

## ASSIGNMENT #7

Write a complete Visual Basic .NET application which performs a language/locale-sensitive sort of an input textfile. The input textfile will consist of a first line which is one of the strings “en-US”, “de-DE”, “ru-RU,” “es-MX,” or “es-TRADITIONAL” , followed by ten lines each of which consists of a single word (lowercase, no embedded blanks or punctuation, left-justified) in the corresponding language (i.e., English, German, Russian, Spanish, and Spanish, respectively). For testing purposes you will be provided with five Unicode text files in the above format, one corresponding to each of the above languages/locales.

Your user interface should contain the following components:

"Path to Input Text File"	(a textbox)
"Language/Locale-Sensitive Sort Order Used"	(a label)
"Unsorted Text"	(a textbox)
"Sorted Text"	(a textbox)
"Read and Sort"	(a button)
"Exit"	(a button)

The user specifies a path to the desired input text file by entering the path in the "Path to Input Text File" textbox. Clicking the button labeled “Read and Sort” causes the specified text file to be read into an internal array "unsorted" of String. Using any standard sort algorithm (for which you must write the VB source code), e.g., bubblesort, a sorted array "sorted" of String is then created, using the appropriate language/locale-sensitive sort comparator as discussed in lecture. The arrays "unsorted" and "sorted" are then displayed, one string per line, in the "Unsorted Text" and "Sorted Text" textboxes respectively. Clicking the "Exit" button terminates the program.

For “es-MX” use the “international” sort order for Spanish; and for “es-TRADITIONAL” use the “traditional” sort order. Note that for “es-TRADITIONAL” the method used to instantiate a CompareInfo object is different than that used for the other language/locales. Search on “Spanish Traditional LCID” in the MSDN Library for further information, including source code examples.

In this assignment, the GUI itself should not be localized. That is, although the text appearing as content in the "Unsorted" and "Sorted" text boxes may be in any of the above four languages, the text labels on the controls in the GUI (e.g., "Exit" , "Read and Sort" , etc.) are always in English.

You may code the application in any one of the following programming languages: Microsoft Visual Basic, Microsoft Visual C, Microsoft Visual C++, or Microsoft Visual C#. Your application must be executable by clicking on the project .exe file located in the BIN subdirectory of your project directory. You must be prepared to demo your application in class to the grader/assistant on and after the due date.

de-DE  
donnerstag  
grün  
gelb  
weiß  
schlüssel  
regen  
hügel  
fünf  
sonntag  
rot

en-US  
thursday  
green  
yellow  
white  
key  
rain  
hill  
five  
sunday  
red

es-MX  
jueves  
verde  
amarillo  
blanco  
llave  
llover  
loma  
cinco  
domingo  
rojo

es-TRADITIONAL  
jueves  
verde  
amarillo  
blanco  
llave  
llover  
loma  
cinco  
domingo  
rojo

ru-RU  
четверг  
зеленый цвет  
желтый цвет  
бело  
ключ  
дождь  
холм  
пять  
воскресенье  
красно