

Assignment-01

Prog-3170 Distributed Applications Development

Deadline: 16 October 2022 11:59PM

The purpose of this assignment is to create simple WCF services and communicate with the console application.

Learning objectives:

1. Setting up lab environment
2. Work with C# programming language and .net framework.
3. Understand WCF applications.

Prerequisites:

1. Create a GitHub account if you already have use the same
2. Create a new public repository and name it wcf-assignment1.
3. Clone it to your local computer.
4. Install Visual Studio 2022 community edition (Note: You can work on other versions to, but class will follow the latest one).
5. Install WCF from addons.
6. Create a project at the GitHub location repo on the local computer.

Once you have completely setup the above environment, create a sample project and create a console application to perform the below activities.

1) Prime number

Write a c# program to check a given number is a prime number.

Input: 23	Input: 32
Output: prime number	Output: not prime number

2) Sum of Digits

Write a c# program to print the sum of all the digits.

Input: 56	Input: 622
Output: 11	Output: 10

3) Reverse a string

Write a C# program to reverse a string.

Input: Hello

Output: olleH

4) Print HTML tags.

Write a C# program to print HTML tags.

Input:

Tag: h1

Data: Hello World

Output: <h1>Hello World</h1>

5) Sort 5 numbers

Write a C# program to sort 5 numbers

Input: Sort type: Ascending data: 2,8,3,9,1 output: 1,2,3,8,9	Input: Sort type: Descending data: 3,6,2,9,4 output: 9,6,4,3,2
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Create five methods one for each service and create a console app to execute all the above application. The console app should look something like this.

WCF Assignment 1

1. Prime number
2. Sum of digits
3. Reverse a string
4. Print HTML tags
5. Sort 5 numbers
6. Exit

Enter your choice: _

When we press the desired number, the above problem should execute. For example, when we press 1 the prime number program should execute.

Submission:

Push all your completed code to the github repo created and submit the repo link as part of the assignment. If something is not clear ping me on teams.