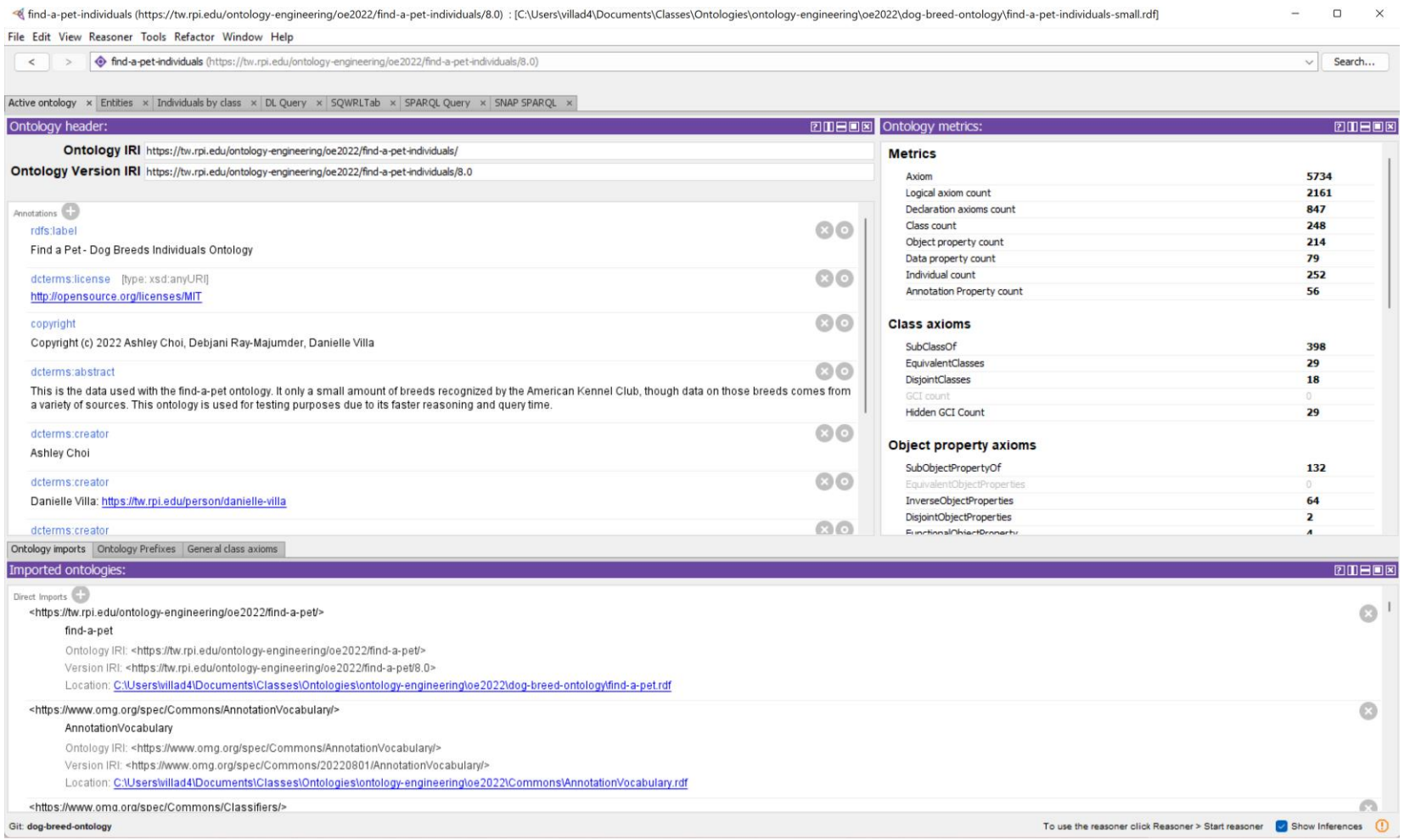
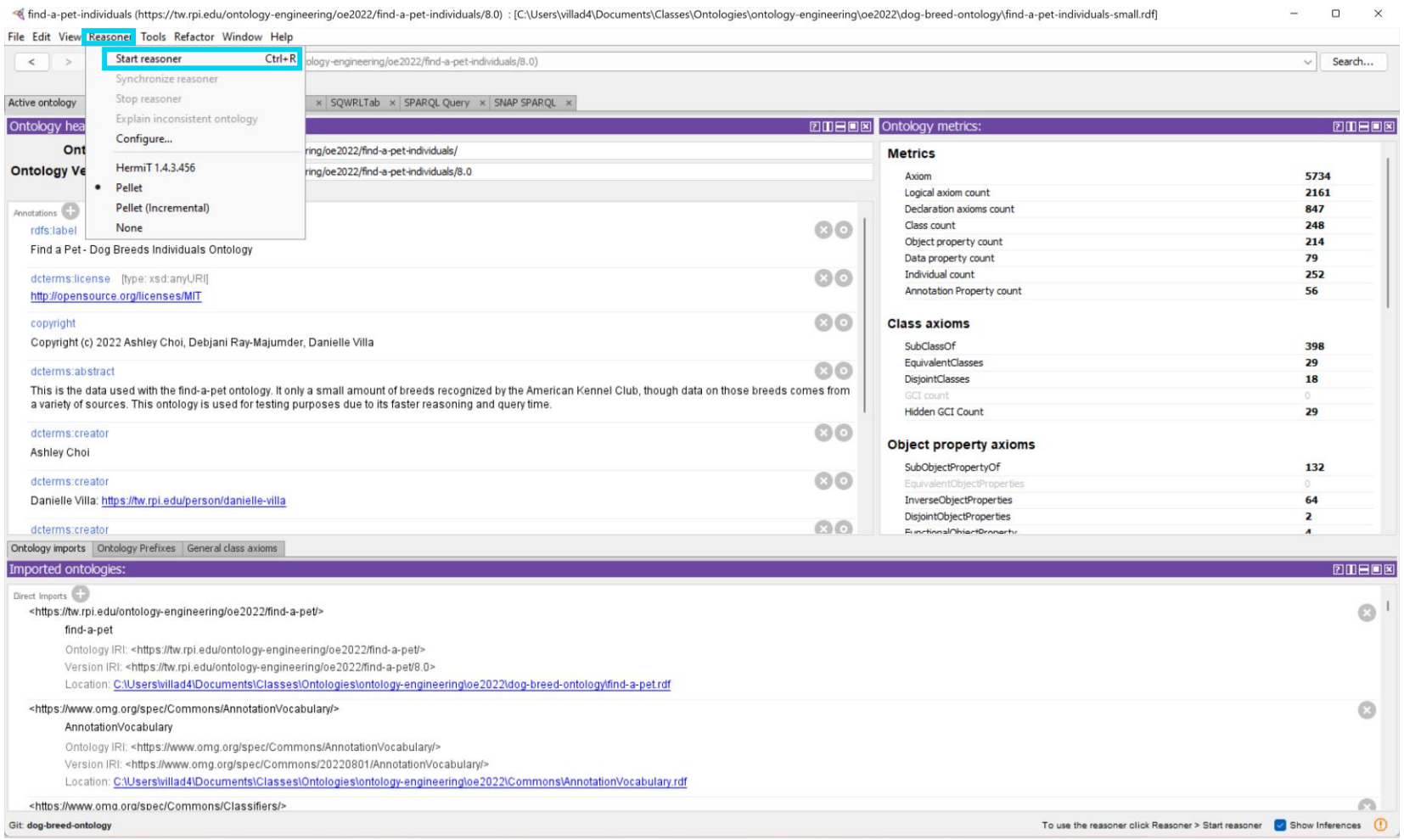
Load Ontology



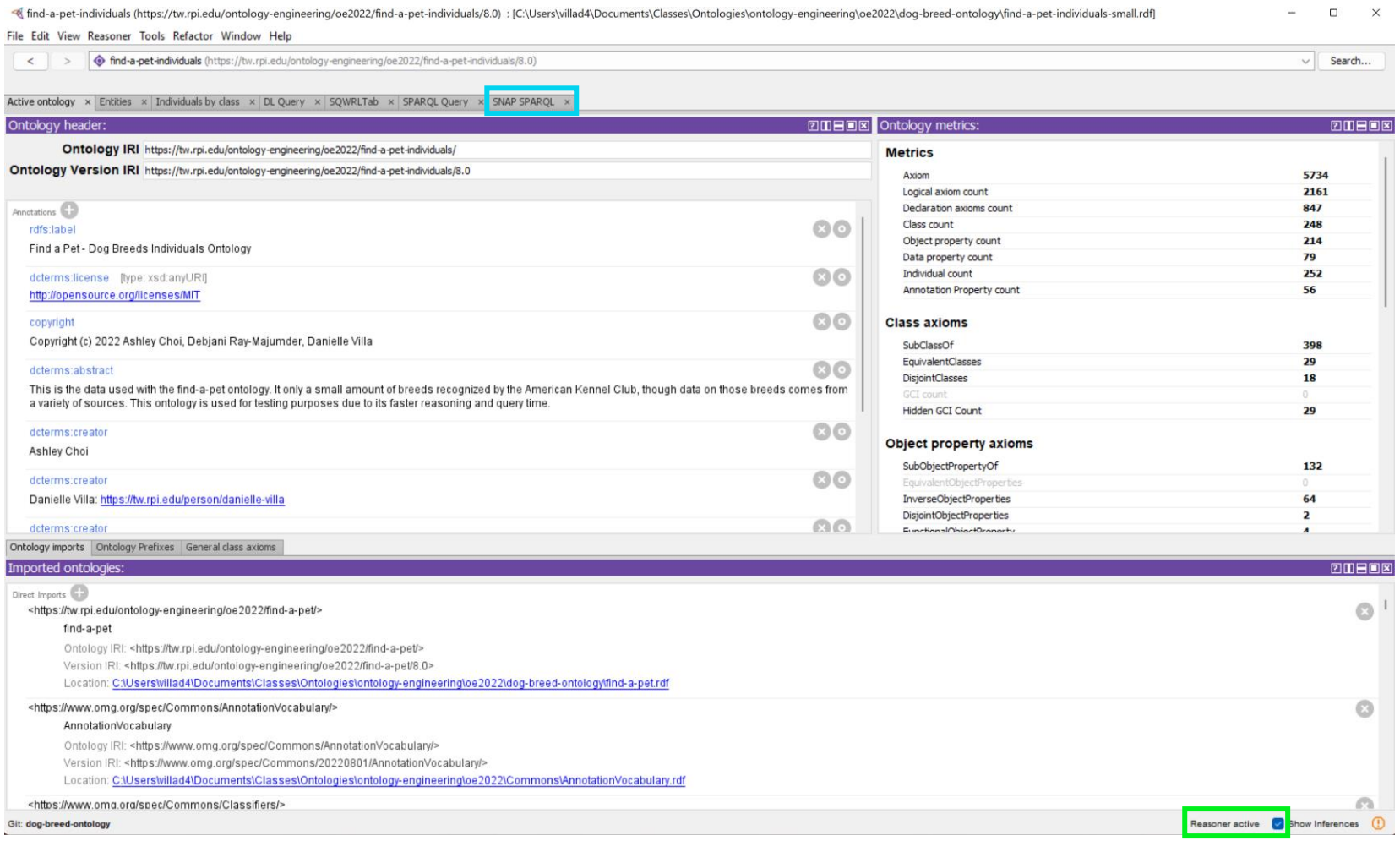
Load the small individuals ontology into your triple store of choice (as long as it can use SNAP SPARQL), we use Protégé

Run Reasoner



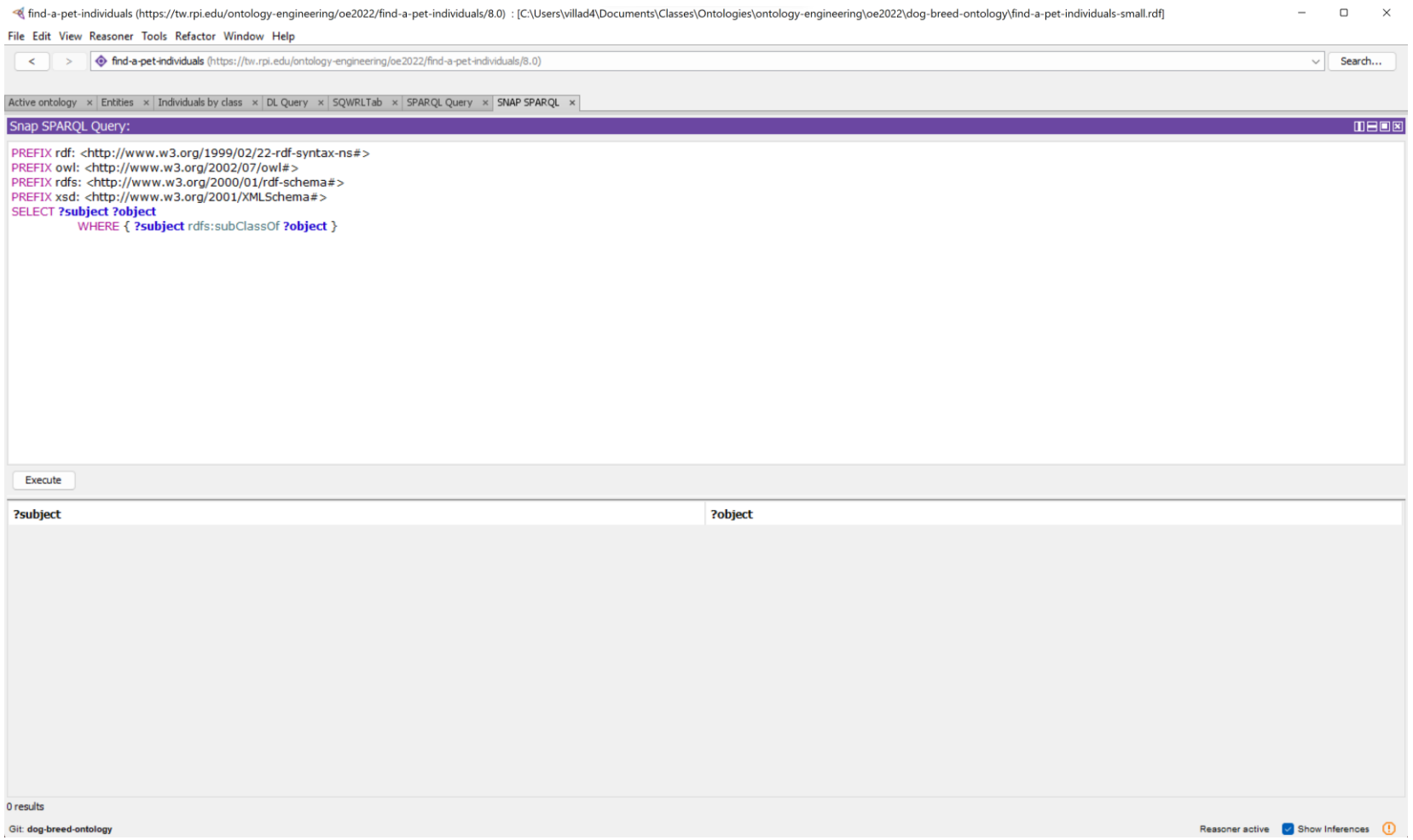
Run your reasoner of choice over the ontology. We used Pellet and it took ~20 min.

Use SNAP SPARQL

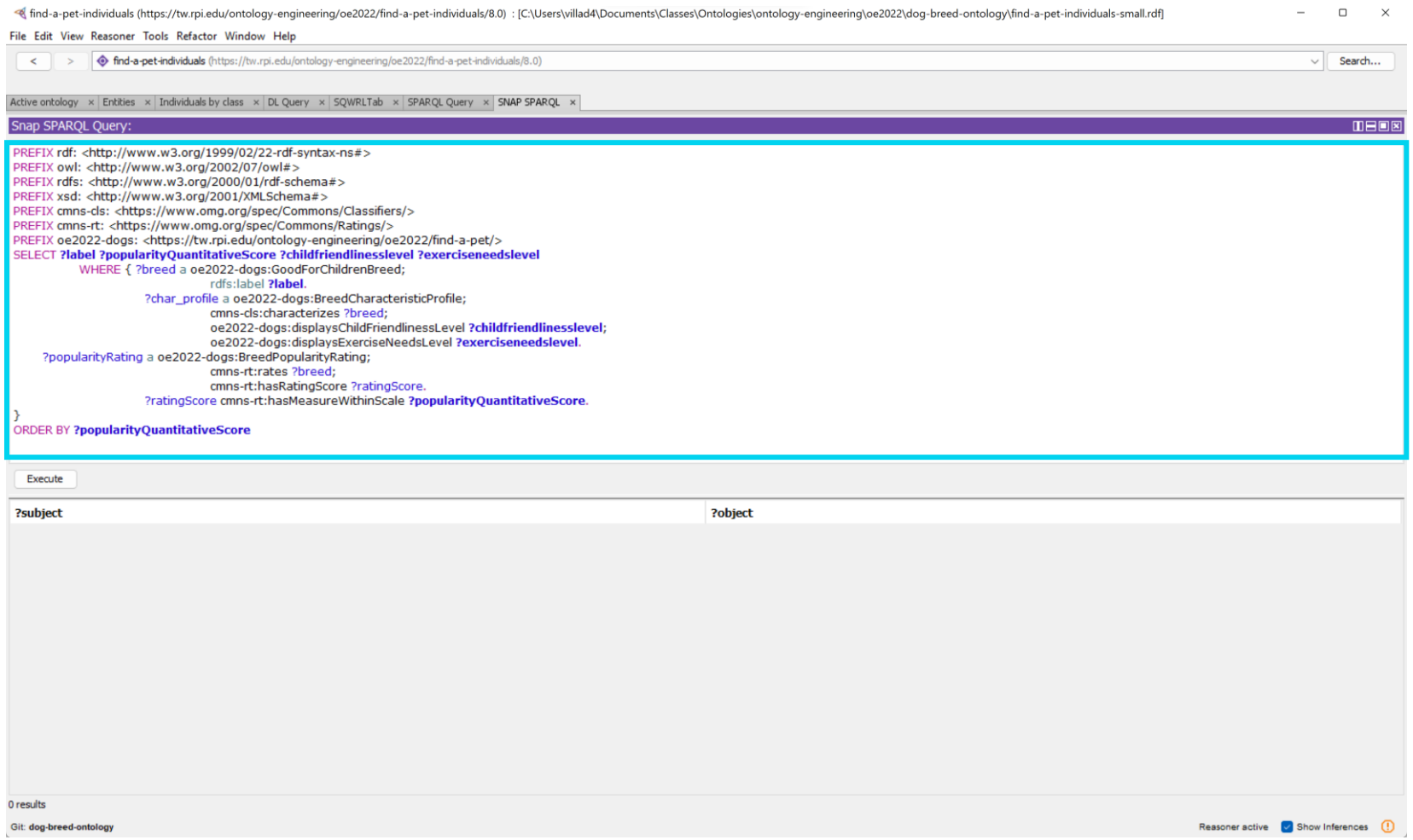


Open SNAP SPARQL

Use SNAP SPARQL

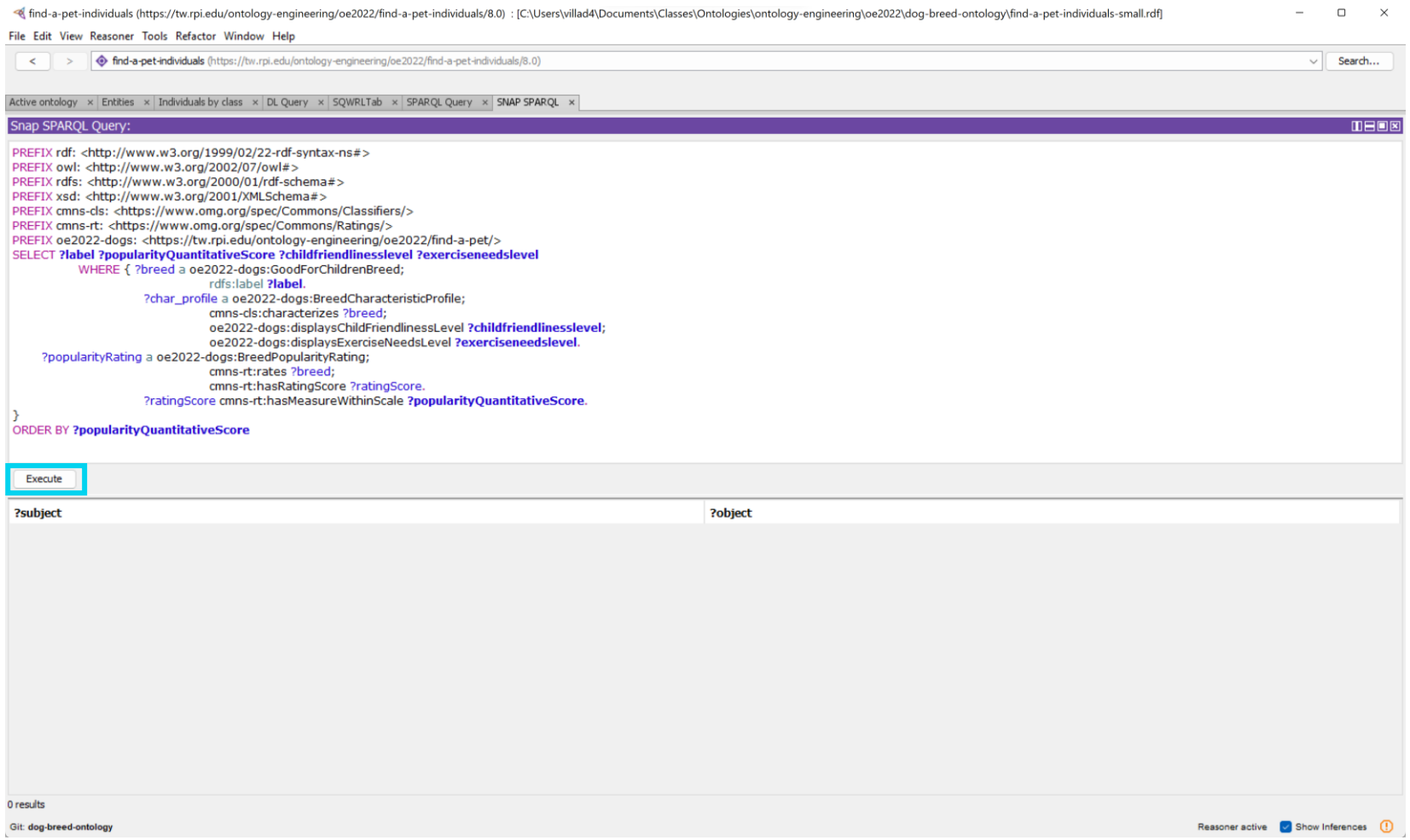


Query 1

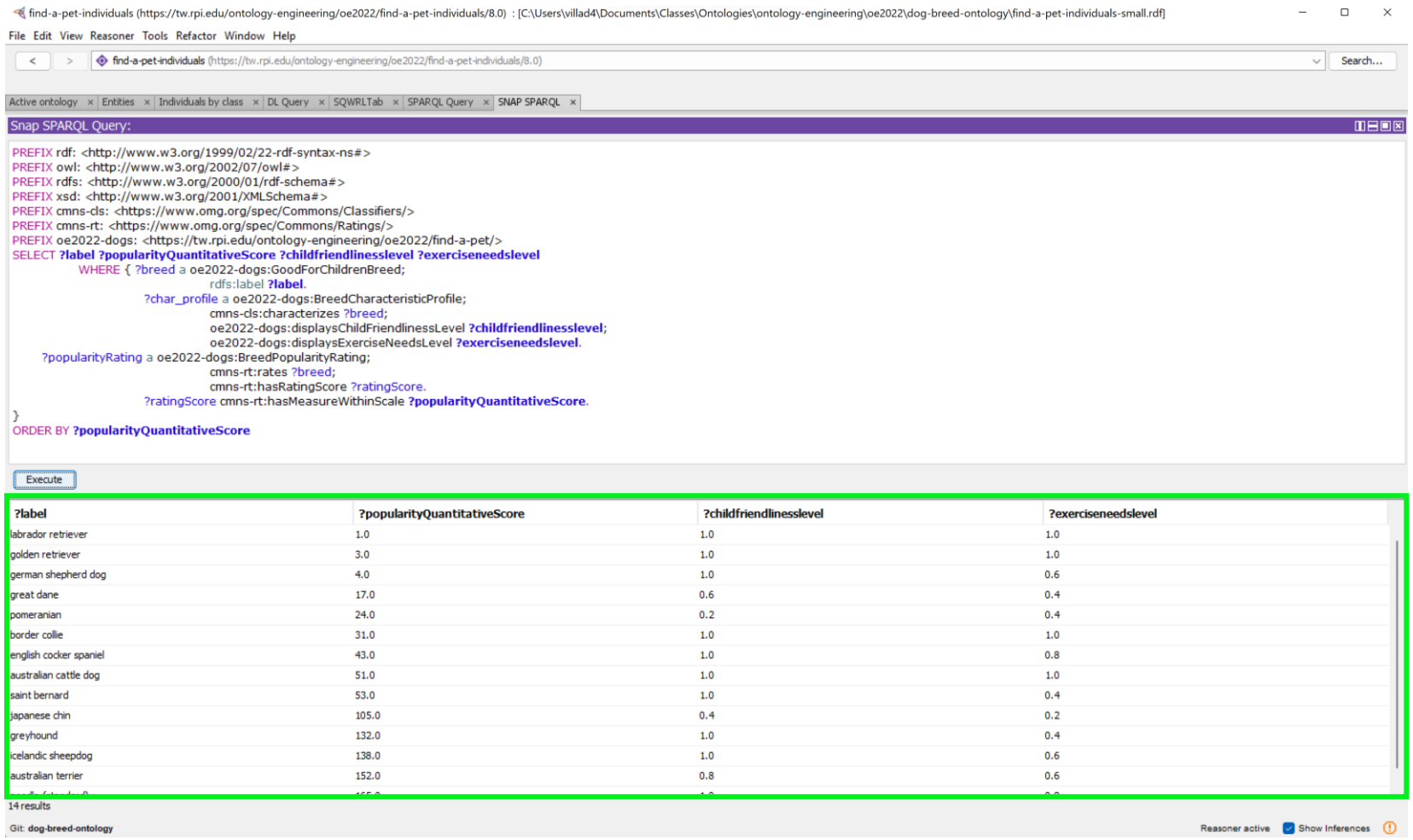


Enter the first query

Execute

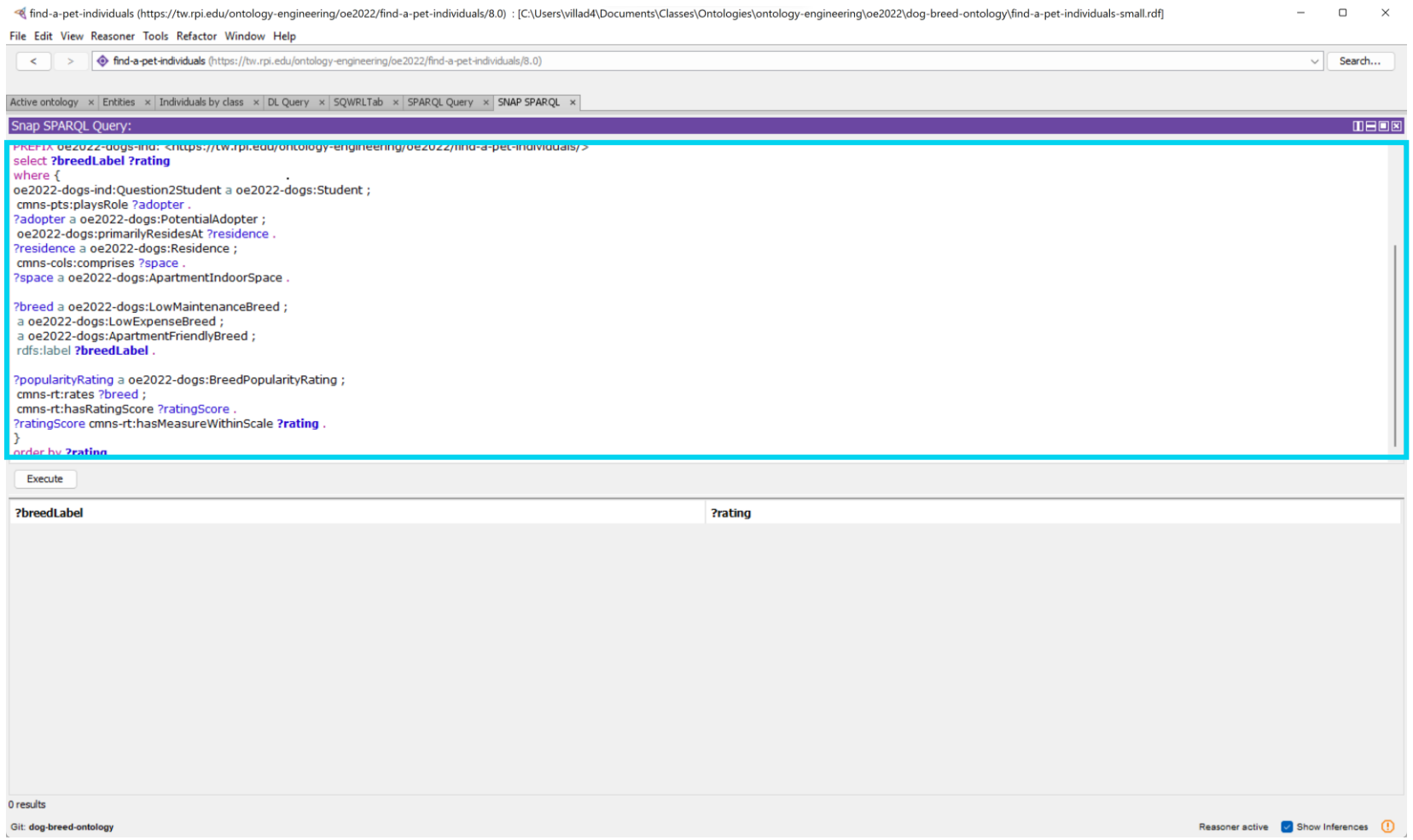

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX cmns-cls: <https://www.omg.org/spec/Commons/Classifiers/>
PREFIX cmns-rt: <https://www.omg.org/spec/Commons/Ratings/>
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
SELECT ?label ?popularityQuantitativeScore ?childfriendlinesslevel ?exerciseneedslevel
WHERE { ?breed a oe2022-dogs:GoodForChildrenBreed;
rdfs:label ?label.
?char_profile a oe2022-dogs:BreedCharacteristicProfile;
cmns-cls:characterizes ?breed;
oe2022-dogs:displaysChildFriendlinessLevel ?childfriendlinesslevel;
oe2022-dogs:displaysExerciseNeedsLevel ?exerciseneedslevel.
?popularityRating a oe2022-dogs:BreedPopularityRating;
cmns-rt:rates ?breed;
cmns-rt:hasRatingScore ?ratingScore.
?ratingScore cmns-rt:hasMeasureWithinScale ?popularityQuantitativeScore.
}
ORDER BY ?popularityQuantitativeScore
Execute
?subject
?object
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



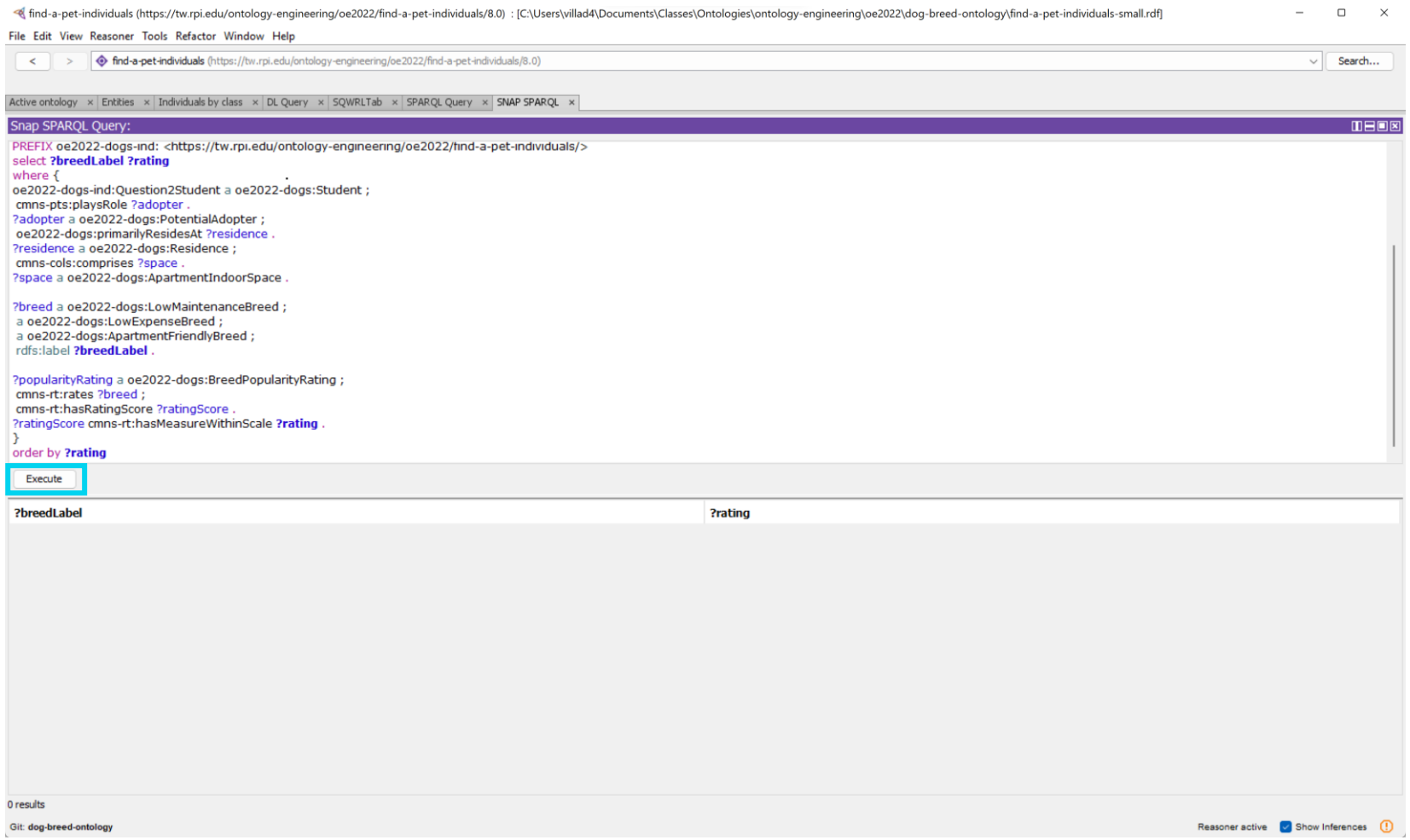
Shown are the expected results

Query 2

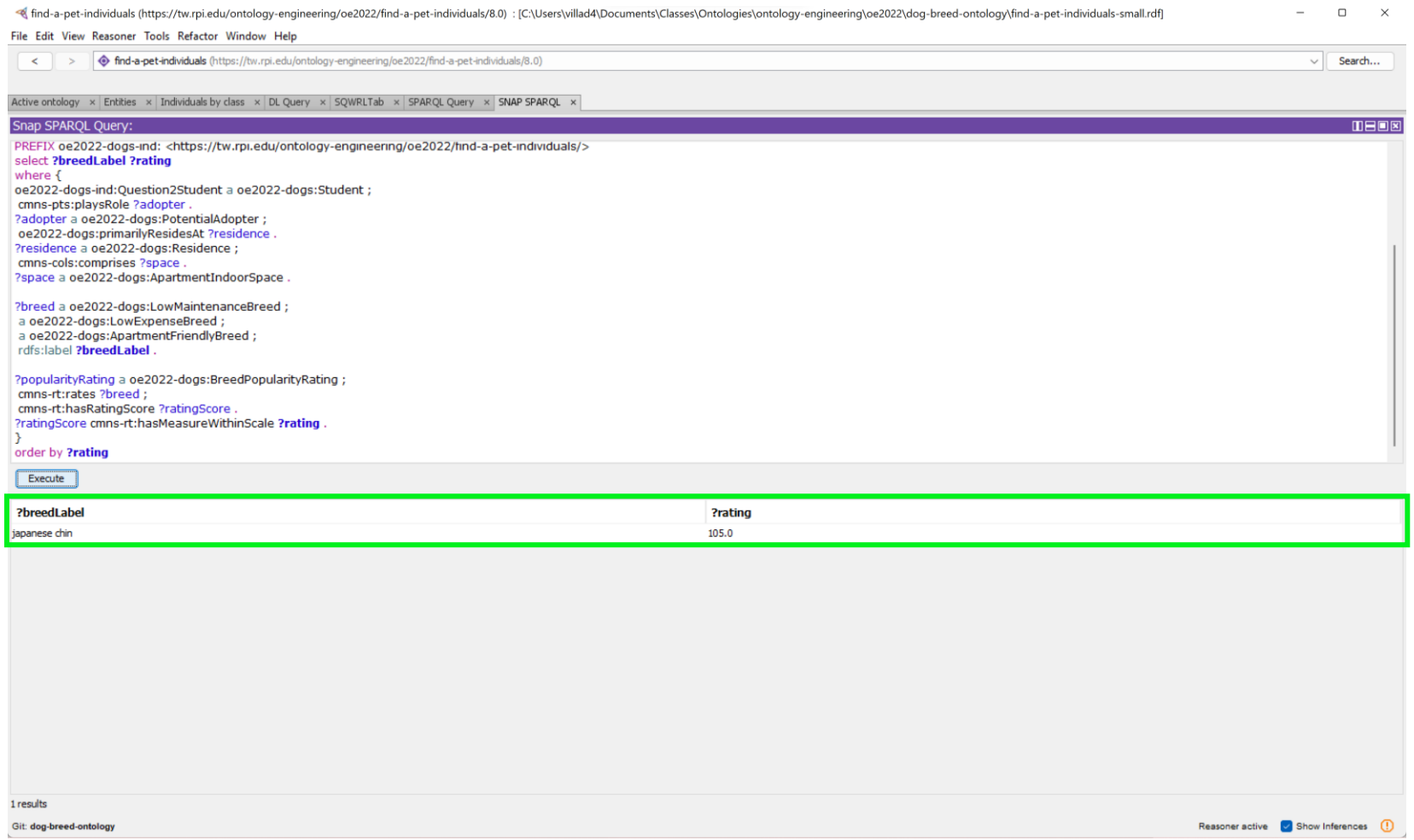


Enter the second query

Execute

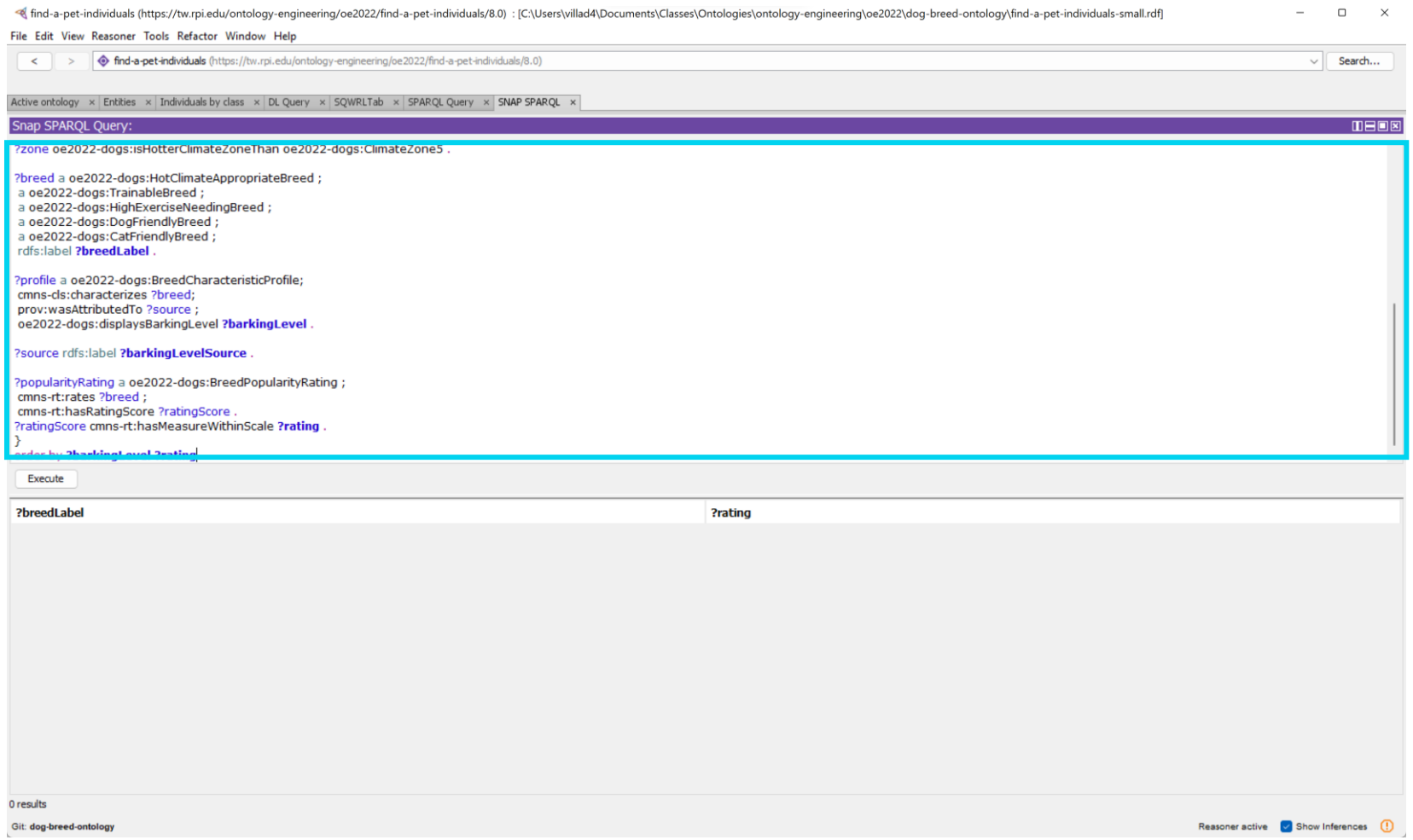

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX oe2022-dogs-ind: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/>
select ?breedLabel ?rating
where {
oe2022-dogs-ind:Question2Student a oe2022-dogs:Student ;
cmns-pts:playsRole ?adopter .
?adopter a oe2022-dogs:PotentialAdopter ;
oe2022-dogs:primarilyResidesAt ?residence .
?residence a oe2022-dogs:Residence ;
cmns-cols:comprises ?space .
?space a oe2022-dogs:ApartmentIndoorSpace .
?breed a oe2022-dogs:LowMaintenanceBreed ;
a oe2022-dogs:LowExpenseBreed ;
a oe2022-dogs:ApartmentFriendlyBreed ;
rdfs:label ?breedLabel .
?popularityRating a oe2022-dogs:BreedPopularityRating ;
cmns-rt:rates ?breed ;
cmns-rt:hasRatingScore ?ratingScore .
?ratingScore cmns-rt:hasMeasureWithinScale ?rating .
}
order by ?rating
Execute
?breedLabel
?rating
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



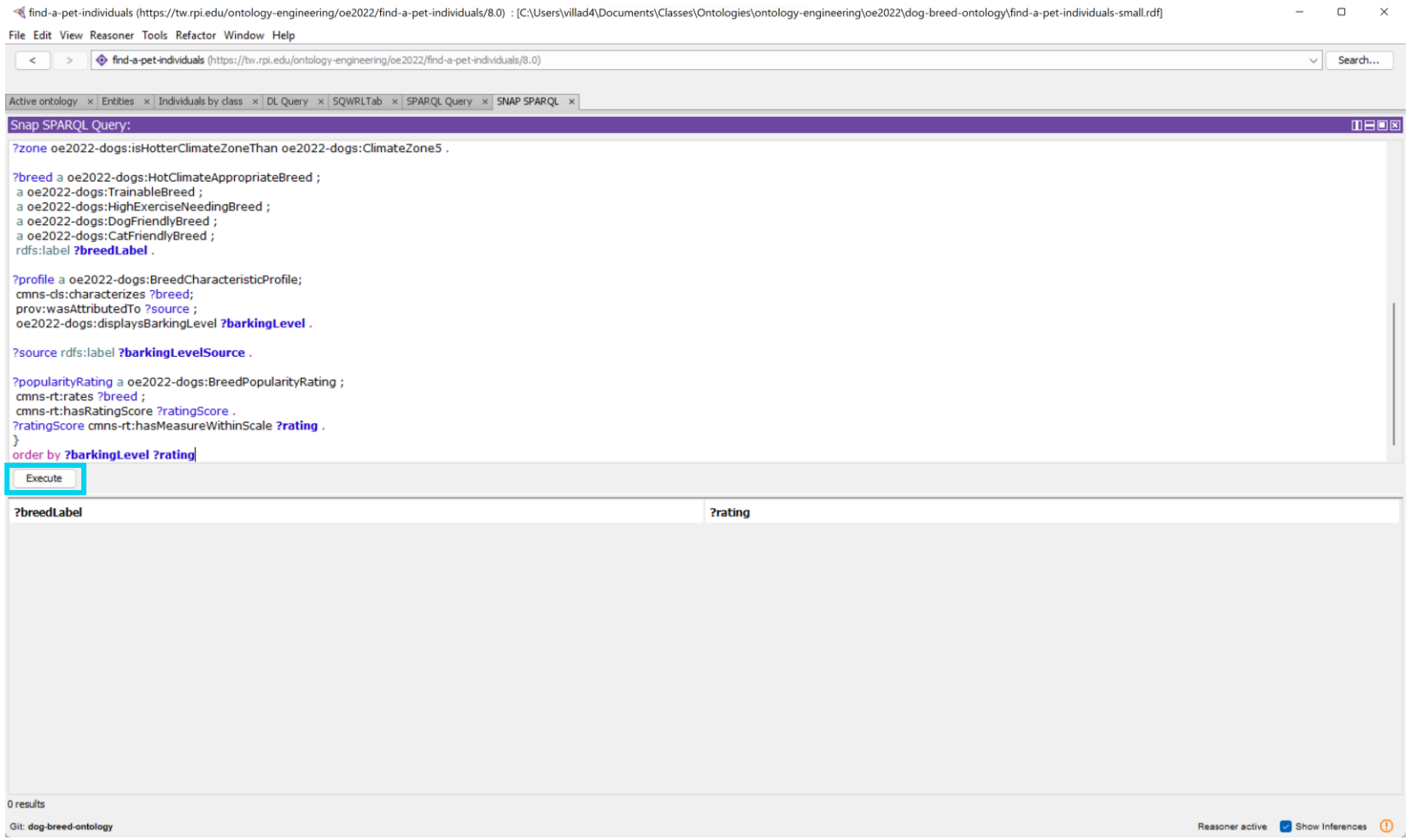
Shown are the expected results

Query 3

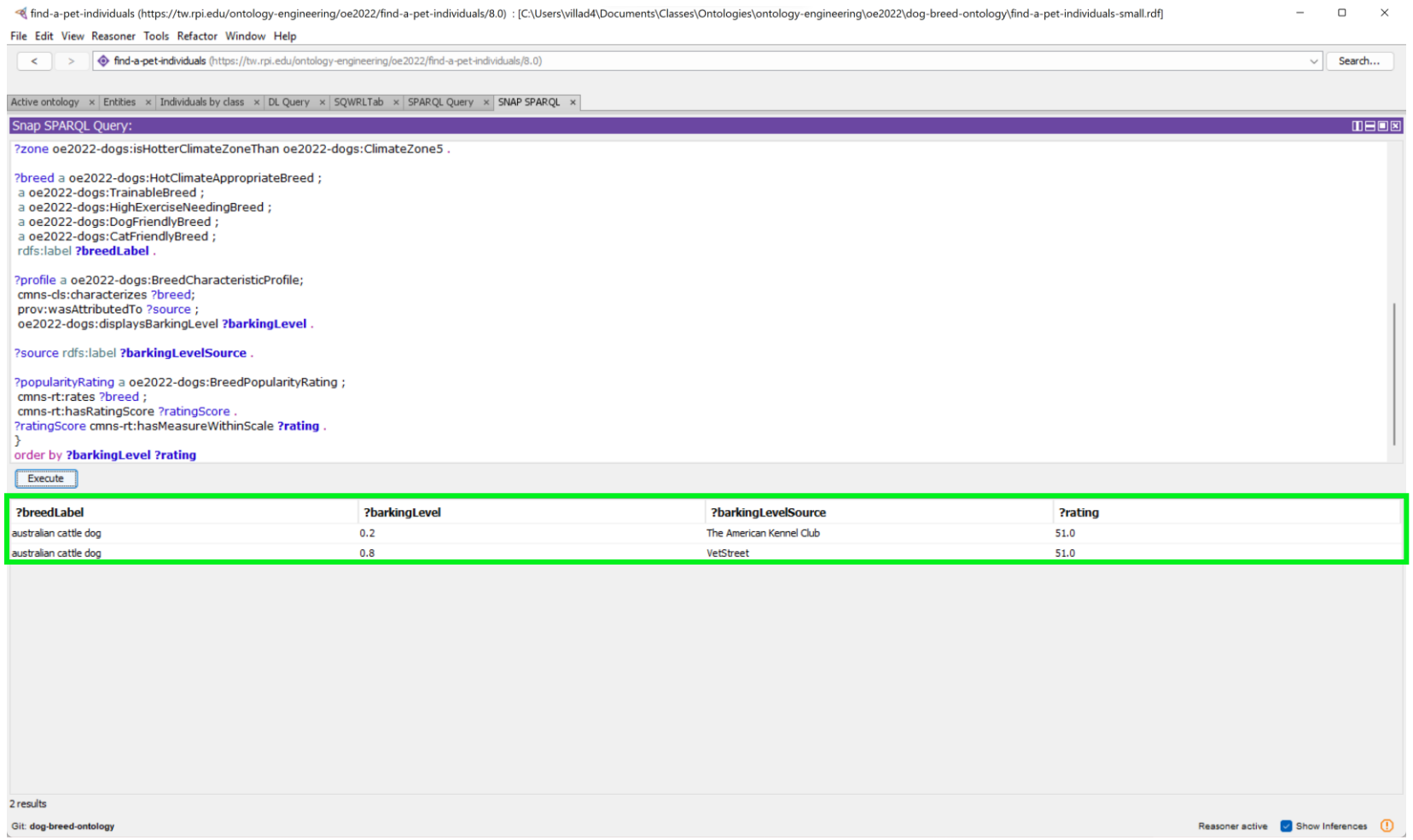


Enter the third query

Execute

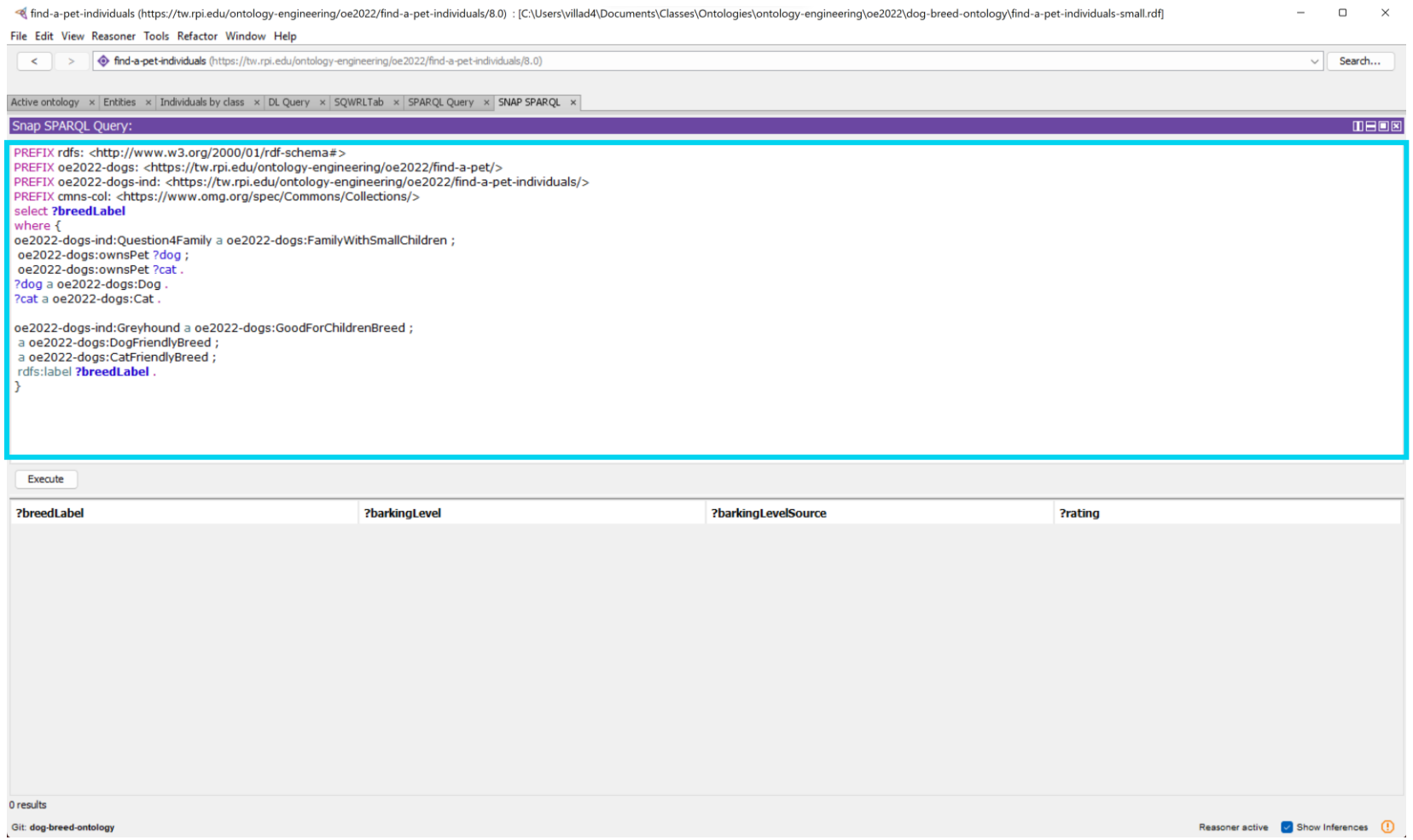

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
?zone oe2022-dogs:isHotterClimateZoneThan oe2022-dogs:ClimateZone5 .
?breed a oe2022-dogs:HotClimateAppropriateBreed ;
a oe2022-dogs:TrainableBreed ;
a oe2022-dogs:HighExerciseNeedingBreed ;
a oe2022-dogs:DogFriendlyBreed ;
a oe2022-dogs:CatFriendlyBreed ;
rdfs:label ?breedLabel .
?profile a oe2022-dogs:BreedCharacteristicProfile;
cmns-cls:characterizes ?breed;
prov:wasAttributedTo ?source ;
oe2022-dogs:displaysBarkingLevel ?barkingLevel .
?source rdfs:label ?barkingLevelSource .
?popularityRating a oe2022-dogs:BreedPopularityRating ;
cmns-rt:rates ?breed ;
cmns-rt:hasRatingScore ?ratingScore .
?ratingScore cmns-rt:hasMeasureWithinScale ?rating .
}
order by ?barkingLevel ?rating
Execute
?breedLabel
?rating
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



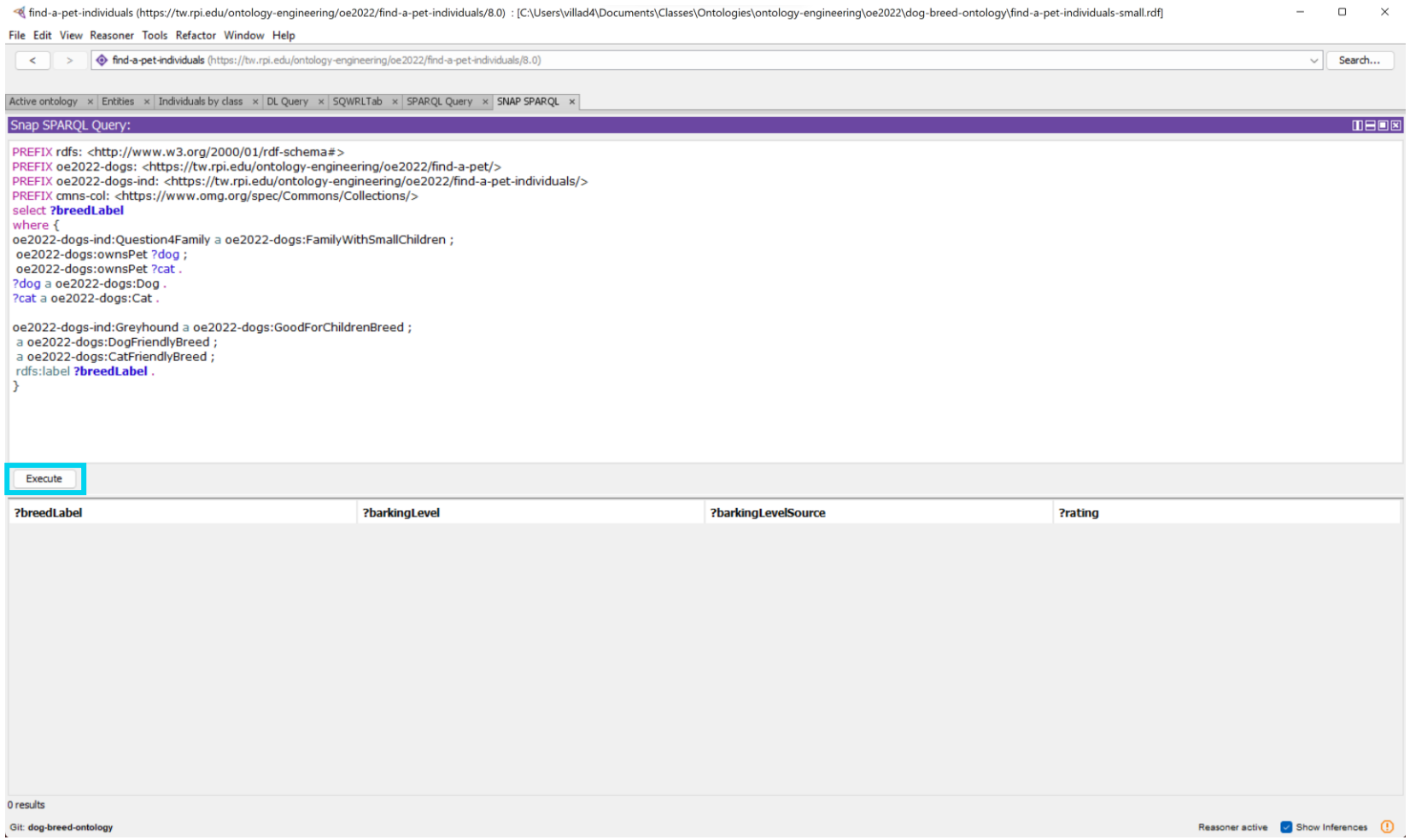
Shown are the expected results

Query 4

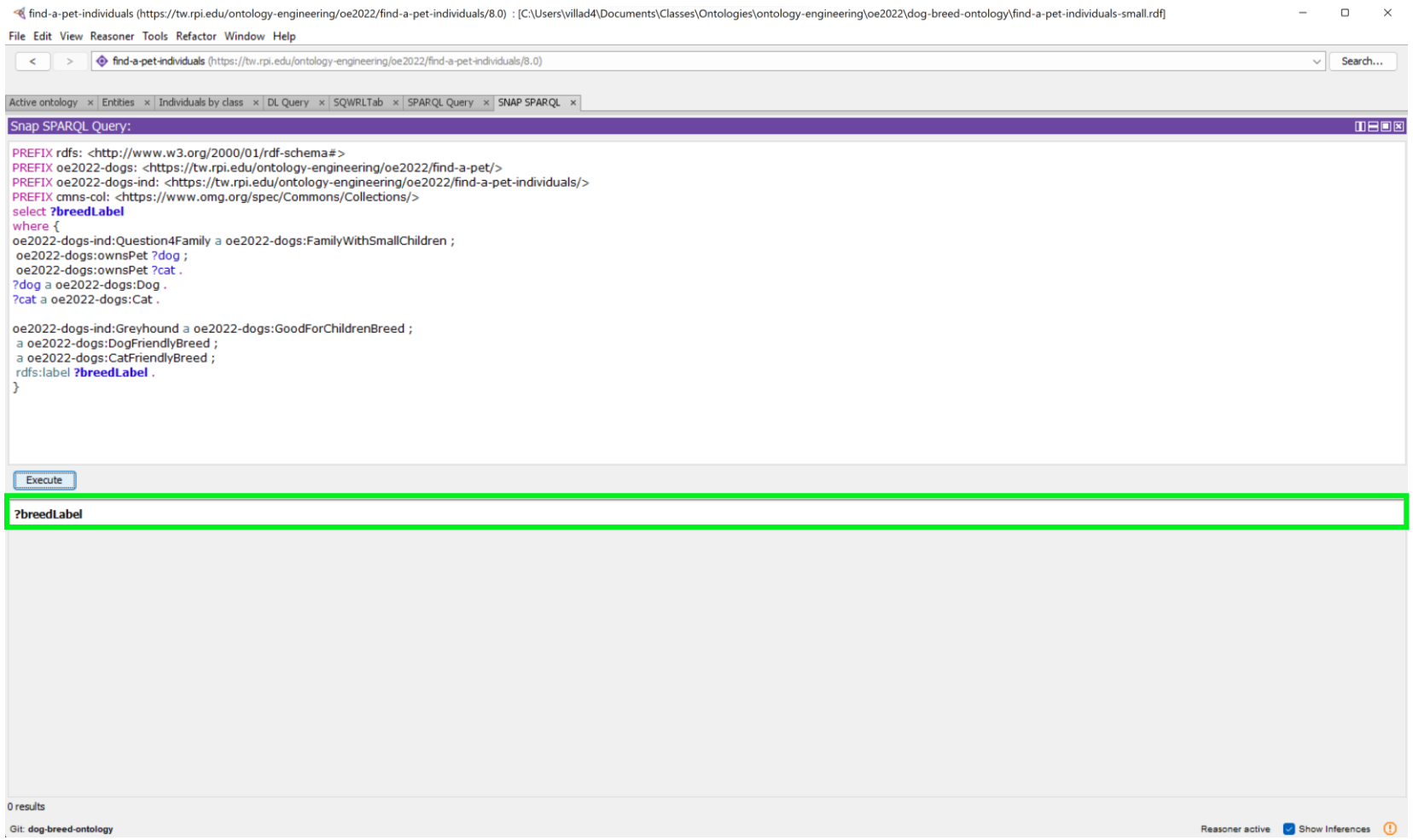


Enter the fourth query

Execute

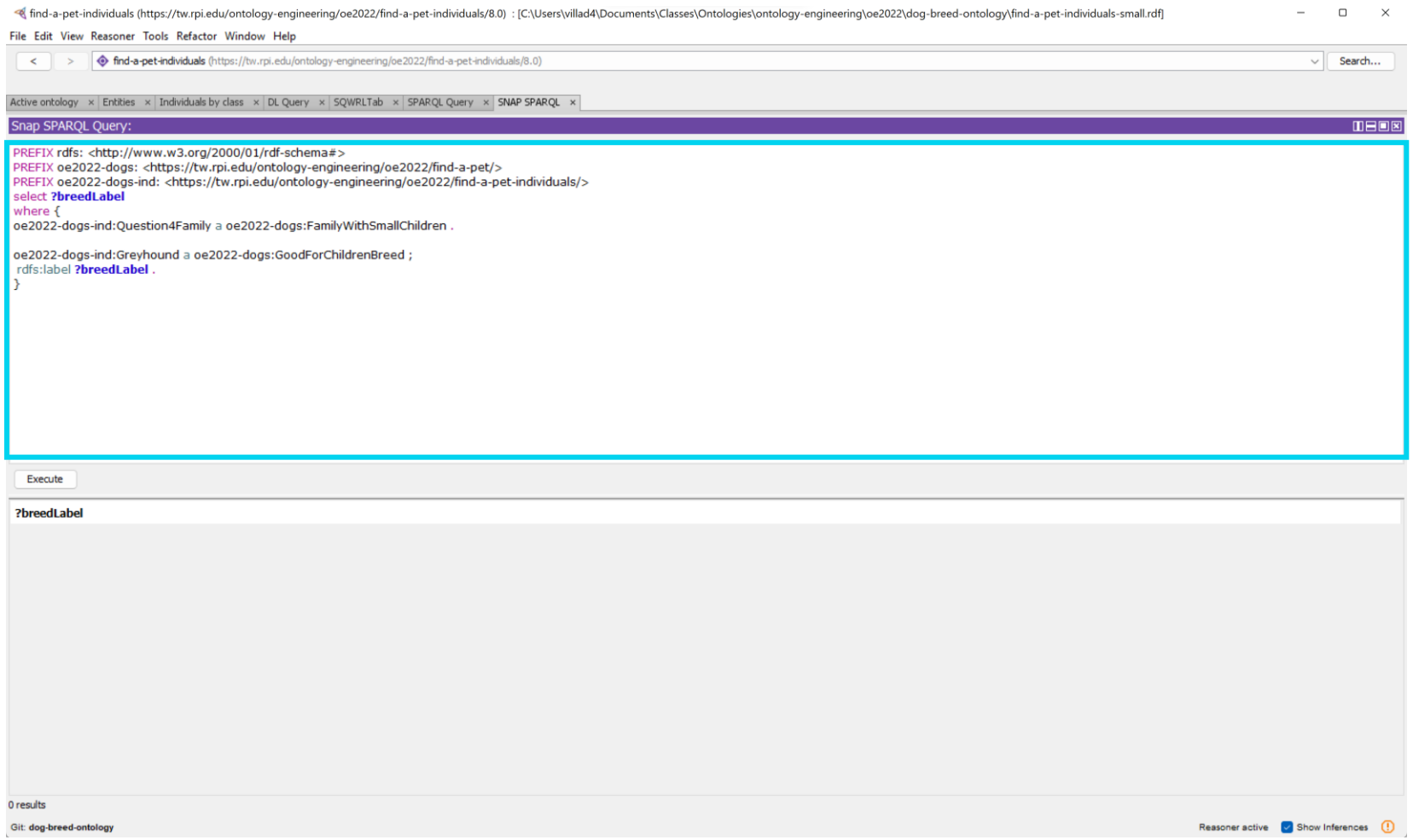

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
PREFIX oe2022-dogs-ind: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/>
PREFIX cmns-col: <https://www.omg.org/spec/Commons/Collections/>
select ?breedLabel
where {
oe2022-dogs-ind:Question4Family a oe2022-dogs:FamilyWithSmallChildren ;
oe2022-dogs:ownsPet ?dog ;
oe2022-dogs:ownsPet ?cat .
?dog a oe2022-dogs:Dog .
?cat a oe2022-dogs:Cat .
oe2022-dogs-ind:Greyhound a oe2022-dogs:GoodForChildrenBreed ;
a oe2022-dogs:DogFriendlyBreed ;
a oe2022-dogs:CatFriendlyBreed ;
rdfs:label ?breedLabel .
}
Execute
?breedLabel
?barkingLevel
?barkingLevelSource
?rating
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



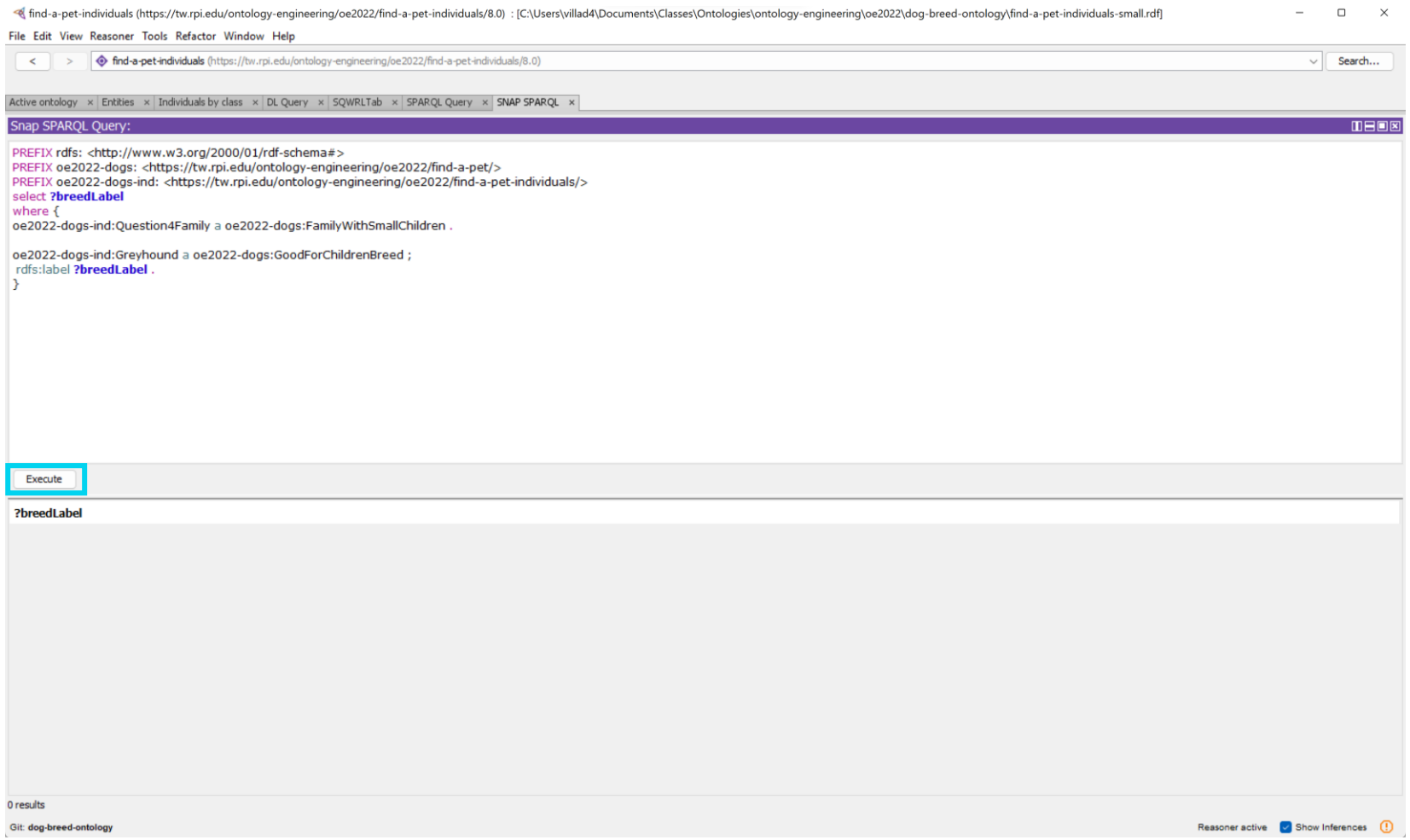
Shown are the expected results, since a greyhound is not a good fit nothing is returned

Alternate Query 4.1

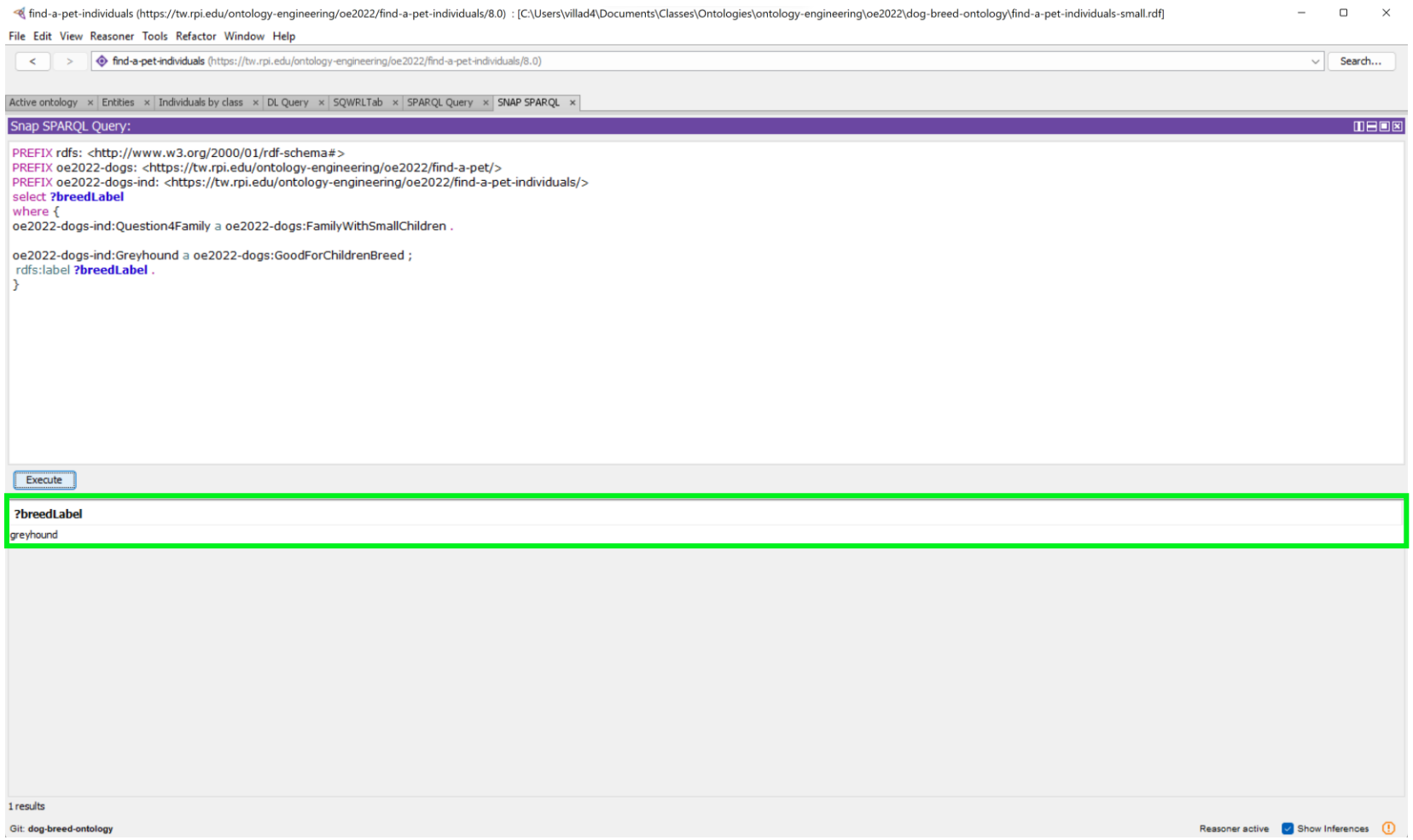


Enter the first part of the alternate to the fourth query

Execute

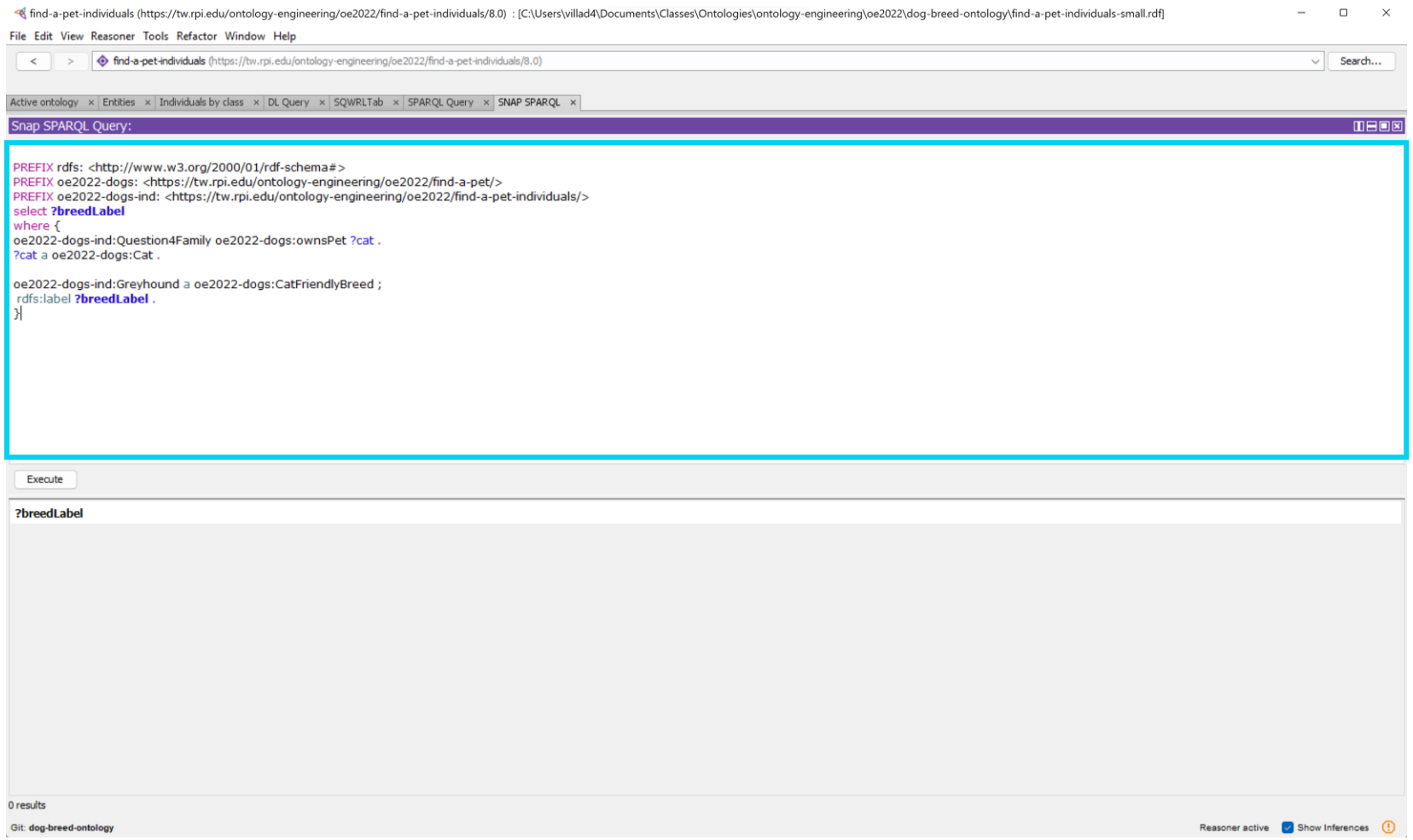

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
PREFIX oe2022-dogs-ind: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/>
select ?breedLabel
where {
oe2022-dogs-ind:Question4Family a oe2022-dogs:FamilyWithSmallChildren .
oe2022-dogs-ind:Greyhound a oe2022-dogs:GoodForChildrenBreed ;
rdfs:label ?breedLabel .
}
Execute
?breedLabel
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



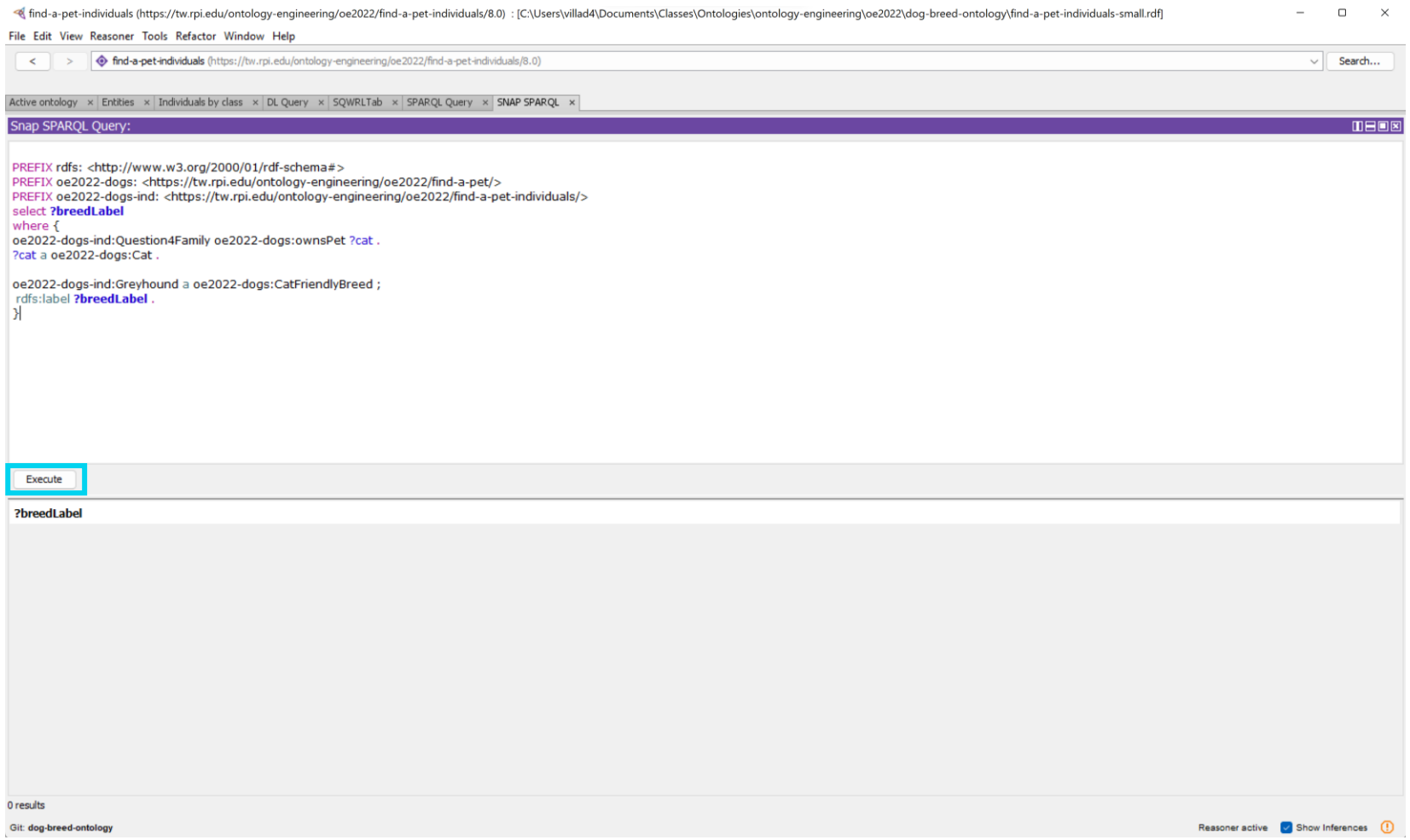
Shown are the expected results, since greyhound is a breed that is good for children

Alternate Query 4.2

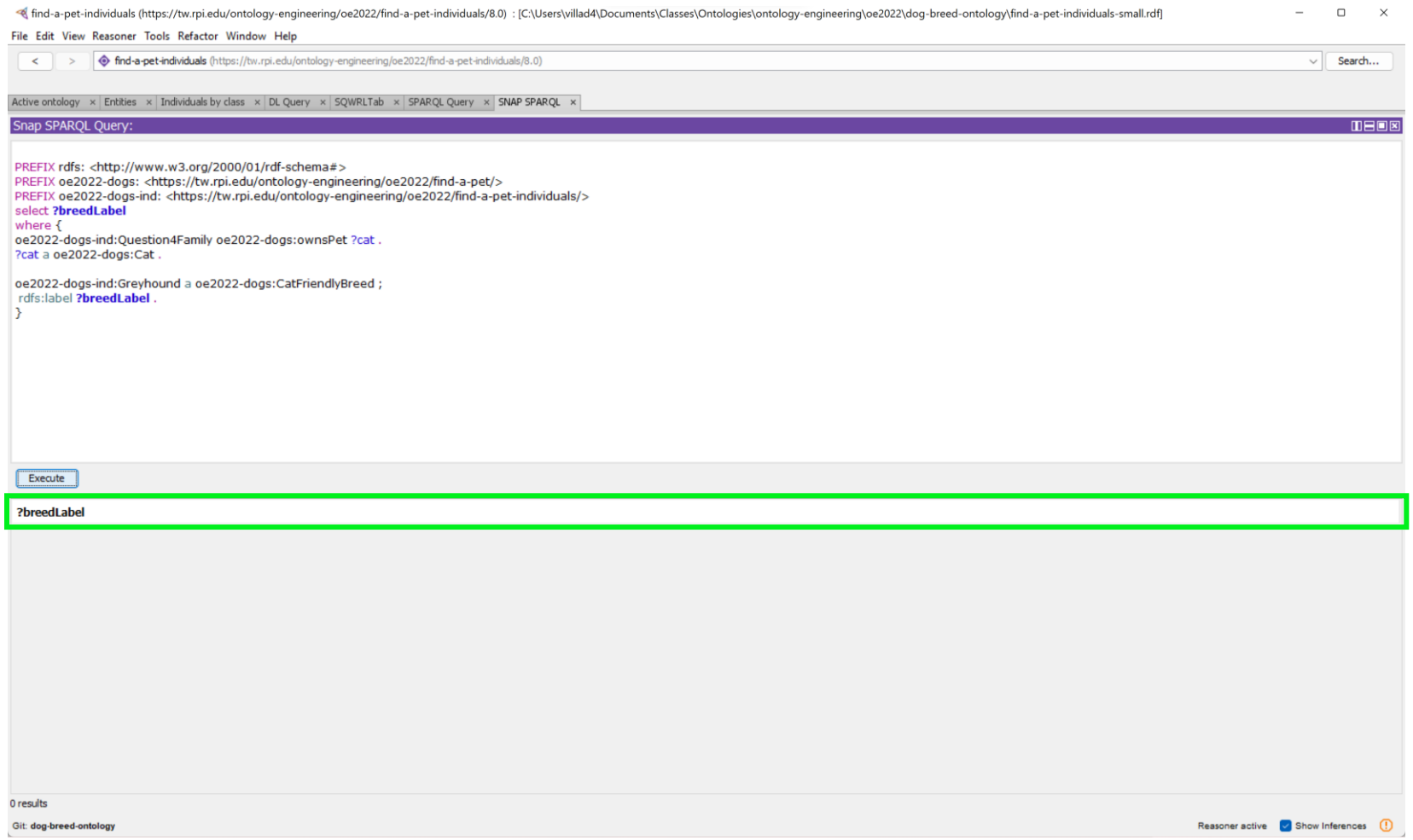


Enter the second part of the alternate to the fourth query

Execute

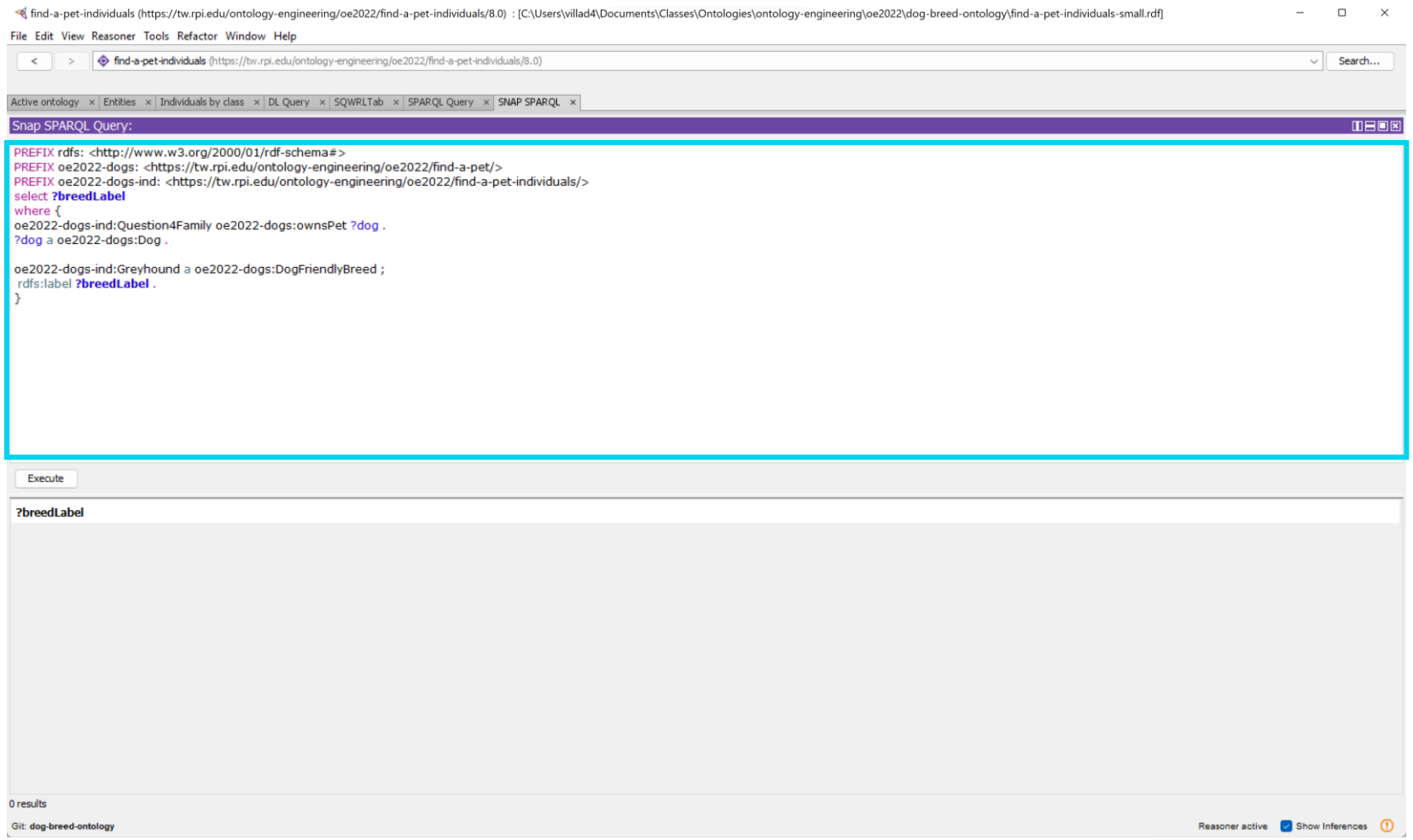

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
PREFIX oe2022-dogs-ind: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/>
select ?breedLabel
where {
oe2022-dogs-ind:Question4Family oe2022-dogs:ownsPet ?cat .
?cat a oe2022-dogs:Cat .
oe2022-dogs-ind:Greyhound a oe2022-dogs:CatFriendlyBreed ;
rdfs:label ?breedLabel .
}
Execute
?breedLabel
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



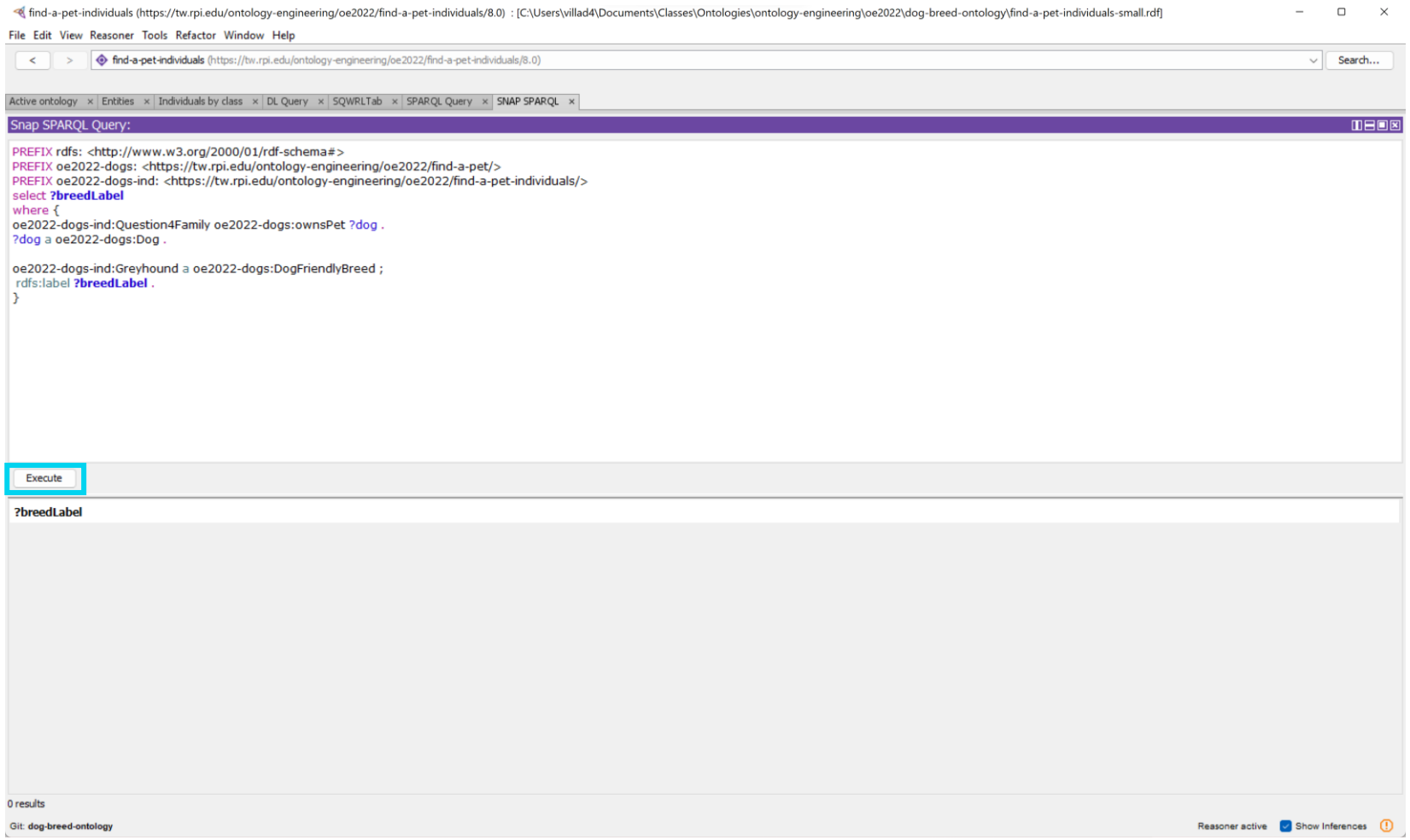
Shown are the expected results, since greyhound is not a cat friendly breed

Alternate Query 4.3

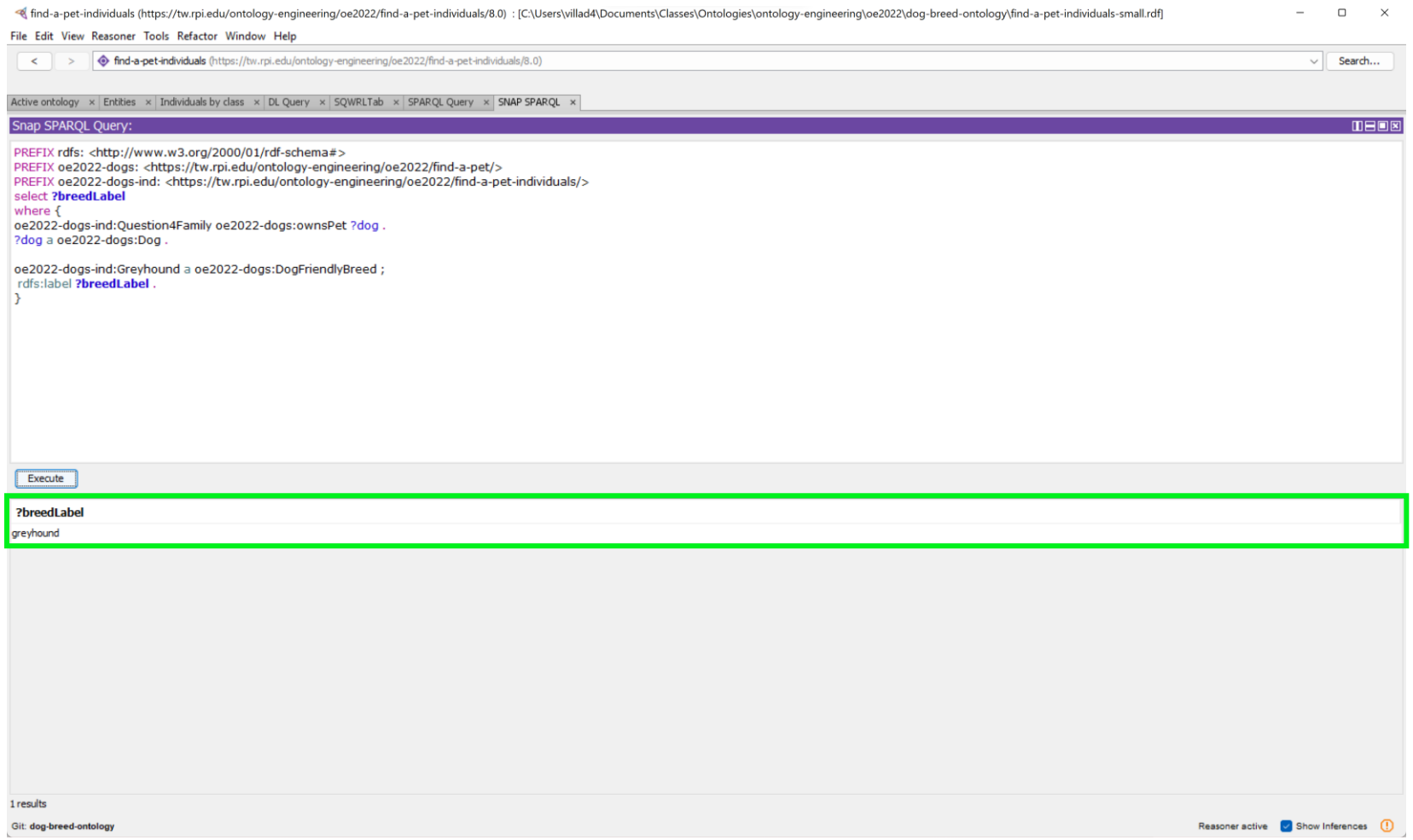


Enter the third part of the alternate to the fourth query

Execute

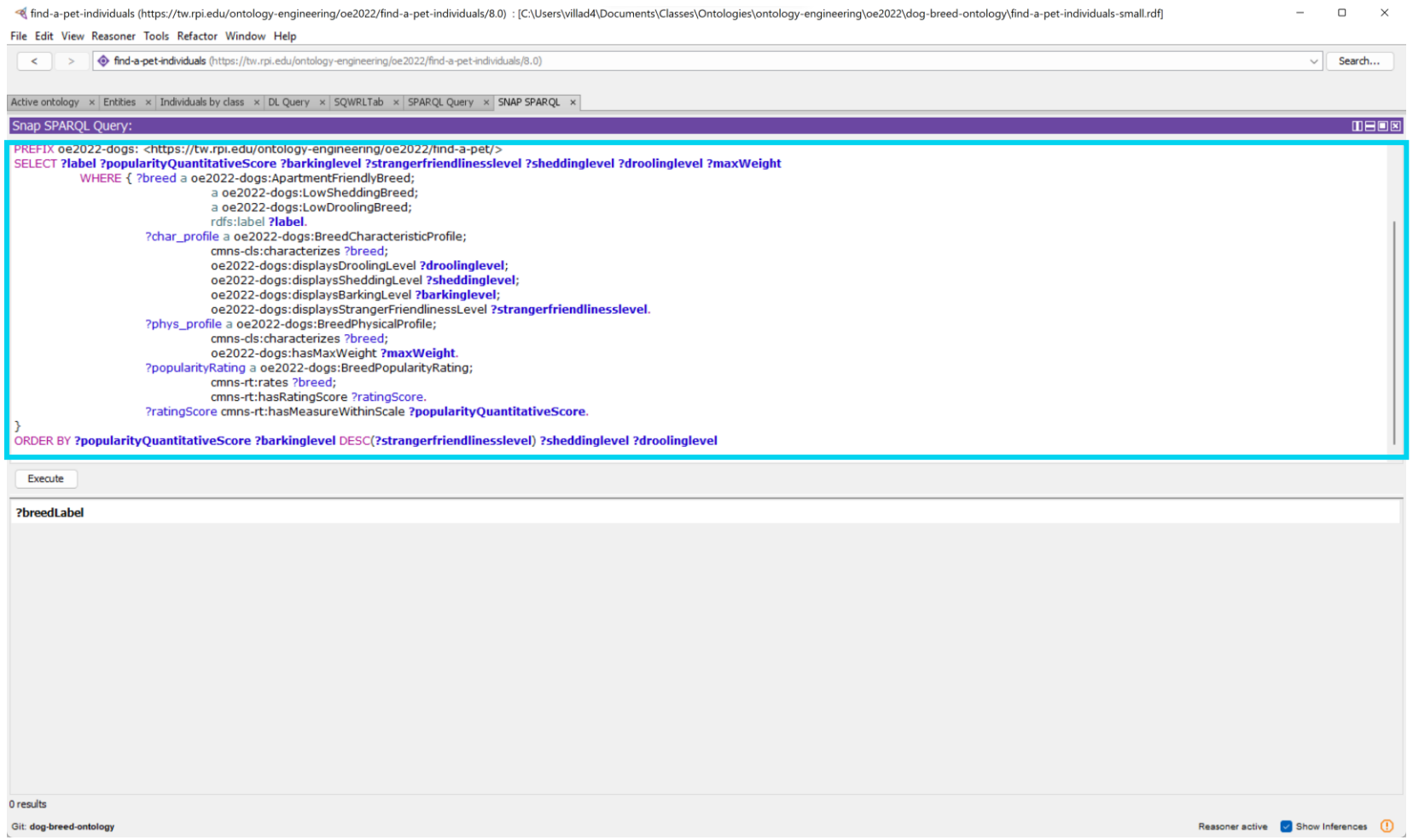

find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
PREFIX oe2022-dogs-ind: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/>
select ?breedLabel
where {
oe2022-dogs-ind:Question4Family oe2022-dogs:ownsPet ?dog .
?dog a oe2022-dogs:Dog .
oe2022-dogs-ind:Greyhound a oe2022-dogs:DogFriendlyBreed ;
rdfs:label ?breedLabel .
}
Execute
?breedLabel
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



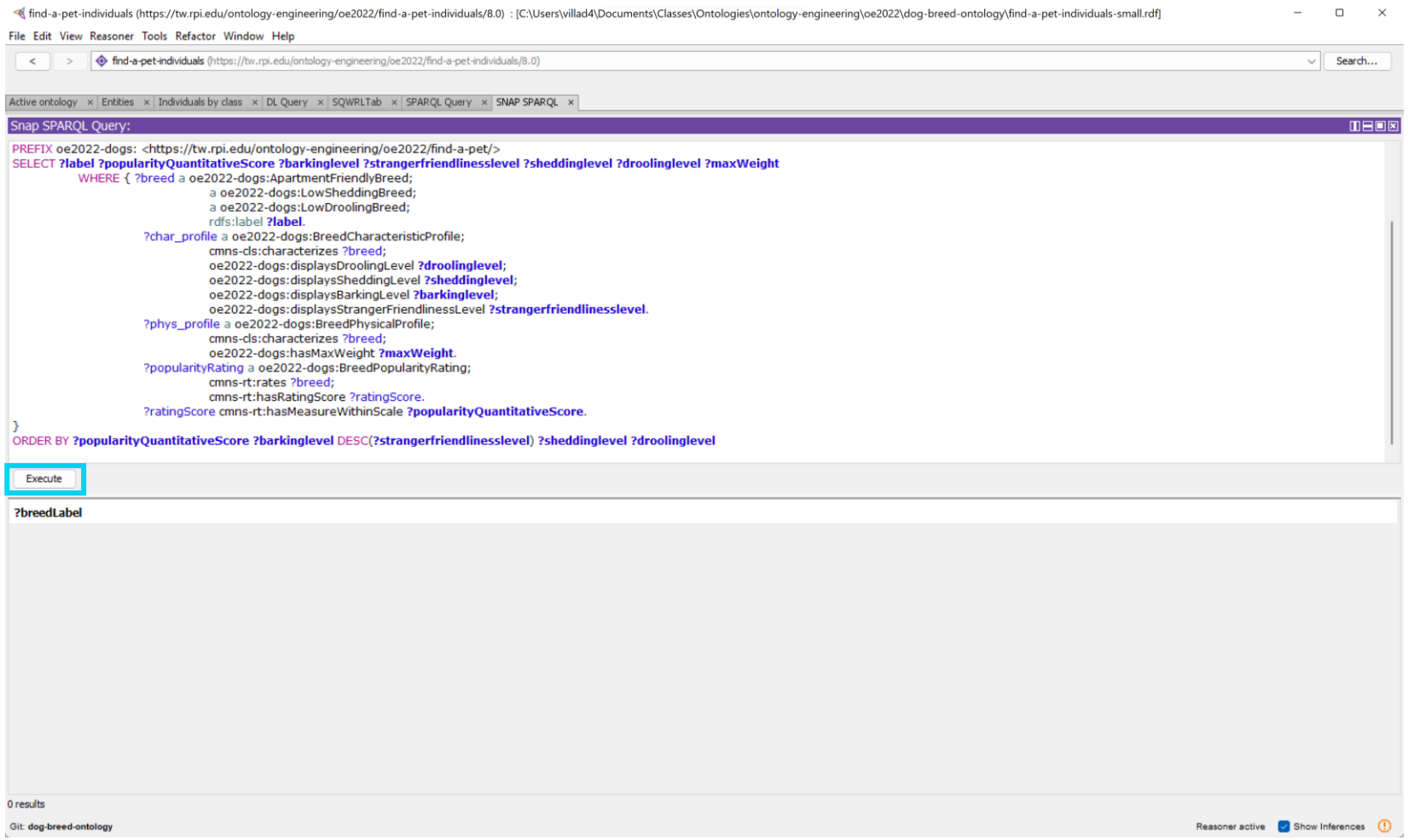
Shown are the expected results, since greyhound is a dog friendly breed

Query 5

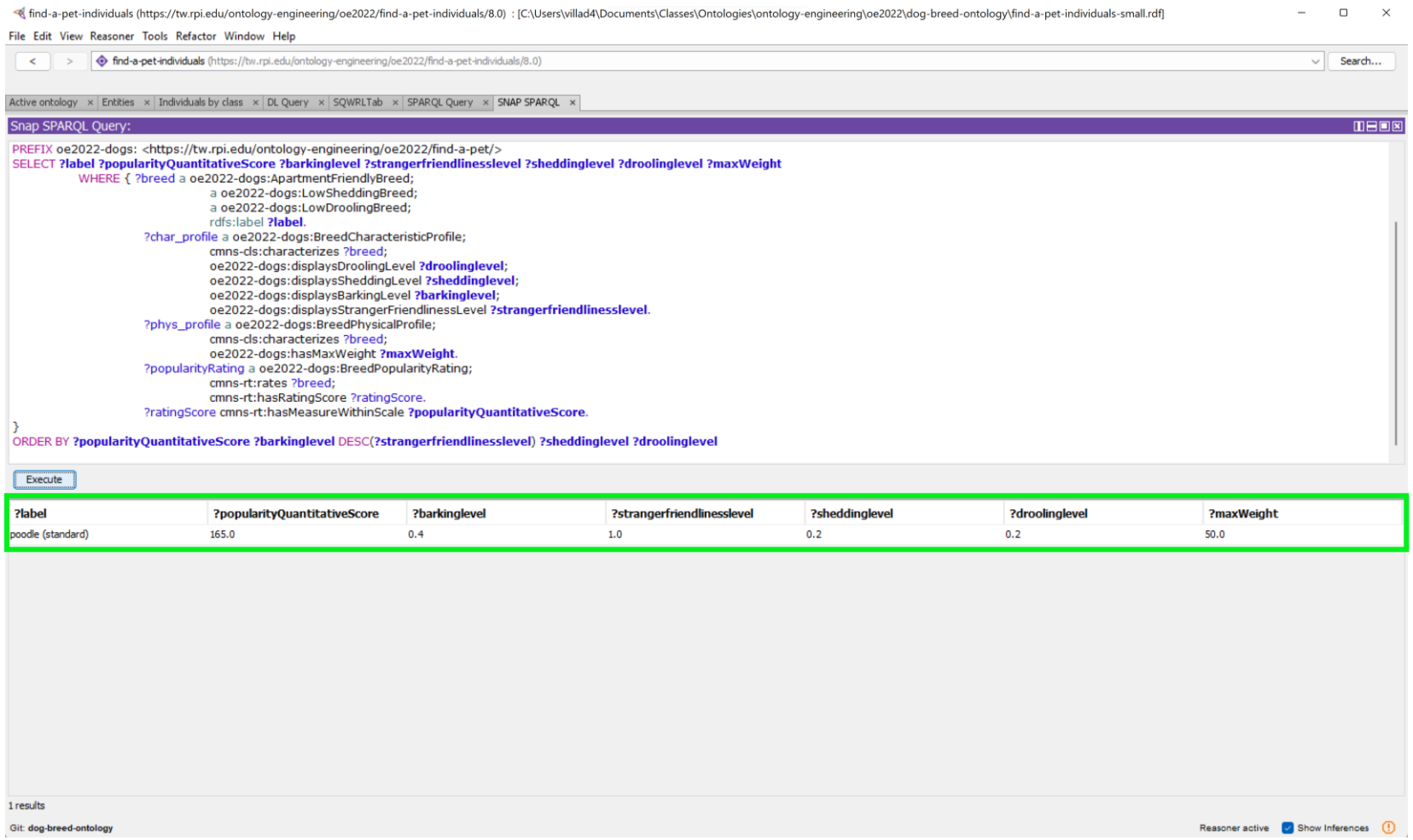


Enter the fifth query

Execute


find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0) : [C:\Users\villad4\Documents\Classes\Ontologies\ontology-engineering\oe2022\dog-breed-ontology\find-a-pet-individuals-small.rdf]
File Edit View Reasoner Tools Refactor Window Help
find-a-pet-individuals (https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet-individuals/8.0)
Search...
Active ontology
Entities
Individuals by class
DL Query
SQWRLTab
SPARQL Query
SNAP SPARQL
Snap SPARQL Query:
PREFIX oe2022-dogs: <https://tw.rpi.edu/ontology-engineering/oe2022/find-a-pet/>
SELECT ?label ?popularityQuantitativeScore ?barkinglevel ?strangerfriendlinesslevel ?sheddinglevel ?droolinglevel ?maxWeight
WHERE { ?breed a oe2022-dogs:ApartmentFriendlyBreed;
a oe2022-dogs:LowSheddingBreed;
a oe2022-dogs:LowDroolingBreed;
rdfs:label ?label.
?char_profile a oe2022-dogs:BreedCharacteristicProfile;
cmns-cls:characterizes ?breed;
oe2022-dogs:displaysDroolingLevel ?droolinglevel;
oe2022-dogs:displaysSheddingLevel ?sheddinglevel;
oe2022-dogs:displaysBarkingLevel ?barkinglevel;
oe2022-dogs:displaysStrangerFriendlinessLevel ?strangerfriendlinesslevel.
?phys_profile a oe2022-dogs:BreedPhysicalProfile;
cmns-cls:characterizes ?breed;
oe2022-dogs:hasMaxWeight ?maxWeight.
?popularityRating a oe2022-dogs:BreedPopularityRating;
cmns-rt:rates ?breed;
cmns-rt:hasRatingScore ?ratingScore.
?ratingScore cmns-rt:hasMeasureWithinScale ?popularityQuantitativeScore.
}
ORDER BY ?popularityQuantitativeScore ?barkinglevel DESC(?strangerfriendlinesslevel) ?sheddinglevel ?droolinglevel
Execute
?breedLabel
0 results
Git: dog-breed-ontology
Reasoner active
Show Inferences

Results



Shown are the expected results