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// Introduction to Windows and Web Applications in C#
// example solution to assignment 3
// (file I/O to count lines, 2D array for talk like a pirate)
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using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace Code03
{
    class Homework3
    {
        public static void Main()
        {
            TalkLikeAPirate();
            ExamineCode();
            ExtensibleTalkLikeAPirate();
        }

        /// <summary>
        ///  Rewrite the “Talk Like a Pirate” translator from assignment 1
        ///  to use arrays. Make the “Talk Like a Pirate” translator
        ///  extensible by reading in the phrases from a file. Hint: Put
        ///  the English and pirate phrases one pair to a line, using a
        ///  distinctive separator. Create one 2-dimensional array. Use
        ///  a for statement to iterate through the arrays and make
        ///  replacements to the input string.
        /// </summary>
        private static void ExtensibleTalkLikeAPirate()
        {
            string[] translations = System.IO.File.ReadAllLines(
                    @"C:\Users\bruce\Documents\CS2008\Week03\Solution03\PirateTranslations.txt");
            string[,] pairs = new string[translations.Length, 2];

            for (int index = 0; index < translations.Length; index++)
            {
                string[] tokens = translations[index].Split('|');
                pairs[index, 0] = tokens[0];
                pairs[index, 1] = tokens[1];
            }

            Console.Write("Enter your sentence: ");
            string answer = Console.ReadLine().ToLower();
    for (int index = 0; index < translations.Length; index++)
    {
        answer = answer.Replace(pairs[index,0], pairs[index,1]);
    }

    Console.WriteLine("The pirate sentence is: {0}", answer);
}

/// <summary>
///  Rewrite the “Talk Like a Pirate” translator from assignment 1 to
///  use arrays. Create two arrays. The first holds the English words,
///  the second holds the pirate words. The 0th element of the English
///  array corresponds to the 0th element of the pirate array, and so
///  on for the 1st, 2nd, etc. elements. Use a for statement to iterate
///  through the arrays and make replacements to the input string.
/// </summary>
private static void TalkLikeAPirate()
{
    string[] english = { "excuse me", "sir", "where is", "is that", "the", "my", "your", "restaurant" };
    string[] pirate = { "arr", "matey", "whar be", "be that", "th'", "me", "yer", "galley" };

    Console.Write("Enter your sentence: ");
    string answer = Console.ReadLine().ToLower();
    for (int index = 0; index < english.Length; index++)
    {
        answer = answer.Replace(english[index], pirate[index]);
    }

    Console.WriteLine("The pirate sentence is: {0}", answer);
}

/// <summary>
/// Write a program than reads in a .cs file. Print out the number of
/// lines of comments, the number of for statements, and the number of
/// blank lines. The Trim and StartsWith methods of the string class
/// will be helpful.
/// </summary>
private static void ExamineCode()
{
    try
    {
        // loc is a common abbreviation for "lines of code"
        string[] loc = System.IO.File.ReadAllLines(
             @"C:\Users\bruce\Documents\CS2009Fall\Week03\Solution03\SomeCode.cs");
        int blanks = 0;
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                int fors = 0;
                int comments = 0;

                for (int index = 0; index < loc.Length; index++)
                {
                    string line = loc[index];
                    line = line.Trim();
                    if (line == "")
                    {
                        blanks++;
                    }

                    if (line.StartsWith("//"))
                    {
                        comments++;
                    }

                    if (line.StartsWith("for"))
                    {
                        fors++;
                    }

                    Console.WriteLine(line);
                }
                Console.WriteLine();
                Console.WriteLine();
                Console.WriteLine("blanks:\t\t{0}", blanks);
                Console.WriteLine("fors:\t\t{0}", fors);
                Console.WriteLine("comments:\t{0}", comments);
            }
            catch
            {
                Console.WriteLine("There was an error in reading or parsing the file.");
            }
        }

    }
}
```