SWRL $\leftrightarrow$ SQURL

**Query**

- list of something
- show, export, ...
- search
- user list

**Web:**

- user registration
- manipulate database
- execute functionality (Web service)

**Action:** change of status property

**Language**

- booking of flights
- list of flights
A web service is a software function provided at a network address over the web or the cloud, it is a service that is "always on" as in the concept of utility computing.

The W3C defines a "Web service" as "a software system designed to support interoperable machine-to-machine interaction over a network". It has an interface described in a machine-processable format (specifically Web Services Description Language, known by the acronym WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.\(^1\)

The W3C also states, "We can identify two major classes of Web services, REST-compliant Web services, in which the primary purpose of the service is to manipulate XML representations of Web resources using a uniform set of "stateless" operations, and arbitrary Web services, in which the service may expose an arbitrary set of operations.\(^2\)

Web API

Web API is a development in Web services where emphasis has been moving to simpler representational.
Related technologies

Semantic Web languages:
- Ontology Inference Layer (OIL)
- DARPA Agent Markup Language (DAML)
- DAML+OIL
- Web Ontology Language (OWL)
- Resource Description Framework (RDF)
- Web Services Modeling Language (WSML)
- Web Services Semantics (WSDL-S)
- SAWSDL

Semantic Web Service frameworks:
- WSME
- OWL-S
- Quasar
- WSMO
- IRS-IT
- METEOR-S
- HALEY
- BioMOBY (Bioinformatics)
- SSWAP

Related projects

European projects

- Ongoing projects funded in the Seventh Framework Programme
  - SHAPE
  - SOAAlliance
  - Service Web 3.0
  - Service-Finder
What is OData?

Framework,
- protocol execution of services
- presentation of knowledge (atom)
- representation of data