

TOTAL CORRECT OUTPUTS = 10/20 = 50%

TRANSLATABLE: Cqs which should be transformed to a correct query (with no approximations required)

Correct outputs: 3/7 = 42.86%	Output generated	Is it Correct?	Can query be generated?
Which exercises are contraindicated for a patient?	<pre>SELECT DISTINCT * WHERE { <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> rdfs:subClassOf [a owl:Restriction; owl:onProperty <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#contraindicated> ; owl:someValuesFrom ?x] . ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise>) }</pre>	YES	YES
Which exercises are recommended for a patient?	<pre>SELECT DISTINCT * WHERE { <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> rdfs:subClassOf [a owl:Restriction; owl:onProperty <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#recommended> ; owl:someValuesFrom ?x] . ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise>) }</pre>	YES	YES
Which movements compose an exercise?	<pre>SELECT DISTINCT * WHERE { <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Exercise> rdfs:subClassOf [a owl:Restriction; owl:onProperty <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#hasMovement> ; owl:someValuesFrom ?x] . ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Movement> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Movement>) }</pre>	YES	YES
Which are the body parts that compose a shoulder?	Cannot generate a query from given CQ/ontology.	NO	YES
Which is the type of an auxiliary movement?	<pre>SELECT DISTINCT * WHERE { ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Movement> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Movement> && ?x != owl:Nothing) }</pre>	NO	YES (APPROXIMATED)
Which body part does an auxiliary movement refer to?	Cannot generate a query from given CQ/ontology.	NO	YES (APPROXIMATED)
Which range of movement does a movement cover?	Cannot generate a query from given CQ/ontology.	NO	YES
Which exercises compose a phrase of a treatment protocol?	Cannot generate a query from given CQ/ontology.	NO	YES

Which are the conditions that a patient must fulfill In order to be in a phsase of a treatment protocol?	Cannot generate a query from given CQ/ontology.	NO	YES
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UNTRANSLATABLE: Cqs which should generate empty result because they cannot be expressed using a query (mainly due to missing ontology vocab)

Correct outputs: 7/11 = 63.64%

Which is the laterality of a shoulder?	Cannot generate a query from given CQ/ontology.	YES	NO
Which results are obtained from the exploration of the joint movement of the patient?	Cannot generate a query from given CQ/ontology.	YES	NO
What is the physiotherapy diagnostics of the patient?	Cannot generate a query from given CQ/ontology.	YES	NO
Which is the family and personal past history of the patient?	Cannot generate a query from given CQ/ontology.	YES	NO
How much pain does the patient report on The Visual Analogue Scale (VAS)?	Cannot generate a query from given CQ/ontology.	YES	NO
Which are the conditions that an exercise must fulfill to be a Candidate exercise for a phase of a treatment protocol?	Cannot generate a query from given CQ/ontology.	YES	NO
What is the patient's age?	SELECT DISTINCT * WHERE { ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> && ?x != owl:Nothing) }	NO	NO
Which health issue does the patient report?	Cannot generate a query from given CQ/ontology.	YES	NO
Which are the patient's recovery goals?	SELECT DISTINCT * WHERE { ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> && ?x != owl:Nothing) }	NO	NO
Which phase is a patient in?	SELECT DISTINCT * WHERE { <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> rdfs:subClassOf ?x . ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Phase> . filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Phase> && ?x != <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient>) }	NO	NO
Which exercises do patients usually perform badly?	SELECT DISTINCT * WHERE { <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#Patient> rdfs:subClassOf [a owl:Restriction; Owl:onProperty <http://bdi.si.ehu.es/bdi/ontologies/TrhOnt#recommended> ; owl:someValuesFrom ?x] . ?x rdfs:subClassOf <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise> . Filter(?x != <http://bdi.si.ehu.es/bdi/ontologies/KiReSOntFM#Exercise>) }	NO	NO

Comments

Good query!, SeeQuery found out that Exercise should be placed right-hand-side of the 'contraindicated' property

Good query!, SeeQuery found out that Exercise should be placed right-hand-side of the 'recommended' property

Good query!, SeeQuery found out that Movement should be placed right-hand-side of the 'hasMovement' property
expected something like:
<http://purl.org/sig/ont/fma/fma25202> is an IRI representing shoulder

```
SELECT ?subpart WHERE {  
  <http://purl.org/sig/ont/fma/fma25202> rdfs:subClassOf [ a owl:Restriction; owl:someValuesFrom ?subpart ]  
}
```

expected something like (note that approximation using two properties is used:
Phrase 'is the type' mapped to ~ hasComponent and hasMovementType together

```
SELECT ?type WHERE {  
  KiReSOntFM#AuxiliaryMovement rdfs:subClassOf [  
    A owl:Restriction; owl:onProperty KiReSOntFM:hasComponent; owl:someValuesFrom [  
      A owl:Restriction; owl:onProperty KiReSOntFM:hasMovementType; owl:someValuesFrom ?type ]  
    ]  
}
```

expected something like (note that approximation using two properties is used:
Phrase 'Refer to' maps to ~ hasComponent and hasLocation

```
SELECT ?location WHERE {  
  KiReSOntFM#AuxiliaryMovement rdfs:subClassOf [  
    A owl:Restriction; owl:onProperty KiReSOntFM:hasComponent;  
    Owl:someValuesFrom [  
      A owl:Restriction; owl:onProperty KiReSOntFM:hasLocation; owl:someValuesFrom ?location ]  
    ]  
}
```

No required query template available, expected something like:

```
Select ?min, ?max {  
  KiReSOntFM#Movement rdfs:subClassOf  
    [ a owl:Restriction; owl:onProperty KiReSOntFM:hasROMmin; owl:hasValue ?min ],  
    [ a owl:Restriction; owl:onProperty KiReSOntFM:hasROMmax; owl:has Value ?max]  
}
```

expected something like:

```
SELECT ?exercise WHERE {  
  $phase rdfs:subClassOf [  
    a owl:Restriction; owl:onProperty KiReSOntFM:hasExercise;  
    Owl:someValuesFrom ?exercise ].  
  ?exercise rdfs:subClassOf KiReSOntFM:NamedExercise  
}
```

expectes something like:

```
SELECT ?condition where {
  $phase rdfs:subClassOf KiReSOntFM:Phase,
  [ a owl:Restriction; owl:onProperty KiReSOntFM:hasConditions;
    Owl:someValuesFrom ?condition ]. }
```

No class/property/instance named like Laterality

No class/property/instance named like joint movement

No class/property/instance named like physiotherapy diagnosis

There is hasPastHistory but expects a subclass/instance of 'Answer' in the Domain

We don't think that a query can be constructed here

No notion of candidate exercise

We don't think that a query can be constructed here

Wrong query, we think that we cannot state a query here

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Wrong query, we think that we cannot state a query here,
Cannot find anything on badly performed exercises