Algorithm 6 Use of the ELK reasoner through OWL API to make ABox and TBox classifications

1: procedure Reasoning with ELK
2:   loadontology(ontology);
3:   createReasoner(ontology);
4:   precomputeInferences(InferenceType.CLASS_HIERARCHY);
5:   precomputeInferences(InferenceType.CLASS_ASSERTIONS);
6:   precomputeInferences(InferenceType.DATAPROPERTYASSERTIONS);
7:   precomputeInferences(InferenceType.DIFFERENTINDIVIDUALS);
8:   precomputeInferences(InferenceType.SAMEINDIVIDUAL);
9:   add(new InferredSubClassAxiomGenerator());
10:  add(new InferredEquivalentClassAxiomGenerator());
11:  add(new InferredClassAssertionAxiomGenerator());
12:  saveOntology(ont);
13:  closeReasoner;
14: end procedure