properties.
- **Annotations** of, at least, the classes that include some restrictions, which explain what you want to represent with those restrictions. You also need to annotate the most general classes (the roots of the hierarchies), describing what you want to represent with each hierarchy.

To build the ontology we recommend you follow the guidelines described in the slides about "ontology engineering".

Delivery

Practices should be done in groups of 2 students. Each group should do one delivery in the task in the virtual campus. You just need to submit the OWL file generated by Protégé. That file should be named **«P2_[NameSurname1-NameSurname].zip»**

There will be an interview with the teacher at the laboratory class following the delivery.

Similar or identical deliveries will have a 0 mark.

Delivery dates

• Until April 20 at 20h (maximum grade 10, first call).
• Until May 27 at 12h (maximum grade 7, first call).
• Until June 12 at 12h (maximum grade 5, second call).