



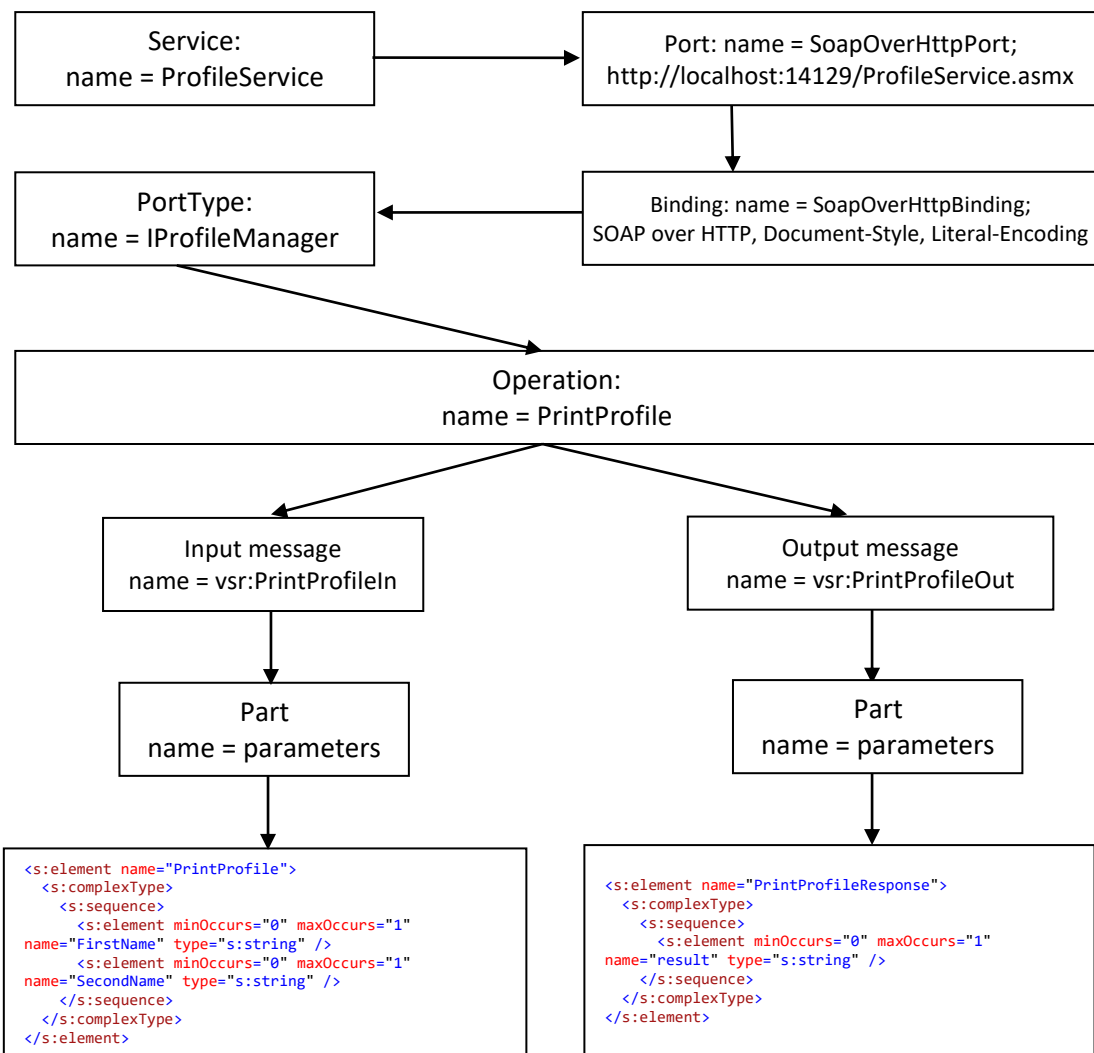
SSE | Tutorial 7

Note: This tutorial requires tools that are not yet available for .NET Core, i.e., the tutorial does only work on Windows.

Exercise 1

In the project *ProfileService_uncompleted.zip* you will find a template for a simple Web service and a template for its WSDL1.1 description (*ProfileService.wsdl*).

1. Based on the following diagram complete the WSDL description:



2. Based on the WSDL description above, generate a **service stub** class:
 - a. Go to Start → All Programs → Microsoft Visual Studio → Microsoft Visual Studio Tools → Developer Command Prompt
 - b. `cd PATH_TO_YOUR_PROJECT`

- c. `wSDL.exe /server ProfileService.wsdl /out:ProfileService.asmx.cs` (Replace the existing file with the newly generated one)
3. Complete the implementation of the *PrintProfile* operation by returning a concatenation of its parameters.
 - a. Remove all the *abstract*-keywords and start the service.
 - b. Test its functionality in the browser by sending a GET request to the service URL:
<http://localhost:14129/ProfileService.asmx>.

Exercise 2

1. In the given solution *SortService_uncompleted.zip* create a subproject, which should be a simple Web service for sorting an array of integers (input: `int[]`, output: `int[]`)
 - a. Select *File* → *New project* → *Visual C#* → *Choose .NET Framework 2.0* → *ASP.NET Web Service Application*
 - b. In the newly added project complete the class *Service1.asmx.cs* by implementing a method *Sort* for sorting arrays of integers
 - c. Start the service (endpoint should be at <http://localhost:PORT/Service1.asmx>) and download the automatically generated WSDL file into the directory of the ***SortServiceClient*** project.
2. Implement the service client in the subproject *SortServiceClient*, which should invoke the service above. Use an automatically generate **proxy** class:
 - a. Go to *Start* → *All Programs* → *Microsoft Visual Studio* → *Microsoft Visual Studio Tools* → *Developer Command Prompt*
 - b. `cd PATH_TO_THE_PROJECT\`
 - c. `wSDL.exe YOUR_WSDL_NAME.wsdl /out:SortServiceProxy.cs` (Replace the existing file with the newly generated one)
 - d. Run both subprojects to test the communication

Homework

Write down a WSDL file with one single operation called “*Substring*”, which should extract characters from a given string *input* in the given range *start* and *end*. Create a Web service and a corresponding client based on this WSDL file. Test your solution by running the both projects in parallel.