Assignment 10

Course- CS 548
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Use the N3 notation to make the following statements in OWL. Use clinic: as the namespace qualifier in qnames for resources and properties, with whatever namespace you choose. Declare all classes as OWL classes. Ensure that your results are syntactically correct N3 before submitting.

In this assignment, using the n3 notation, I declared all classes of clinic database as owl classes. After compiling the n3 definitions and sample data using the online validator http://rdf-translator.appspot.com/, generated the rdf triples. After the triples were generated, I downloaded the Jena Engine from its website and extracted the module to a separate folder. Added the sparql.bat file path to the environmental variables and executed the SPARQL queries to display two results-:

1. Show the results of queries that return a list of treatments provided by radiologists
2. A list of patients who receive treatment from radiologists

My N3 notation definition has all the below classes and properties-:

1. Surgeons are a type of Provider
2. Radiologists are a type of Provider.
3. Internists are a type of Provider.
4. Surgery is a form of Treatment.
5. Radiology is a form of Treatment.
6. DrugTreatment is a form of Treatment.
7. ProvidedBy is a property that relates Treatments to Providers.
8. ReceivedBy is a property that relates Treatments to Patients.
9. RadiologistProvided is any form of Treatment that is provided by a Radiologist. It is not necessarily the same as Radiology; a radiologist may prescribe medication.
10. A RadiologyPatient is any Patient who receives treatment from a Radiologist.
11. A patient has a unique patient id.
12. Two patients cannot share a patient id.

In this submission zip archive-

In the root folder, there is README.pdf, SPARQL Queries, N3 Code, RDF Triples and video file that demonstrates the execution of the SPARQL queries.