Welcome to Semantic eScience 2011 Fall!

*We would like to have students - particularly those who asked to do the first assignment in English - type questions that they have about using the tools in advance of the class. This way Weijing and Jim can review in advance. We would like to have everyone feeling like they do not have remaining questions on how to get started with the tools after the class.

Jim: I would like to note that the folks who have signed in here haven't given themselves names. It would be helpful to be able to put a name to the color here.

IMPORTANT: If you're using CMap, please follow these updater instructions: http://www.ihmc.us/groups/coe/wiki/7b40c/Updater_for_V503.html

If you want to describe things in terms of values look at the bottom of this page for how to use XSD facets: http://www.co-ode.org/resources/reference/manchester_syntax/

==Please type your Questions here==

*1. how much detail are you looking in the written response part of the homework?

Jim: We are looking for minimal write ups to describe the extensions informally, enough to see what has been changed and where. For the second question, writing up the queries in plain english will help us determine what your intention was.

*2. will there be any tutorials or something on Monday to help us with hw 1 with regard to using the suggested tools for ontology?

Jim: Yes. We will spend a significant amount of time modeling in CMap, and possible Protege as well.

*3. When you merge two ontologies, lets say you want to show a relationship between them. For example, a wine ontology and a cheese ontology. How could you do a relationship for each wine, what cheese(s) to consider?

See MealCourse for examples of how to create pairings between various foods and wines.

*4. In the example wine ontology, why is the 'Fruit' class out of the 'ConsumableItems' class?

Jim: Looks like it was never modeled that way. It simply has no superclass, and SweetFruit and NonSweetFruit are not direct subclasses of Fruit, but are members of a union class. Other than that, it's unclear why it's out of ConsumableThing. Putting it in there may help with reasoning.

*5. Why are some items, like Red and White colour both a class and an instance?

Jim: Note that there is no class "Red", but a class of "Red Wine". "Red" is a quality (color) of wine, and is therefore an instance. "Red Wine" is the class of wines that have the color "Red".

*6. In protege, how do 'Inherited anonymous classes' work? How did wine get properties like colour and flavour?

Jim: Second question first: Wine mostly gets its properties of color and flavor from the grape that it's made from. While the wine making process can impart some differences of flavor (like new oak barrels), most of the flavor comes from what kind of grape is used, what kind of weather it's seen in the season, when it was picked, and what kind of soil it was grown in. :-}
Inherited anonymous classes are superclasses that, because a wine is a subclass of x, and x is a subclass of an anonymous class, then the wine class also is a subclass of that anonymous class. These anonymous classes are designed to express property restrictions, which is how assertions about color and flavor get added to a particular instance. I will go over this in class in more detail if we have the time.

*7. I've followed the Pizza Tutorial and extended the wine & food example by adding an actual menu and tying the items in it to the wine&food ontology. However, the tutorial does not go on to describe how to ask questions to the reasoner -- are there any good reasources for moving forward to part 2 of the homework? (in protege)

Jim: DL Query is the best way to query the ontology using reasoning:
http://protegewiki.stanford.edu/wiki/DLQueryTab

*8. I noticed that the wine ontology imports/depends on (what is the correct term?) another ontology called Food. When I open wine.rdf in Protege, the food ontology is also imported and presented in class structure. In CMap, as far as I can determine, this does not happen. What is the correct/intended behaviour? Should it affect our assignment?

Jim: There is a checkbox in the import CMap from URL and XML files called "Exclude Imports". Uncheck that if you want to have all imported ontologies show up as well. A quick check shows that

*9. Suppose I have an individual that is an instance of the RedMeatCourse class (maybe PotRoast). It seems like I should be able to start with the name of the individual course and use the hasDrink property of the class to retrieve appropriate wines. How do you use DL Query to retrieve individuals that are related to other individuals through class relationships? A simpler case: I can't figure out how to use DL Query to retrieve the class RedMeatCourse by giving it the individual PotRoast. It seems like if I could do that, I could go from the RedMeatCourse class to appropriate wines.

Jim: You would make an exemplar course that has PotRoast as the serving and then, because PotRoast is RedMeat, the course would be classified as a RedMeatCourse.

*10. The assignment says that the queries we pose to the ontology "can be queries, inference or a combination". Can you give an example of an inference using DL Query?

Jim: DL Query uses inference to do everything. PotRoast could be identified as a "RedMeat that hasDoneness value WellDone", for instance. That would turn up PotRoast.

==Attendance==

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Demo Topics for ontology development: for ontology development:

- TV
- Videogames
- Comics
- twitter / social media (most popular choice)
- flight info
- music (2nd most popular)
- cars
- food
- entertainment (3rd most popular topic)

Demo Usecases for social media (from above)

- Analyze differences between venues
- What kind of info from each?
- measure impact of each
- popularity
- create a new kind of social media <----Jim's choice for topic

Creating a new social media 'thingy' based on the semantic web
Recomend new friends and likes from friends
(note: there are different kinds of friends, and these relationships can evolve over time)
what are
friends?
"people we know and like"
"people we share experences with" <---(we aren't friends with everyone)
"people we share commonalities with" <--- (true, but not enough)
likes?
Tasks to do still:
front left people liking things
back left people with common interests
back right people with vested interests in each other
front right suggesting new friends

Our CMap: http://cmapspublic3.ihmc.us/rid=1JVB08CSG-1WJ8ZFG-DV5/facesmack.cmap
usr+passwd: escience
mid right different kinds of friends
levels of trust within relationships

Things within our app

- Image
- Person
- Social group
- Relationship
  - friendship
  - romantic relationship
- Community

making properties
_____Of (ex person is MemberOf social group)
Has_____ (ex social group HasMember person)
these two relationships are inverses of each other

 cmap conventions
    rounded box:: class
    square box:: instance
    nobox:: literal
    line ::
    dashedline :: domain&range

object property:: relation between two classes
data property:: relation between an object and a literal

sub properties:: tie together properties, also key for tying together ontologies

Intro To Logic
person(a) => Mortal(a)

Person(Socrates)

Mortal(Socrates)

.....you can infer socrates is a mortal if we already knew that socrates is a person, and all persons are mortal