Assignment 1

CS321 Winter 2023, Professor Christopher Diggins
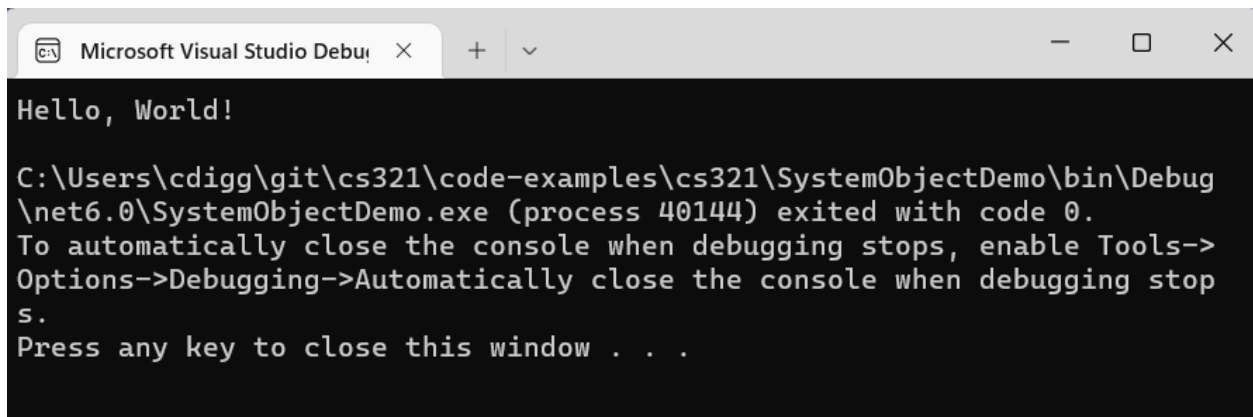
Assigned: Tuesday January 17th, 2023

Due: Sunday February 5th, 2023

Part 1

Download and Install Visual Studio Community on your Personal Computer

1. Create a Hello World Console Project
2. Run it
3. Take a screenshot of the output (should like the image below)
4. Submit the screenshot as cs321-assg1-part1.png

Part 2

Write a simple program that lists the contents of a directory (like "dir"). It should take the name of the directory as a command-line argument. It should list the names of all the files first, and then the names of all the directories.

Output should looks something like:

```
Standard Output:
  Files
  Microsoft.TestPlatform.CommunicationUtilities.dll
  Microsoft.TestPlatform.CoreUtilities.dll
  Microsoft.TestPlatform.CrossPlatEngine.dll
  Microsoft.TestPlatform.PlatformAbstractions.dll
  Microsoft.TestPlatform.Utilities.dll
  Microsoft.VisualStudio.CodeCoverage.Shim.dll
  Microsoft.VisualStudio.TestPlatform.Common.dll
  Microsoft.VisualStudio.TestPlatform.ObjectModel.dll
  Newtonsoft.Json.dll
  NuGet.Frameworks.dll
  nunit.engine.api.dll
  nunit.engine.core.dll
  nunit.engine.dll
  nunit.framework.dll
  NUnit3.TestAdapter.dll
  NUnit3.TestAdapter.pdb
  nunit_random_seed.tmp
  StringDemo.deps.json
  StringDemo.dll
  StringDemo.pdb
  StringDemo.runtimeconfig.json
  testcentric.engine.metadata.dll
  testhost.dll
  testhost.exe
  Directories
  cs
  de
  es
  fr
  it
  ja
  ko
  pl
  pt-BR
```

1. Submit the following work in a single text file: cs321-assg1-part2-plan.txt
   a. A list of hypothetical functions that you think you will need
   b. Some high-level pseudo-code (reasonable attempt)
   c. A list of actual C# functions you find online that you think might help you
2. Write a working C# program using .NET Framework 6.0. Submit the main source file as "Assg1Part2Program.cs" and submit the project file as "Cs321Assg1Part2.csproj".
3. Demonstrate it working and submit a screenshot: cs321-assg1-part2.png.

Grading Criteria

1. Part 1:
   a. Screenshot: **2 Point**
2. Part 2:
   a. Plan:
      i. List of hypothetical functions: **1 Point**
      ii. Pseudo-code: **1 Point**
      iii. List of C# functions that might help: **1 Point**
   b. Actual code:
      i. Understandable and with comments: **1 Points**
      ii. Valid C# 10 and .NET 6 code: **1 Point**
      iii. Uses at least one function other than main: **1 Point**
   c. Project:
      i. Compiles, Runs, and works on my test directory: **1 Point**
   d. Screenshot: **1 Point**
   e. Bonus:
      i. Outputs sizes and dates of files: **1 Bonus Point**
3. Total: **10 Points + 1 Bonus Points**