using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace Activity8WordCounter

{

public partial class WordCounter : Form

{

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Title: WordCount\*/

public WordCounter()

{

InitializeComponent();

}

//Enter button.

private void buttonEnter\_Click(object sender, EventArgs e)

{

int NoNumbers = 0;

//CheckBox value.

if (checkBoxNumberExclusion.Checked)

{

NoNumbers = DoNotCountNumbers();

}

//Tries for extra spaces or the absence of data.

try

{

string xUpper = UpperCase();

richTextBoxCapitalizeSentence.Text = xUpper;

labelDisplayNumberOfWords.Text = (WordCounterMethod() + NoNumbers).ToString();

//Verifies that the average is not negative.

if ((AverageNumberOfLettersMethod() + NoNumbers) > 0)

{

labelDisplayAvhNumberOfWords.Text = (AverageNumberOfLettersMethod() + NoNumbers).ToString();

}

else

{

labelDisplayNumberOfWords.Text = "0";

labelDisplayAvhNumberOfWords.Text = "0";

}

}

catch

{

//Shows error message.

MessageBox.Show("There is an extra space in your sentence or there is nothing in it.", "Error!", MessageBoxButtons.OK, MessageBoxIcon.Warning);

}

}

//Method for counting words.

private int WordCounterMethod()

{

string strCount = richTextBoxSentence.Text;

int count = 0;

int index = 1;

char[] delim = null;

string[] tokens = strCount.Split(delim);

count = tokens.Length;

return count;

}

//Method for not counting numbers.

private int DoNotCountNumbers()

{

string strCount = richTextBoxSentence.Text;

int count = 0;

int index = 0;

int i = 1;

char[] delim = null;

string[] tokens = strCount.Split(delim);

while (index <= (tokens.Length - 1))

{

if (tokens[index].StartsWith("0") || tokens[index].EndsWith("0"))

{

count--;

}

else if (tokens[index].StartsWith("1") || tokens[index].EndsWith("1"))

{

count--;

}

else if (tokens[index].StartsWith("2") || tokens[index].EndsWith("2"))

{

count--;

}

else if (tokens[index].StartsWith("3") || tokens[index].EndsWith("3"))

{

count--;

}

else if (tokens[index].StartsWith("4") || tokens[index].EndsWith("4"))

{

count--;

}

else if (tokens[index].StartsWith("5") || tokens[index].EndsWith("5"))

{

count--;

}

else if (tokens[index].StartsWith("6") || tokens[index].EndsWith("6"))

{

count--;

}

else if (tokens[index].StartsWith("7") || tokens[index].EndsWith("7"))

{

count--;

}

else if (tokens[index].StartsWith("8") || tokens[index].EndsWith("8"))

{

count--;

}

else if (tokens[index].StartsWith("9") || tokens[index].EndsWith("9"))

{

count--;

}

index++;

}

return count;

}

//Method that calculates average number of words.

private double AverageNumberOfLettersMethod()

{

string strCount = richTextBoxSentence.Text;

double Avg = 0;

int Sum = 0;

int denominator = 1;

char[] delim = null;

string[] tokens = strCount.Split(delim);

for (int i = 0; i <= tokens.Length -1 ; i++)

{

Sum = Sum + tokens[i].Length;

denominator++;

}

double Sum2 = Convert.ToDouble(Sum);

Avg = Sum2/ denominator;

return Avg;

}

//Method that turns sentence into first upper letter of each word.

private string UpperCase()

{

string Sum = "";

string strCount = richTextBoxSentence.Text;

char[] delim = null;

string[] tokens = strCount.Split(delim);

for (int i = 0; i <= tokens.Length - 1; i++)

{

Sum = Sum + tokens[i].Substring(0, 1).ToUpper() + tokens[i].Substring(1) + " ";

}

return Sum;

}

//Exit button.

private void buttonExit\_Click(object sender, EventArgs e)

{

this.Close();

}

//Clear button.

private void buttonClear\_Click(object sender, EventArgs e)

{

richTextBoxSentence.Text = "";

labelDisplayNumberOfWords.Text = "";

labelDisplayAvhNumberOfWords.Text = "";

richTextBoxCapitalizeSentence.Text = "";

checkBoxNumberExclusion.Checked = false;

}

}

}