Abstract

Web services provides a mechanism to aggregate multiple services into one composite services. It select services based on functional and non-functional attributes of services according to the applied user constraints. Abstract Service Ontology is a framework for optimized service selection which is formalized and developed by using OWL2-RL language. Abstract Service Ontology consists some players which are Service Provider, Information Agent, Ontology Provider, and Composer. Service Provider provides atomic concrete services, Ontology Provider defines offered functionalities and the composer query ontologies to select and execute the best conformed composite services. Request model, Objects Values conformation model and Constraint selection model aims to services selection among best affected objects services. Service selection from constraint model by using SPARQL query can be done, which follows preprocessing, conforming objects values identification and conforming composite services identification. XML files to structure Request model of the user in which requested abstract services list, its affected objects and user's constraints are there for preprocessing. Conforming object values identification determines instances of affected objects. Constraint selection model locates services which relates to the value of SPARQL query 1. Models are used for efficient and improved selection of service. Some Bio-Inspired Optimization algorithms and integration in modules can be applied and its results, efficiency can
be improved and execution time can be reduced.

References


Index Terms

Computer Science
Web Services
Keywords

- OWL2-RL
- SPARQL
- Composite Services
- XML
- Bio-Inspired Optimization