

QueryWeather_Info

Service01	
URI	http://www.daml.org/services/owl-s/1.2/Service.owl#WeatherInforService
Provider	Wuhan weather station

Description_Language01	
Description_Language	OWL-S

Access_protocol01	
Access_protocol	http

Input01	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Placename

Input02	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Date

Output01	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Weathercondition

Output02	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Air-temperature

Quality_Property01	
Quality_Property_Type	Availability, Cost

PlanTravel_Route

Service02	
URI	http://www.daml.org/services/owl-s/1.2/Service.owl#PlanTravel_Route Service
Provider	Traveling Planning Center

Description_Language02	
Description_Language	OWL-S

Access_protocol02	
Access_protocol	http

Input03	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#StartingPlaceName

Input04	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Destination

Input05	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#TravelingManner

Input06	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#UserPreference

Input07	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#Time

Output03	
Message_Type	string
annotation	http://www.daml.org/services/owl-s/1.2/ontology.owl#RouteInformation

Quality_Property02	
Quality_Property_Type	Reliability, Cost

The Service “QueryWeather_Info” is described as WSMO below:

1.Ontologies

```

namespace { _"http://example.org/tripReservationOntology#",
dc _"http://purl.org/dc/elements/1.1#",
loc _"http://example.org/locationOntology#",
po _"http://example.org/TimeOntology#",
wc _"http://example.org/WeatherOntology#"
tm _"http://example.org/TemperatureOntology#"
foaf _"http://xmlns.com/foaf/0.1/",
wsml _"http://www.wsmo.org/wsml/wsml-syntax#",
prs _"http://example.org/owlPersonMediator#"
}

ontology _"http://example.org/QueryWeatherOntology"

```

```

nonFunctionalProperties
dc#title hasValue "Query Weather Ontology"
dc#creator hasValue _ "http://example.org/foaf#deri"
dc#format hasValue "text/x-wsml"
endNonFunctionalProperties
usesMediator _ "http://example.org/owlPersonMediator"

```

2. Web Services

```

webService _ "http://example.org/QueryWeather"
importsOntology _ "http://example.org/Query_Weather_Ontology"
capability QueryWeatherCapability
interface QueryWeatherInterface

capability QueryWeatherCapability
  sharedVariables{? Placename , ? Date, ? Weathercondition, ? Air-temperature , ?
Air-temperature }
  precondition
    defineBy
      ?Placename memberOf loc#Location
      ?Date memberOf po#Date

  assumption
    definedBy
      ?Placename [type hasvalue "ChinaArea"]

  postcondition
    definedBy
      ? Weathercondition memberOf wc#weather
      ?Air-temperature memberOf tm#temperature

```

3. Goal

```

goal _ "http://example.org/havingAReservationInnsbruckVenice"
importsOntology {
_ "http://example.org/WeatherOntology",
_ "http://www.wsmo.org/ontologies/TemperatureOntology" }

Capability
  precondition
    defineBy
      postcondition
        ? Weathercondition memberOf wc#weather
        ?Air-temperature memberOf tm#temperature

```

4. Mediator

```
wgMediator _"http://example.org/wgMed"  
  source _"http://example.org/QueryWeather"  
  target _"http://example.org/havingAReservationInnsbruckVenice"
```