Modeling in OWL – Ontology Engineering

• Tools:
  – Protege Ontology Editor

• Ontologies
  – Wine ontology, Pizza ontology
Use Protege to model the following “University” Domain

• A lecture needs one lecturer
  \[- \text{Lecture} \subseteq \exists \text{needs}.\text{Lecturer}\]

• Professor is a lecturer
  \[- \text{Professor} \subseteq \text{Lecturer}\]

• Each professor must teach at least one lecture
  \[- \text{Professor} \subseteq \exists \text{teach}.\text{Lecture}\]

• A student has to attend at least one lecture
  \[- \text{Student} \subseteq \exists \text{attend}.\text{Lecture}\]
• A studentworker is an employee
  • \( \text{Studentworker} \subseteq \text{Employee} \)

• A studentworker is a student
  • \( \text{Studentworker} \subseteq \text{Student} \)

• bob is a studentworker
  • \( \text{Studentworker}(bob) \)

• A student can not be an employee
  • \( \text{Student} \subseteq \neg \text{Employee} \)
  • \( \text{Student} \cap \text{Employee} \subseteq \bot \)