

#### Semantic Web Services - PS 703655

# Assignment 3 Web Services

**Deadline:** 19.04.2018 08:00

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## 1 SOAP Web Services (20 points)

Use your favourite programming language and tools<sup>1</sup> to create a SOAP web service based on the interface in Listing 1.

*Product* is a complex type that is shown in Listing 2.

To complete the assignment, please submit the following:

```
public interface IProductService
{
   //returns the list of all products
   List<Product> getProductList();

   //returns the product object whose id is given
   Product getProduct(int productID);

   //returns true if the order is successful, otherwise returns false
   bool order(int productID, int quantity);
}
```

Listing 1: Interface for the web service

<sup>&</sup>lt;sup>1</sup>e.g. JAX-WS, .NET WCF



### April 12, 2018



```
public class Product
{
     int productID ;
     string name;
     double price;
}
```

Listing 2: Product type

- WSDL document (7 points)
- One SOAP request and one SOAP response for each operation (6 points)
- One SOAP fault: Define one exceptional situation for one operation (e.g. product not found exception for getProduct operation) and create a SOAP fault for it. (7 points)