(If you are doing a tool, then consult with instructor)

- Define an OWL ontology that supports inferencing over some domain. Your default namespace should be:
  - http://www.codesupreme.com/ontologies/yourname
- Your ontology and data should be posted on a public URL.

Your project report should be divided into sections.

Section A.

- A1 A text description of your ontology and the kinds of problems it can help solve.
- A2 List of namespaces and classes in your domain
- A3. List of properties
- A4. Most interesting Jena / SPARQL query (can be a combination of CONSTRUCT, SELECT, RULES, etc.) that showcases your ontology
- A5. The URLs of your ontology and your data. Your ontology written in RDF/N3 or RDF/XML should have the suffix .owl and your data should have .n3, if written in RDF/N3 and .rdf if written in RDF/XML.

Section B.

- Your OWL ontology

Section C.

- Your data.

Section D.

- A summary of your search for other ontologies that relate to your ontology. What did you like, not like? What did you reuse?

Section E.

- Other interesting example Jena / SPARQL queries that illustrate the capabilities/ features of OWL as related to your ontology.
Other Requirements.

Be sure to use the owl namespace: @prefix owl: <http://www.w3.org/2002/07/owl#>.

Your ontology should not only address a domain problem but demonstrate your understanding of the capabilities of OWL. In your ontology make certain that:

- All classes are subclasses of owl:Thing

Your OWL ontology should include at least 2 of the following for Classes and Individuals

- use of owl:differentFrom -- to distinguish two different individuals
- use of owl:equivalentClass -- to state that two classes are synonymous
- use of owl:sameAs -- to state the two individuals are the same
- use of owl:complementOf to define a class that contains all individuals that are not members of some other class

Your OWL ontology should include the following OWL properties:

- declare as either owl:DatatypeProperty or owl:ObjectProperty
- use of owl:inverseOf -- to define an inverse property (often from hasXXX to isAXXXOf
- use of owl:TransitiveProperty
- use of owl:SymmetricProperty
- use of owl:FunctionalProperty

Your OWL ontology should demonstrate your understanding of the following OWL properties:

Restriction Class: use of owl:Restriction with

- onProperty and allValuesFrom
- onProperty and :owl:someValuesFrom

Submit to Blackboard.

- Report (Word is fine)
- OWL ontology
- Data