***NOTE: Because this is the last week of the course, your homework assignments and peer reviews are due before the last day of the course.  Check and verify the last date of the course to ensure you submit on time.***

***NOTE:******This is a WPF application and requires Windows to run.  If you are not using Windows, you will need to either modify the code for your platform or open the .cs file and make changes to the code.  You may not be able to test the functionality.  There are many free options available such as a trial version of Windows on the Microsoft TechNet Evaluation Center and most platforms support virtual machine environments.***

For this assignment, you will modify existing code to use asynchronous processing.  Download the starter project [here](https://d37djvu3ytnwxt.cloudfront.net/assets/courseware/v1/c654526e5026da79b642d78e7ad037e0/asset-v1:Microsoft+DEV204x+1T2017+type@asset+block/Mod12_Homework.zip).

This application consists of a single WPF form with a text box and two buttons.  The application will allow you to type text into the text box and then click Write File to write the contents out to a file on your local computer.   Clicking the Read File button will read the contents back into the text box from that file.

Depending on the speed of your computer and I/O subsystem, async may not be necessary if the file size is small however, you will modify the code to use asynchronous methods for this homework assignment.   If you are unclear as to the changes required, please review the demonstration video for this module.

For this homework assignment, complete the following steps and then submit the text of your code to the Peer Review:

1. Open the Mod12\_Homework solution.
2. Test the application first to ensure that it writes the contents you enter in the text box, out to a file.  Read in the file to verify.
3. Modify the WriteText method to:
   1. include Async in its name
   2. Return a Task
   3. Make the method asynchronous with the correct method modifer
   4. The FileStream class includes an asynchronous version of Write.  Research the class, find the method, and make the necessary changes to sourceStream.Write to make it asynchronous.
   5. Modify the using (FileStream sourceStream....) in the WriteText method so that the sourceStream will use async.  HINT: Type a comma after bufferSize: 4096 and look at the overloads available for this statement.  Identify the correct addition and add it.
4. Modify the WriteFile() method to be asynchronous and to call the WriteTextAsync() method correctly.
5. Test the ability to write the file with your modifications
6. Modify the ReadText method to:
   1. Include Async in the name
   2. Return a Generic Task of type string
   3. Make the method asynchronous with the correct method modifier
   4. Like the Write method, the Read method also comes in an asynchronous version. Research it and modify the sourceStream.Read method in the while loop to be asynchronous
   5. Modify the using (FileStream sourceStream....) in the ReadText method so that the sourceStream will use async.  HINT: Type a comma after bufferSize: 4096 and look at the overloads available for this statement.  Identify the correct addition and add it.
7. Modify the ReadFile() method to be asynchronous with the correct method modifier
8. Modify the call to ReadTextAsync appropriately for asynchronous operations

Submit the text of your code for peer review