feature, as rules can efficiently be run in parallel, allowing for scalable reasoning implementations.

OWL2 RL differs from the QL and EL profiles in that it provides a bridge between the DL perspective and that of OWL Full: rule reasoners can easily disregard the restrictions of OWL DL (such as the separation between classes and individuals). This means that rule implementations of OWL2 RL can implement subsets of OWL Full. Many of the most scalable reasoners for Semantic Web languages implement OWL2 RL or a very similar language called pD* or OWL-Horst. The set of rules that have to be implemented is published as part of the OWL2 RL specification.

4.6 Summary

- OWL2 extends RDF and RDF Schema with a number of very expressive language features, such as cardinality constraints, class equivalence, intersection, and disjunction.
- Formal semantics and reasoning support is provided through the correspondence of OWL with logics.
- OWL2 comes in two flavors. OWL2 DL is a language that imposes some restrictions on the combination of OWL2 and RDFS language elements to retain decidability. OWL2 Full is a fully compatible extension of RDF Schema with all OWL2 language features, but it is known to be undecidable.
- Three profiles, OWL2 EL, OWL2 QL, and OWL2 RL, are syntactic subsets that have desirable computational properties. In particular, OWL2 RL is implementable using rule-based technology and has become the de facto standard for expressive reasoning on the Semantic Web.
- OWL2 has four standard syntaxes, RDF/XML, Manchester Syntax, OWL/XML, and the Functional Style syntax.