

Palindrome with Arrays

Problem Description:

A palindrome is a word or phrase that is the same forwards and backwards. For example the word "radar" is a palindrome. Write a program that reads in a word from the keyboard and determines if the word is a palindrome. The program does not need to determine if the characters entered are actually a word. The word will be terminated by the value ".". The "." is not part of the word and should not be looked at when determining the palindrome. You should ignore case when comparing letters. The characters should be read into a character array. The maximum word length is 20. Your program must use a function called `pal` that takes a `char` array and an `int` size as parameters. The function will return an `int` value of 1 if the array contains a palindrome and it will return a value of 0 if it is not a palindrome. Your program should include a loop that lets the user repeat the palindrome determination until the user says she or he is done.

Example Output:

```
Enter a word (. to end the word): radar.

The word "radar" is a palindrome.

Would you like to check another palindrome? (Y or N): Y
Enter a word (. to end the word): library.

The word "library" is NOT a palindrome.

Would you like to check another palindrome? (Y or N): N
End program.
```

Required Test Cases:

```
radar.
Radar.
SantaClaus.
ASantaStopsPotsAtNASA. (should not work, too long)
DennisSinned.
NoLemonsNoMelon.
abcxycba.
WasItACarOrACatISaw.
```

Skills:

•Var •Con I/O ◦Format •Logic •Loops ◦Functions ◦Call by Ref ◦File I/O •Arrays ◦Strings ◦GM