Lab 1

CS321L Winter 2023, Professor Christopher Diggins

Overview

This lab focuses on creating NUnit tests on Visual Studio. If you find a way to recreate the steps using Visual Studio for Mac and another unit test framework (e.g., xUnit) that is acceptable, but it is not recommended.

Tasks

A) Create an NUnit test project (.NET Framework 6).
B) In that project create a static test function named "TestLiterals" to print the string representation run-time type of the following expressions. Run the test project from the "test explorer" window.
   a. "Hello", 123, 12.34, 1.23f, true, 't', 0xFFul
C) In the same project and file create a static test function "TestLetters" that loops through all ASCII codes (0 to 127) and print only letters. Use the system function "Char.IsLetter"
D) Set a breakpoint in the loop of the "TestLetters" function.
   a. Step through the code.
   b. On the fifth iteration of the loop (loop index == 4), screen shot the "Locals Window".

Submission

Submit a zip file containing the following:

- Screen shot of function output of the "TestLiterals()" function – **1 point**
- Screen shot of function output of the "TestLetters()" function – **1 point**
- Screen shot the "Locals Window" on the fifth iteration of the "TestLetters" loop – **1 point**
- C# code file (.cs) containing the "TestLiterals()" and "TestLetters()" function – **1 point**

Resources

- Running Unit Tests with Test Explorer in Visual Studio 2022 - https://learn.microsoft.com/en-us/visualstudio/test/run-unit-tests-with-test-explorer?view=vs-2022
- Debugging Unit Tests with Test Explorer in Visual Studio 2022 - https://learn.microsoft.com/en-us/visualstudio/test/debug-unit-tests-with-test-explorer?view=vs-2022
- Inspect Variables in the Autos and Locals Windows - https://learn.microsoft.com/en-us/visualstudio/debugger/autos-and-locals-windows?view=vs-2022
- Testing Tools for Visual Studio for Mac - https://learn.microsoft.com/en-us/visualstudio/mac/testing?view=vsmac-2022
- Data visualizations for Visual Studio for Mac - https://learn.microsoft.com/en-us/visualstudio/mac/data-visualizations?view=vsmac-2022