

SEMANTIC WEB – SPRAWOZDANIE 5

1. OWL Reasoning - Class Inference

- a. Include the modified ontology in the report.

semweb2012_lab5_krol_potepa_01.owl

- b. Explain (in polish) the inferred relations and conclusions.

Kierowca autobusu jest kierowcą oraz jest osobą, która prowadzi autobus, który jest pojazdem.

2. OWL Reasoning - Instance Inferences

- a. Include the modified ontology in the report.

semweb2012_lab5_krol_potepa_02.owl

- b. Explain (in polish) the inferred relations and conclusions.

Kierowca białego van-a jest kierowcą van-a, jest on osobą, która kieruje van-em, będący białą rzeczą.
Szalona krowa jest niczym (Nothing) ponieważ nie ma ona nadklasy (przodka).

3. OWL Reasoning - Reasoners

a. What are the results? Write them down or provide a screenshot of the answer in the report.

>> semweb2012_lab4_krol_potepa.owl <<

```
Classifying 66 elements
Classifying: 100% complete in 00:00
Classifying finished in 00:00

owl:Thing
  ontology1337785985437:Artist
    ontology1337785985437:Artist1
    ontology1337785985437:Artist2
    ontology1337785985437:Artist3
  ontology1337785985437:Author
    ontology1337785985437:JanJaworski
    ontology1337785985437:JanKowalski
    ontology1337785985437:JohnJohnovich
    ontology1337785985437:KamilKrol
    ontology1337785985437:KrzysztofPotepa
    ontology1337785985437:PaulPaulovich
  ontology1337785985437:Book = ontology1337785985437:CD
    ontology1337785985437:ACapellaMusicCD
      ontology1337785985437:ACapellaMixMusicCD
    ontology1337785985437:AlternativeCD
      ontology1337785985437:AlgortoBandCD
    ontology1337785985437:ClassicalMusicCD
    ontology1337785985437:ComputerScienceBook
      ontology1337785985437:DesignPatternsBook
    ontology1337785985437:FolkCD
    ontology1337785985437:GuitarMusicCD
      ontology1337785985437:JimiHendrixMusicCD
    ontology1337785985437:JazzCD
    ontology1337785985437:JazzMusicCD
    ontology1337785985437:MetalCD
      ontology1337785985437:DeathMetalCD
      ontology1337785985437:PowerMetalCD
      ontology1337785985437:SymphonicMetalCD
    ontology1337785985437:MetalMusicCD
    ontology1337785985437:NewAgeCD
      ontology1337785985437:AlgortoBandCD
    ontology1337785985437:PopCD
      ontology1337785985437:AlgortoBandCD
      ontology1337785985437:BeatlesCD
    ontology1337785985437:RockCD
      ontology1337785985437:BeatlesCD
    ontology1337785985437:RockMusicCD
    ontology1337785985437:RomanceBook
      ontology1337785985437:HouseOnTheRiverSideBook
    ontology1337785985437:ThrillerBook
  ontology1337785985437:DVD
    ontology1337785985437:Comedy
      ontology1337785985437:NotAnotherMovieDVD
    ontology1337785985437:Romance
      ontology1337785985437:LoveEverywhereDVD
    ontology1337785985437:Thriller
      ontology1337785985437:NotAnotherMovieDVD
  ontology1337785985437:Magazine
    ontology1337785985437:ComicsMagazine
      ontology1337785985437:DonaldDuckMagazine
    ontology1337785985437:ComputerScienceMagazine
      ontology1337785985437:ChipMagazine
      ontology1337785985437:ComputerWorldMagazine
    ontology1337785985437:EnterMagazine
    ontology1337785985437:GardeningMagazine
      ontology1337785985437:GardeningForEveryone
    ontology1337785985437:PornMagazine
  ontology1337785985437:MusicInstrument
    ontology1337785985437:Guitar
    ontology1337785985437:Instrument1
    ontology1337785985437:Instrument2
```

```
ontology1337785985437:Instrument3
ontology1337785985437:Music
ontology1337785985437:ACapellaMusic
ontology1337785985437:GregorianChoral
ontology1337785985437:JewishCantillation
ontology1337785985437:MuslimAnaseheed
```

>> people+pets.owl <<

Classifying 61 elements

Classifying: 100% complete in 00:00

Classifying finished in 00:00

```
owl:Thing
  people:adult
    people:elderly
      old:lady
    people:grownup
      people:driver
        bus:driver
        truck:driver
        lorry:driver
        van:driver
          van0:man
      people:man
        van0:man
      people:woman
        old:lady
  people:animal
    people:cat
    people:dog
    people:duck
    people:person
      cat:liker
        cat:owner
          old:lady
      dog:liker
        dog:owner
      people:grownup
        people:driver
          bus:driver
          truck:driver
          lorry:driver
          van:driver
            van0:man
        people:man
          van0:man
        people:woman
          old:lady
      people:kid
      pet:owner
        animal:lover
        cat:owner
          old:lady
        dog:owner
      people:pet
      people:tiger
      people:vegetarian
        people:cow
        people:giraffe
        people:sheep
  people:bone
  people:brain
  people:company
    bus:company
    haulage:company
  people:female
    people:woman
      old:lady
  haulage:worker
    truck:driver
  people:leaf
  people:male
  people:man
```

```
van0:man
people:plant
  people:grass
  people:tree
people:publication
  people:magazine
  people:newspaper
    people:broadsheet
    quality:broadsheet
  people:tabloid
    red:top
people:vehicle
  people:bicycle
  people:bus
  people:car
  people:lorry
  people:truck
  people:van
white:thing
people:young
  people:kid
mad:cow = owl:Nothing
```

pellet.owldl.com/owlsight/ - strona nie jest osiągalna !

4. Forward-chaining vs. Backward-chaining Inference

5. Semantic Web Rule Languages

- a. Propose an application that would use this or similar set of rules. Describe the system in a few sentences.**

Może to być na przykład portal zrzeszający rowerzystów, pomiędzy którymi występują pewne powiązania (upodobania tras, możliwości fizyczne). Reguły takie wtedy były by przydatne do wyszukiwania rowerzystów do wspólnych wypadów.

6. Mapping ontologies with SWRL Rules

- a. Save the file and put it in the report archive.**

semweb2012_lab5_krol_potepa_06.sng