A palindrome is a string of letters that reads the same forward and backward (ignoring spaces, punctuation, and capitalization). For example:

A man, a plan, a canal: Panama!

Assignment

Write a Java program to determine if a string represents a palindrome:

1. The program will accept input (i.e., a potential palindrome) for testing in two ways
   a. On the command line, for example
      ```java Palindrome a man a plan a canal panama
   b. If the number of command line arguments is 0, it will prompt the user for input
      and read the input with a Scanner object, for example
      ```java Palindrome
      Please enter a potential palindrome:
      a man a plan a canal panama
2. Write a one-line message to the screen stating that the input was or was not a valid palindrome
3. The input to your programs will not contain punctuation or mixed-case letters but will contain spaces
4. Name your program Palindrome.java (remember that Java is case sensitive)

Suggestions

- For 1.a, it is probably easiest to first concatenate all of the command line arguments into a single string. From there you may do a character-by-character comparison in a for-loop or see the methods available in java.lang.StringBuilder
- For 1.b, you must remove all spaces. See the String replace and replaceAll methods.

Program Submission and Grading

Upload Palindrome.java to Blackboard / WSU Online

Note that both command line and Scanner input are required in a single program – test the number of command line arguments to determine which behavior to execute.

I often use batch files to grade programs and my automated tests will fail if you do not follow the instructions when naming classes/files. The test bed will also fail if you place your assignments in packages (which many IDEs do automatically) – please comment out package statements.