

| Function                   | Description   | URL              | Parameters               | Returns   |
|----------------------------|---|------------------|--------------------------|---|
| semantifySchemaAndInstance | <p>Semantify.io &gt; Upload &gt; 'Semantify' button</p> <p>Upload schema and instance<br/>Process includes:<br/>1. validateXml(): xsd, xml validation<br/>2. handleOntology(): XSD to ontology, XML to RDF triples, Validate Ontology correctness, store ontology and rdf triples</p> | POST /ontologies | xmlSchema<br>xmlInstance | <p>Success:<br/>{<br/>  success:{<br/>    ontologyId: 3<br/>  }<br/>}</p> <p>Error:<br/>{<br/>  error:{<br/>    errorCode: 100,<br/>    message: blah<br/>  }<br/>}</p> |
| validateXml                | xsd, xml validation   | -                | xmlSchema<br>xmlInstance | if success: Return true<br>Else: throw error  |
| handleOntology             | 1. convertOntology()<br>2. validateOntology()<br>3. storeOntology()   | -                | xmlSchema<br>xmlInstance | if success: Return ontologyId<br>Else: throw error  |
| convertOntology            | Convert schema to ontology<br>Convert instance to rdf triples   | -                | xmlSchema<br>xmlInstance | if success: Return [ontology, rdfTriples]<br>Else: throw error  |
| validateOntology           | Ontology validation   | -                | ontology,<br>rdfTriples  | if success: Return true<br>Else: throw error  |
| storeOntology              | Store ontology and rdf  | -                | ontology,                | if success: Return ontologyId   |

|                 | triples into RDF STORE   |                      | rdfTriples         | Else: throw error  |
|-----------------|--|----------------------|--------------------|--|
| getIDOntologies | Request a list of IDs and the corresponding filename from all the ontologies in the RDF store. | GET /ontologies      | -                  | <p>Success:</p> <pre>{   ontologies: {     1: "name 1",     2: "name 2",     3: "name 3",     42: "temp name"   } }</pre> <p>Error:</p> <pre>{   error:{     errorCode: 100,     message: blah   } }</pre> |
| getOntology     | Request a specific instance, its name and its content  | GET /ontologies/{id} | ID of the ontology | <p>Success:</p> <pre>{   ontologies: {     1: {       name: "name 1",       content: "OWL string"     }   } }</pre> <p>Error:</p> <pre>{   error:{</pre>   |

|               |                                       |                          |                |   |
|---------------|---------------------------------------|--------------------------|----------------|---|
|               |                                       |                          |                | <pre>         errorCode: 100,         message: blah       }     } </pre>  |
| queryOntology | Query the Ontology and return triples | POST<br>/ontologies/{id} | String (query) | <pre> Success: {   result: "OWL string with the result of the query" }  Error: {   error:{     errorCode: 100,     message: blah   } } </pre> |