# Homework: Web Services, SOA, SOAP, WSDL and REST

This document defines the homework assignments from [the "Web Services and Cloud" Course @ Software University](https://softuni.bg/courses/web-services-and-cloud/). Please submit as homework a single zip / rar / 7z archive holding the solutions (source code) of all below described problems.

## Distance Calculator SOAP Service

Create a **SOAP-based Web service** for calculating distances between points in the plane. It should expose an endpoint "CalcDistance" taking two parameters: startPoint(x, y) and endPoint(x, y). Use integer coordinates. It should return as a result a single **floating-point number**.

## Distance Calculator Client

Write a C# client to invoke the Distance calculator SOAP service. Use a Console application. Add a Web Service Reference to your service in Visual Studio.

## Distance Calculator REST Service

Write a **RESTful Web service** to calculate distance between points in the plane. It should take two points as input (integer coordinates x and y) and return a JSON as a result (a single **floating-point number**).

## Distance Calculator REST Client

Write a C# client to invoke the Distance calculator REST service. Use external REST library like **RestSharp** (<http://restsharp.org>) or the built-in .NET classes like WebClient and HttpWebRequest.