

CSCE 145: Lab 17

Palindrome Detection

Objectives

In this week's lab you will learn about String Processing in Java.

Instructions

A palindrome is a string that reads the same forwards and backwards, such as "warts n straw" or "radar".

Write a program that will accept a string of characters terminated by a carriage return and will determine whether or not the string is a palindrome. In your program, define a static method called *palindrome* that begins as follows:

```

/*****
 * Precondition: The String input contains letters and blanks in
 * positions input[0] through input[length - 1].
 * Returns true if the string is a palindrome and false otherwise.
 *****/

public static boolean palindrome(String input) {

```

Hint: Use the methods `charAt(int index)` and `toLowerCase()` or `toUpperCase()` of the String class.

Note:

- Consider uppercase and lowercase versions of the same letter to be equal, so the following will be considered a palindrome by your program:

Able was I ere I saw Elba

Example Output

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

Radar

BINGO!! The entered input is a palindrome!

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

AaBbAa

BINGO!! The entered input is a palindrome!

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

ah ha

BINGO!! The entered input is a palindrome!

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

ah ha!

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The entered input is NOT a palindrome.

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

ah h a

The entered input is NOT a palindrome.

Input the string that needs to be checked if it is a palindrome
(press n to terminate the program):

n

Process Palindrome finished

Files needed for this lab to run:

Palindrome.java

Upload your files to the [CSE Dropbox](#) when you are done.