# Project #1: Design an OWL Ontology

This project is due on Tuesday, Oct. 21. It will count for 15% of your overall grade.

Working in teams of three to four people each, you will design an OWL DL ontology (or set of ontologies) for an application domain of your choice. Ideally, this domain should be something you know about. Since you are also expected to create a set of instances that demonstrate the use of your ontology, you should also choose a domain that has data you can access. Your team is encouraged to meet with me at least once before the project is due in order to make sure that you are on track.

**Important Dates:**

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| Team Formation | Sun., Oct. 5 |
| Submit final ontology | Tue., Oct. 21 |
| Class presentation | Tue., Oct. 21 |

**Team Formation:**
By midnight, Sunday, Oct. 5, you need to send me an e-mail that lists your team members and identifies your chosen application domain.

**Final Ontology:**
You will be graded on the breadth of coverage of the domain and completeness and accuracy of your class descriptions. I am expecting that you will describe roughly 50 to 100 classes and properties. Your ontologies must be valid OWL DL ontologies and should use the rich modeling constructs of OWL as much as possible. You should use a DL reasoner to ensure that your classes are satisfiable and that your ontology does not lead to unintended inferences. You should make use of rdfs:label and rdfs:comment to document your classes and properties. In addition you should create one or more files that commit to your ontology and which contain enough realistic instances that demonstrate how your ontology can be used. These instances should be based on real data, but can be either entered manually or you can write a program to translate them to RDF. Your final ontology (or ontologies) should be in OWL XML format. Be sure to set an xml:base so that the ontologies are location independent. You should submit a ZIP file by e-mail to heflin@cse.lehigh.edu.

**Class Presentation:**
Your group must provide a 12 minute presentation to the class that discusses your ontology. You will be graded on the quality of the presentation and your ability to communicate the main features of your ontology. It is recommended that you prepare a slideshow presentation.

**Grading:**
Your grade on the project will be composed of the following components:

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| Final ontology | 60% |
| Class presentation | 30% |
| Individual grade | 10% |

The individual grade will be based on team evaluation forms where you will be asked to evaluate the contribution of each member of your team, including yourself.