

Obligatory Modeling Assignment 2017

Handed out	14 November 2017
Deadline	28 November 23:59
Max Length	2000 words + ontology/formulas/queries/results
Contact persons	Rune Sætre and Jon Atle Gulla
Delivery	email to satre@idi.ntnu.no AND jag@idi.ntnu.no

Exercise 1.

Build an RDF(S) ontology of your own interests and hobbies.

It may include sports, cultural interests, politics, and any other activity that you like to spend your time on. Make sure that the ontology captures taxonomic relations and describe commonalities and differences across your interests. Also try to model characteristic properties of each interest. The ontology should not exceed 30 classes and 30 instances. The modeling language should be Turtle or a similar syntax. You can use any modeling software.

Exercise 2.

Describe in English the interests that you have modeled in Exercise 1. Every aspect of the ontology should be explained in the text.

Exercise 3.

Formulate two SPARQL queries that demonstrate how you can

- retrieve interests that are very different from your other interests
- figure out which interests are most similar

Send the final answer (RDF-file and text document) by email to satre@idi.ntnu.no and jag@idi.ntnu.no by 2359 on November 28th.

Frequently Asked Questions (FAQ)

- 1. Bør vi lenke til andre ontologier (f.eks. dbPedia)?**
Ja, gjerne, det heter jo tross alt Linked Data 🍷
- 2. Hva slags editor foreslår du at vi bruker?**
Jeg har mest erfaring med Protegé... Den var bra nok sist jeg sjekket. Den er også blant de eldste.
- 3. Skal vi levere inn en eller to filer?**
Selv om det ofte er lurt å dele taksonomien og instansene i to filer, så kan dere også godt legge alt i samme fil...
- 4. Har dere noen forslag til verktøy som kan brukes, og ikke minst fungerer, til kjøring av SPARQL-queries?**
Ta en titt på Turtle- og SPARQL-presentasjonene igjen... De brukte for eksempel Twinkle. SPARQL-tabben i Protege er også bra...
- 5. Når vi skal beskrive aspekter ved ontologien vår, er det da "nok" å beskrive hvilke klasser, properties og instanser vi har, og hva de er ment for?**
Ja
- 6. The differences and similarities should be among the different classes of interest or subclass of each interest? For example, if there are two classes of social activity and cooking, should I compare these two or compare the subclass of each of them within itself and not with the other type of activity? I think if I am modeling the hobbies, then the differences and similarities within a class should be discussed, am I right?**
I think you need to add some properties for all your classes in order to model the similarities and differences. The SPARQL-query for similarity would most probably return two classes of the same superclass, while "the most different interests"-query would probably come from different superclasses, right?
- 7. Should we use the open or closed world assumption?**
This post could provide some useful insight: http://semanticweb.com/introduction-to-open-world-assumption-vs-closed-world-assumption_b33688
- 8. Protege has OWL as its basis and even if you are choosing Turtle format, it's not having ".ttl" as the file extension, is it okay or I should go for notepad ?**
Both ".owl" and ".ttl" extension names are fine... And you can rename the file from owl to ".ttl" after you have saved it anyway, as long as the content is turtle.
- 9. På Exercise 1 står det vi skal lage en RDFS ontologi, kan vi bruke OWL (prefix owl: i stedet for rdfs:) i denne ontologien? F.eks owl: differentFrom?**
Ja, det er helt greit å bruke litt fra OWL også... Det står til og med litt om det i pensum (2.1.2 omtrent).
- 10. Jeg får ikke til å lenke min ontologi opp mot dbpedia. Jeg har f.eks en interesse "golf" som er en instans av sommeridrett, og ønsker å få lenket den opp til dbpedia, men får ikke til å gjøre dette via object propertyies til <http://dbpedia.org/page/Golf>. Har dere noen tips?**
Har du prøvd forslagene i 12-14 fra 2016 under?