Lab 2

CS321L Winter 2023, Professor Christopher Diggins

## Overview

This lab will explore creating solutions with multiple projects, sharing code between projects, and using visual studio.

## Tasks

1. Create a solution file named Lab2.sln
2. Add an NUnit test project named: Lab2UnitTests.csproj
3. Add a class library named: Lab2Common.csproj
4. Add the following Console projects:
   1. Lab2Type – outputs the contents of a file to standard-out. If no file is passed on the command-line it just outputs the contents of standard-in.
   2. Lab2Sort – outputs lines from standard-in, in sorted order to standard-out
   3. Lab2Find – outputs lines from standard-in that contain the specified string
5. Add a reference to Lab2Common.csproj from each console project
6. Place the main implementation code in Lab2Common
7. Add a reference to Lab2Common.csproj from Lab2UnitTests.csproj
8. Write some unit tests that test the functionality
9. Compile and run the tests in Debug mode
10. Compile and run the tests in Release mode

Each Console Project Should

* If passed “/?” on the command line (as any argument) do nothing except output a short description.
* Outputs to standard-out (e.g., using Console.WriteLine())
* If command line contains a file path open the file as standard input.
* If command line arguments are neither “/?” or a filepath
* If the command line is empty take its input from standard-in (e.g. using Console.ReadLine())
* Perform its task once it gets to the end of the input file file or Console.ReadLine() returns null

## Submission

Submit a zip file containing the following:

* Solution file, projects, source files, and release mode executables
* Screen shots (.PNG) demonstrating that each program works:
  + With a /? On command line
  + With a file name on command line
  + With input piped from standard input