CREATE YOUR ONTOLOGY (Academia)

Assignment 2

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Academia:

This report is an illustration guide to my own ontology which shows a structure of an academia. Through this ontology one can easily go through all the activities that are taking place under Protégé.

My total class count is 53 with sub class count of 52 and annotation count of 112

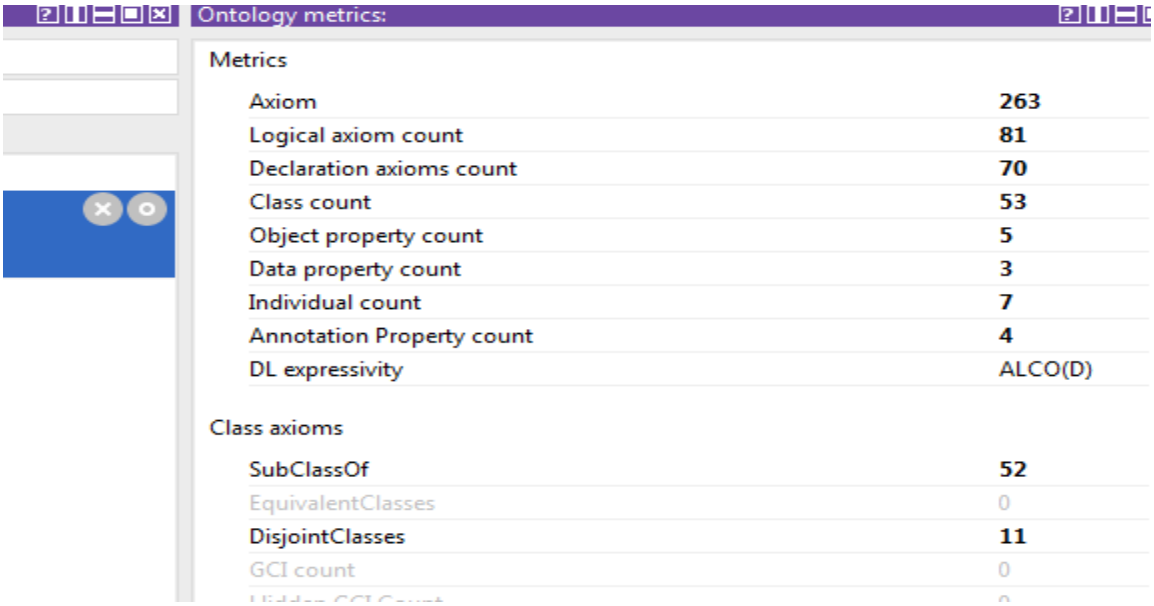

Illustration 1.1

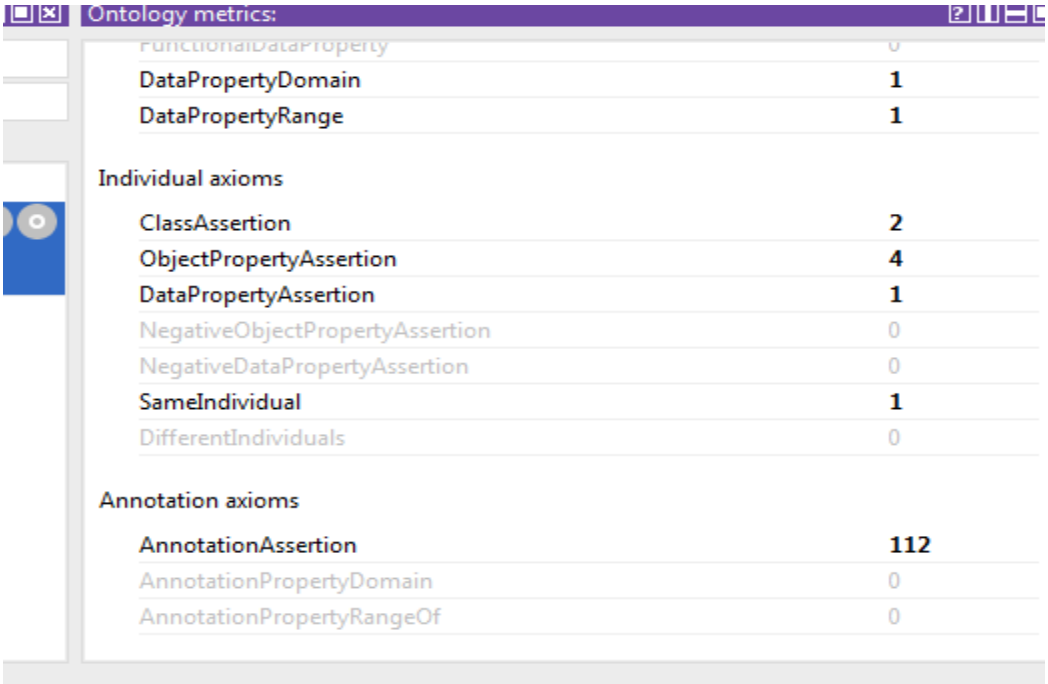

Illustration 1.2

Major Parent Classes:Academia

Following are the major sub-classes that were created under Academia

- Employees
- University
- Students
- Finance matters
- Publications
- News and Events
- Libraries

1.1 Employees

Employee is the label given to the class and the definition is defined through annotation.

Subclass for employee will be

- Admin staff
- Assistant
- Senior Management
- Teaching Faculty

Admin Staff is further categorised into

- Clerical Staff: Defined as Personal who performs routine clerical tasks
- Systems and maintenance: This category is given a comment as it is a very broad category and cannot be directly defined.

Assistant is further categorised as

- Teaching Assistant: Aiders to provide teaching
- Research assistant: This group is involved in research and do publications.

Senior Management

- Dean
- Director

Teaching Faculty

In this category I used Suffix as 'Professors' whenever needed

- Assistant professor
- Associate professor
- Full Professor
- Visiting Professor
- Lecturer
- Post Doc

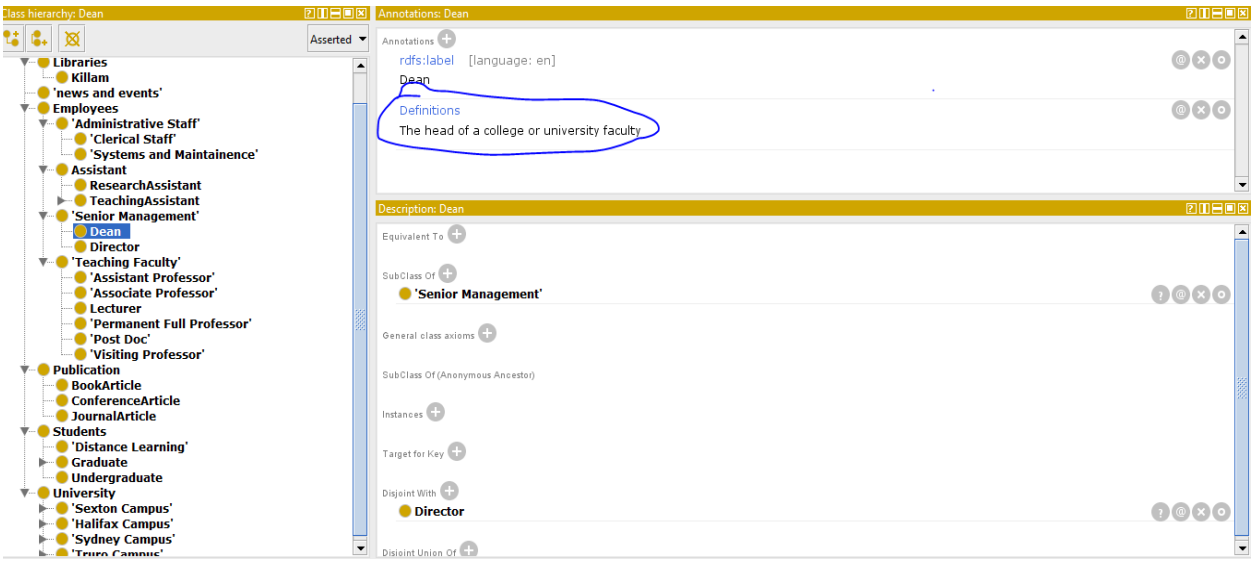

Illustration1.1

1.2 Publications

There are three sub classes for Publications. It is defined in the annotation and clearly given a label.

Following are the classes for Publication

- Book Article
- Conference Article
- Journal article

1.3 Students

Students are the learners who will be enrolled in the university and they could be under different levels

Following are the general categories to which they will be categorised

- Distance Learning
- Graduate
- Undergraduate

1.4 University

University got 4 different campuses

Suffix of campus is used to categories

- Halifax Campus
- Sexton Campus
- Sydney Campus
- Truro Campus

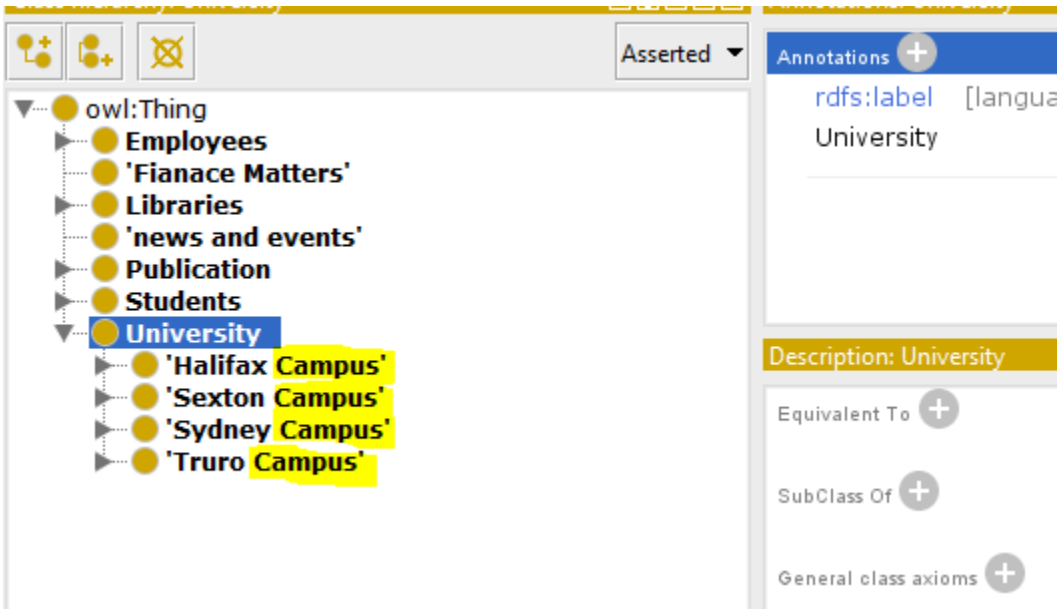

Illustration 1.2

Further sub-classes on all those four campuses is shown in the image below

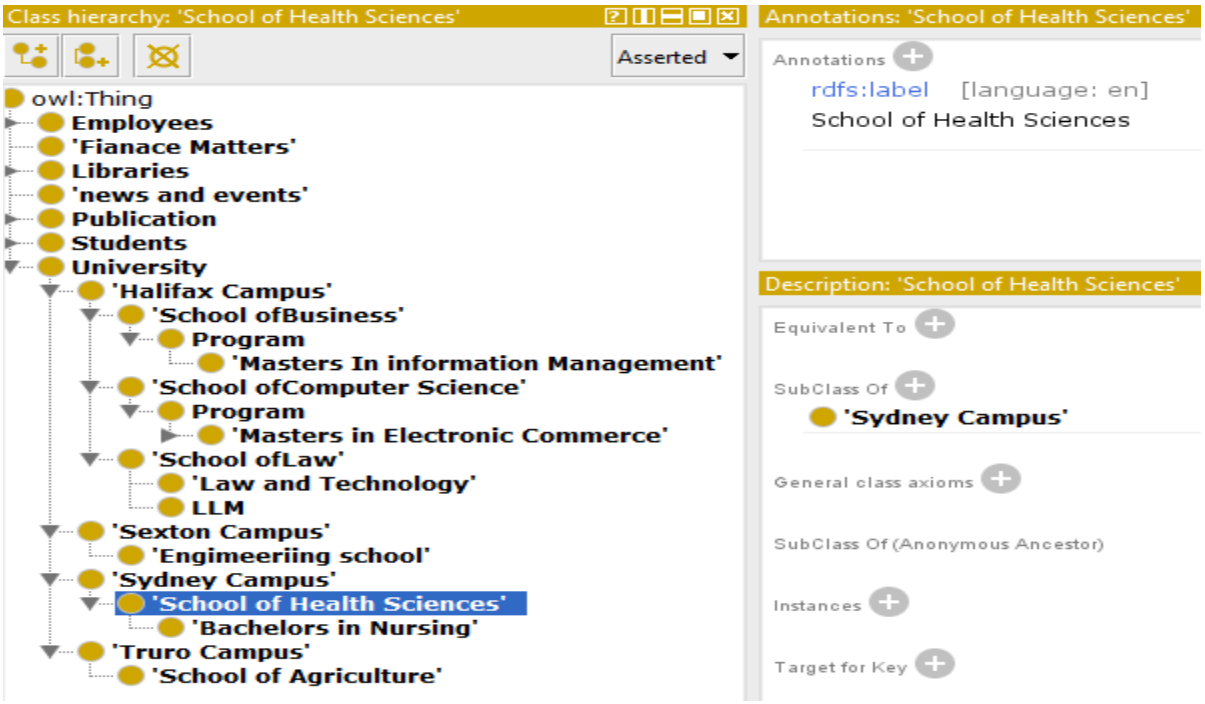

Illustration 1.3

1.5 Finance matters

For this class I gave annotations and defined the category as well

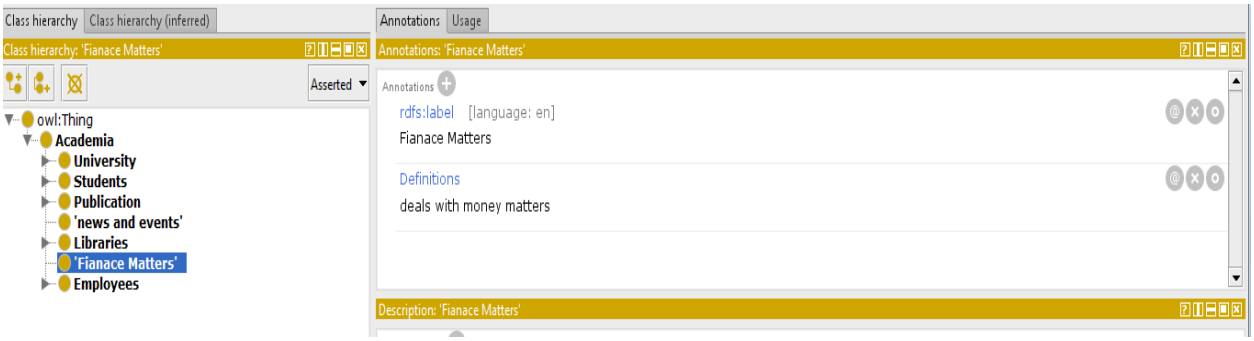

Illustration 1.4

1.6 News and Events

New and event is sibling class like library and Finance matters

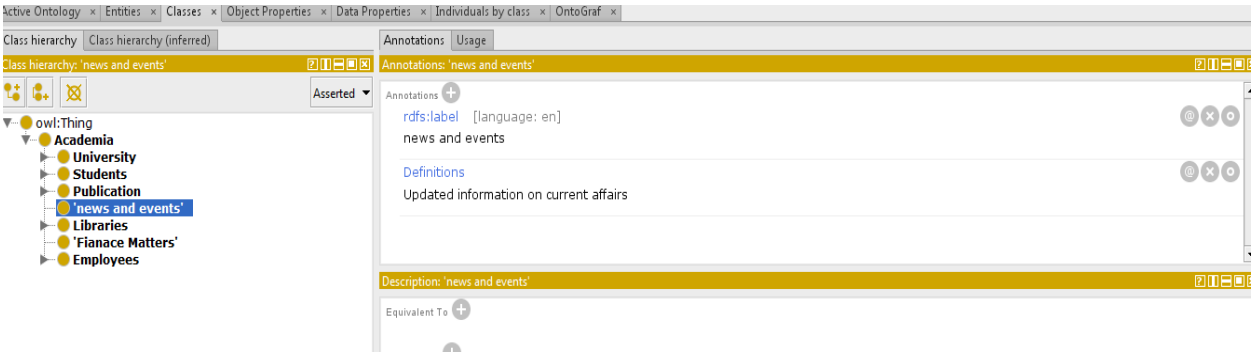

Illustration 1.5

1.7 Libraries

This got a further child class of Killam which describes where the library is located

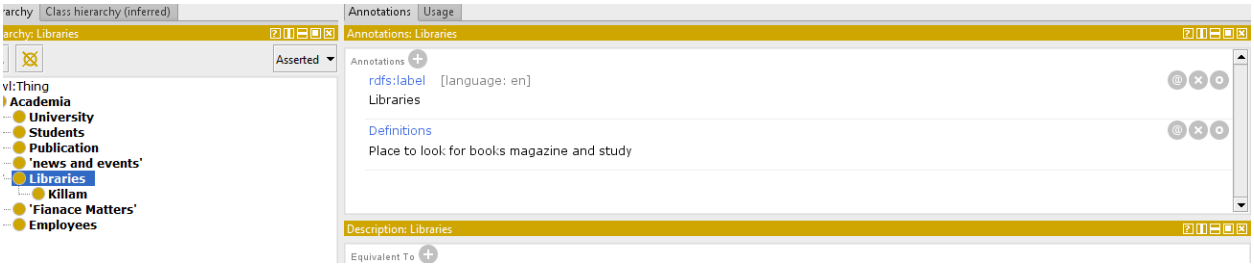

Illustration 1.6

2.1 Creating Object Properties

I selected Object properties which can be selected from the windows-→Tabs--→Object Properties.

Each property is defined or given a synonym.

I created five different properties as illustrated below:

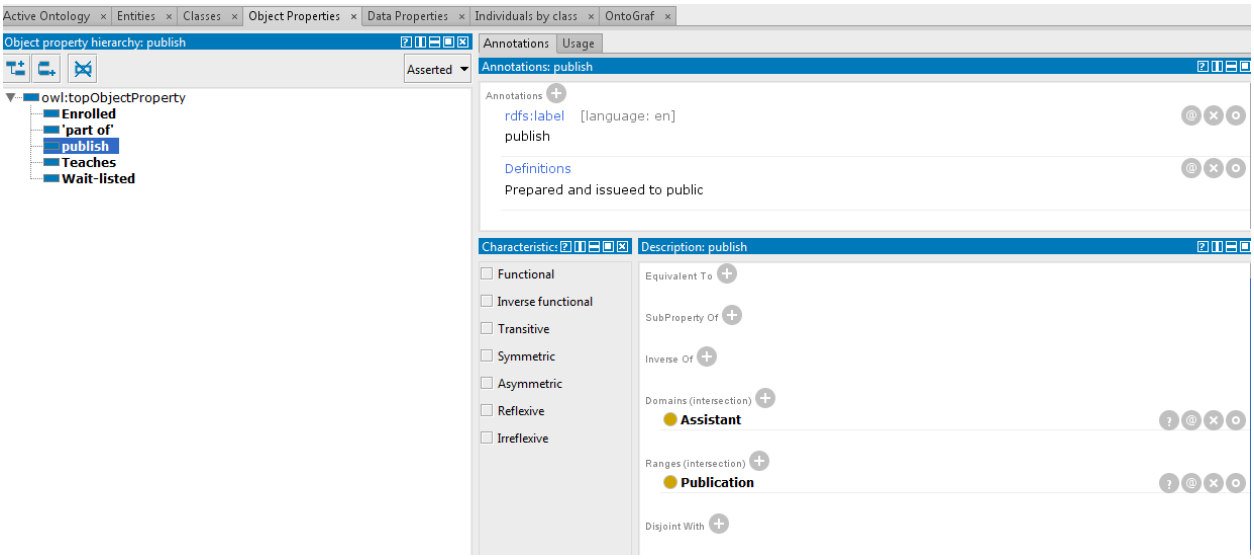

Illustration 1.7

2.2 Domains vs Ranges

Inorder to create a relationship for the object property we need to define the boundary and select the class for domain and its range

e.g An assistant (research) ⟹ Publication (Journal)

3.1 Individuals

In order to create object property assertion, we will have to define the individuals or instances.

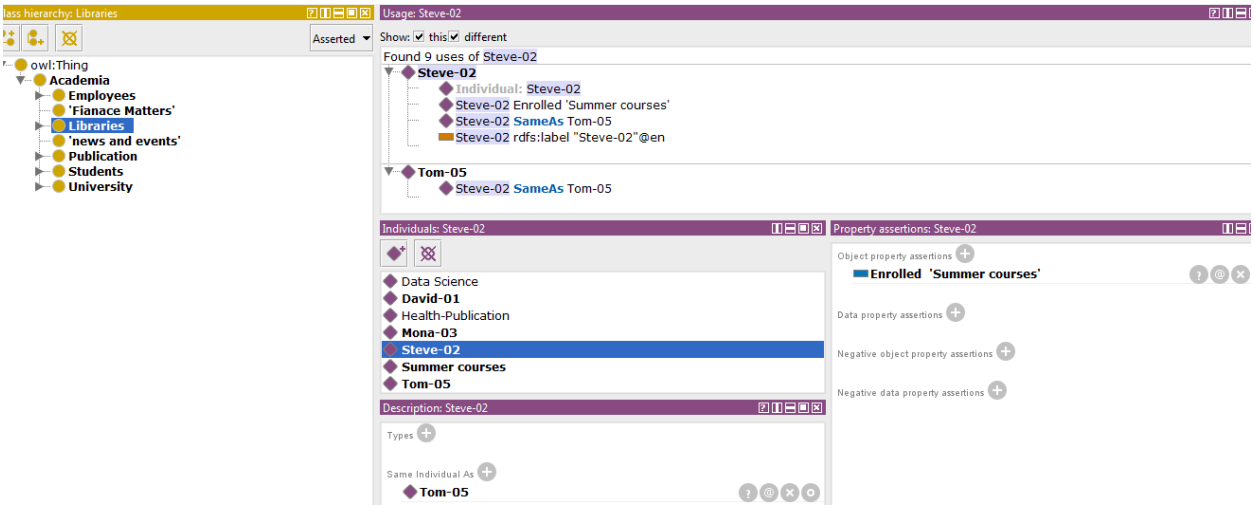

Illustration 1.8

3.2 Object property assertion

Once we defined domain,range and the instances we can create the relationship between them through Object property assertion

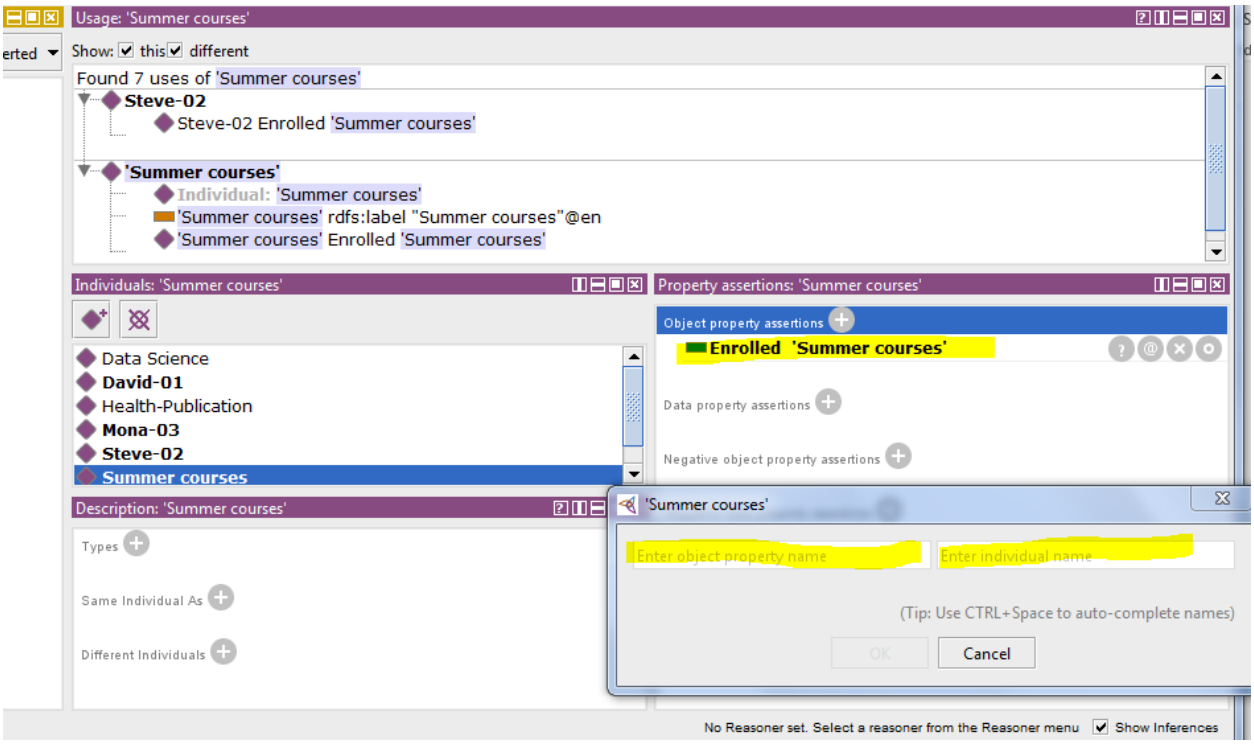

Illustration 1.9

Here can clearly show us the individual Steve is being enrolled in summer courses and similarly Mona who is another individual, research assistant published a Journal in Health.

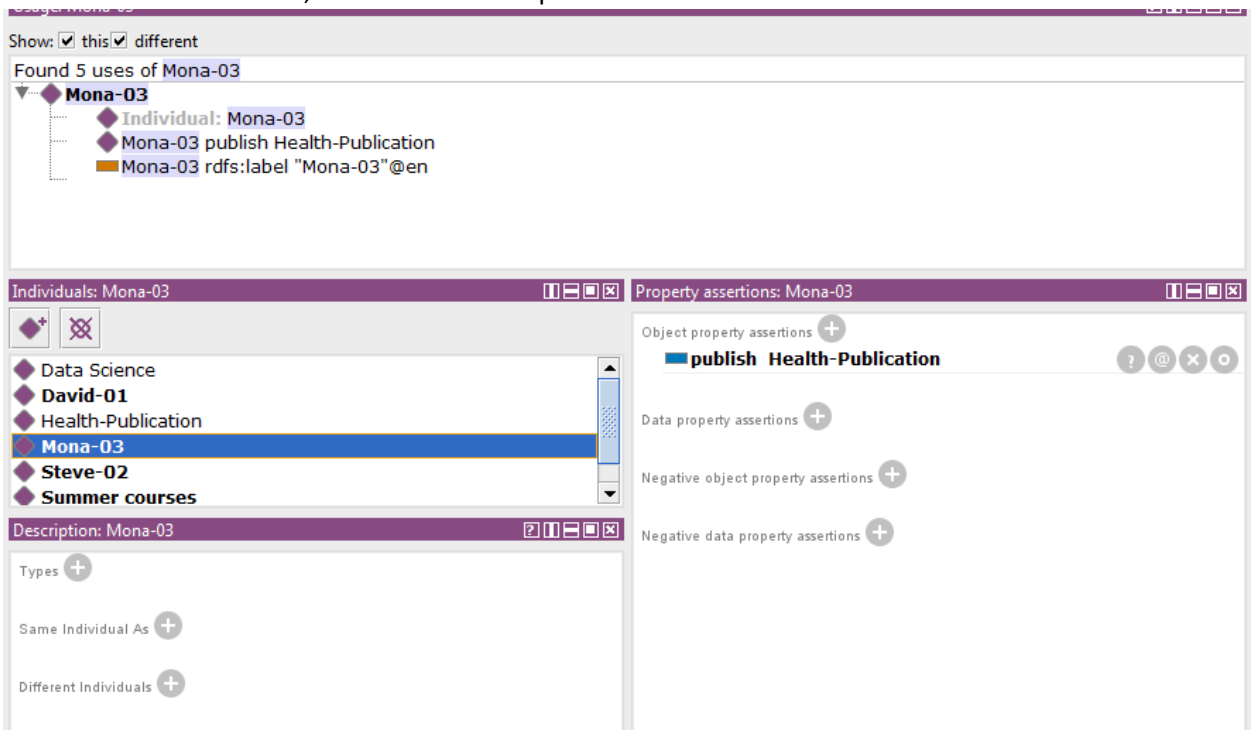

Illustration 1.10

3.3 Data Property Assertions

Protégé helps in generating id to the individuals like student id, Employee id.Following illustration shows Tom-05 who is similar individual like Steve-05 got a student id of CS 101 but this individual id cannot be shared by Steve-05.Its only the winter intake courses that both these individuals will share.

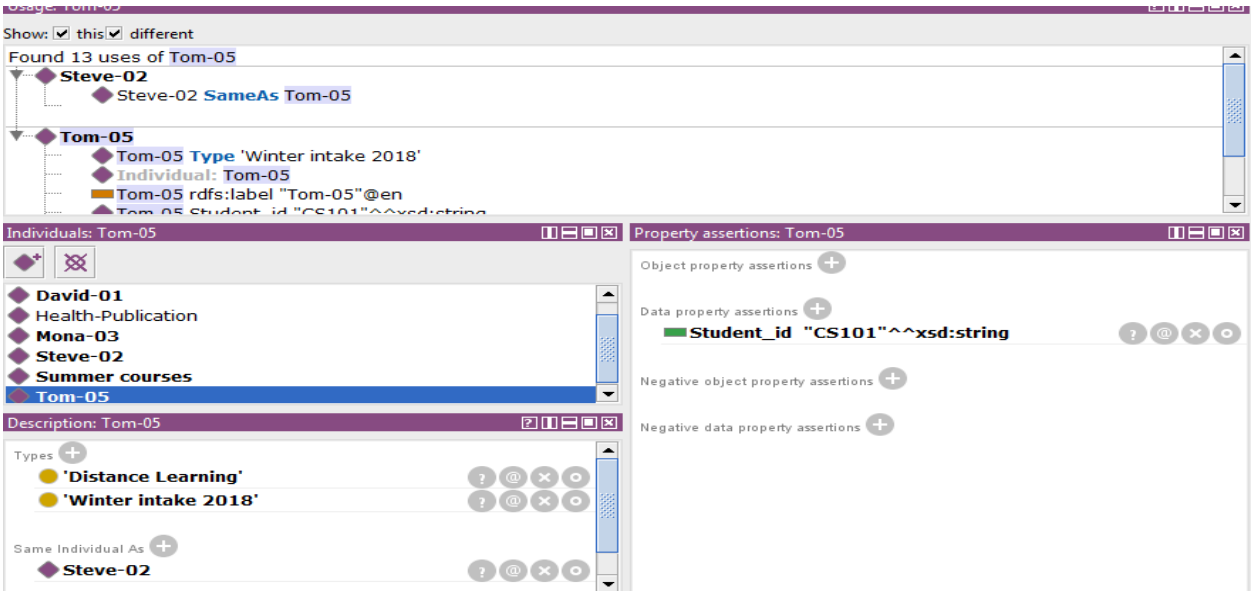

Illustration 1.11

Onto Graf

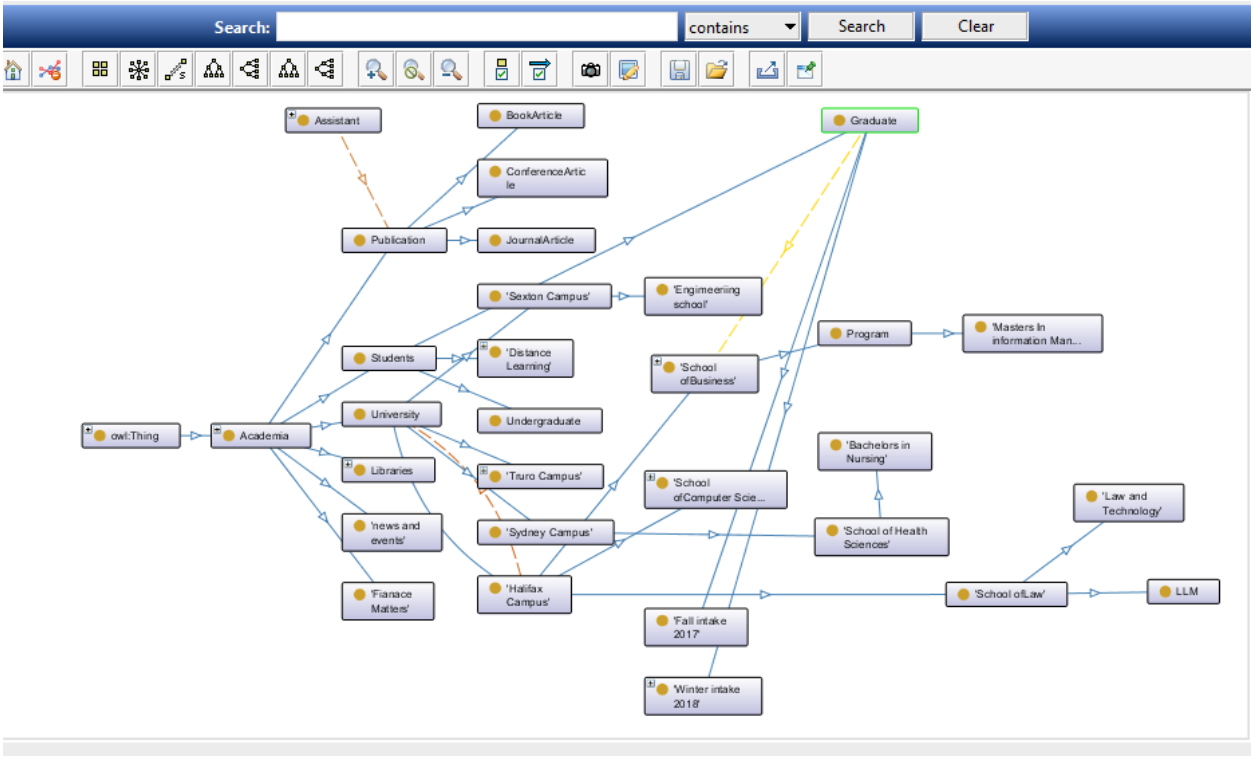

Illustration 1.12