**Examples of curl requests to work with semantic reasoner:**

**GET Requests**

**Get a specific node that exists in the Neo4j DB:**

**curl -s -H "Content-Type: application/json" -X GET** [**http://localhost:3001/ontology/Jane**](http://localhost:3001/ontology/Jane)

**Get all items:**

**curl -s -H "Content-Type: application/json" -X GET** [**http://localhost:3001/ontology**](http://localhost:3001/ontology)

**POST Requests**

**Create a Link between two concepts:**

**curl -s -H "Content-Type: application/json" -X POST** [**http://localhost:3001/ontology/programming /John**](http://localhost:3001/ontology/programming%20/John)

**Create a new concept:**

**curl -s -H "Content-Type: application/json" -X POST** [**http://localhost:3001/ontology/Robert**](http://localhost:3001/ontology/Robert)

**Calculate the Yen’s shortest path between a set of concepts:**

**curl -s -H "Content-Type: application/json" -X POST -d'{"graphName": "myGraph", "origin":[{"label":"John","tag":["programming", "algorithms", "discrete mathematics"],"type":"", "xpath":["student", "informatics"]},{"label":"Jane","tag":["algebra","algorithms","graph theory"], "type":"", "xpath":["student", "mathematics"]}, {"label":"Kate", "tag":["programming", "algebra", "mechanics"], "type":"", "xpath":["student", "engineering"]}], "target":[{"label":"informatics", "tag":["algorithms", "programming", "operating systems", "databases"], "type":"", "xpath":["study course"]},{"label":"mathematics", "tag":["algebra", "graph theory", "discrete mathematics"], "type":"", "xpath":["study course"]}, {"label":"physics", "tag":["mechanics", "optics", "electromagnetism"], "type":"", "xpath":["study course"]}]}'** [**http://localhost:3001/ontology**](http://localhost:3001/ontology)

**PUT Requests**

**Update the weight of a relation between two concepts:**

**curl -s -H "Content-Type: application/json" -X PUT http://localhost:3001/ontology/programming /John**

**Insert a batch of related concepts:**

**curl -s -H "Content-Type: application/json" -X PUT -d'{"pairs":[{"origin":"John", "target":"mathematics"},{"origin":"Robert","target":"physics"},{"origin":"Kate", "target":"graph theory"}]}'** [**http://localhost:3001/ontology**](http://localhost:3001/ontology)

**DELETE Requests**

**Delete a specific concept (the concept is defined by name parameter):**

**curl -s -H "Content-Type: application/json" -X DELETE http://localhost:3001/ontology/Kate**

**Delete a link between two concepts:**

**curl -s -H "Content-Type: application/json" -X DELETE http://localhost:3001/ontology/Kate/John**

**Delete all concepts and relations:**

**curl -s -H "Content-Type: application/json" -X DELETE** [**http://localhost:3001/ontology**](http://localhost:3001/ontology)

**curl -s -H "Content-Type: application/json" -X POST -d'{"graphName": "myGraph", "origin":[{"label":"John","tag":["programming", "algorithms", "discrete mathematics"],"type":"", "xpath":["student", "informatics"]}], "target":[{"label":"informatics", "tag":["algorithms", "programming", "operating systems", "databases"], "type":"", "xpath":["study course"]}]}'** [**http://localhost:3001/ontology**](http://localhost:3001/ontology)

**curl -s -H "Content-Type: application/json" -X POST <http://localhost:3001/ontology/John>/philosophy**

**curl -s -H "Content-Type: application/json" -X PUT http://localhost:3001/ontology/programming/informatics**

**[**

**{**

**"origin": [**

**{**

**"label": "John",**

**"xpath": [**

**"student",**

**"informatics"**

**]**

**},**

**{**

**"suggestion": {**

**"label": "informatics",**

**"score": 2,**

**"cumulative\_weight": 0.33333333333333337,**

**"xpath": [**

**"study course"**

**],**

**"rank": 1**

**},**

**"graph": [**

**{**

**"start": "John",**

**"weight": 0.16666666666666669,**

**"end": "programming"**

**},**

**{**

**"start": "programming",**

**"weight": 0.16666666666666669,**

**"end": "informatics"**

**}**

**]**

**}**

**]**

**}**

**]**