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1 *****
2 * PROGRAMMED BY : Nick Reardon
3 * CLASS       : CS1D
4 * SECTION      : MW - 2:30p
5 * Assignment #1 : Recursion
6 *****
7
8             Assignment #1 - Recursion
9
10    Write a recursive function that takes a string as an argument and
11    returns a TRUE if the string is a palindrome otherwise FALSE is
12    returned. A palindrome is a string that reads the same forward
13    and backward (dad, mom, radar). Test with a main program that
14    calls the function. The main function could solicit for input and
15    terminate after receiving an EOF or one can store the strings in a
16    vector or array.
17
18    The recursive function should ignore white spaces, capital letters
19    (case insensitive), and punctuation. For example: ôA man a plan a
20    canal Panamaö would be a palindrome.
21
22    -Use paragraphing and comment each logical block of source code.
23    -Do not use global variables. Your output should be descriptive.
24
25    Use the following input:
26    A man a plan a canal Panama
27    The rain in Spain
28    No lemon, no melon
29    radar
30    CS1D
31    Was it a cat I saw?
32    Racecar
33    Saddleback
34    dad
35
36    Due January 22nd
37 *****
38
39    ** Populating vector with strings read from file
40    ** Testing each string in the vector for palindrome
41
42    -----
43
44    | A man a plan a canal Panama | MATCH
45    | ^                           ^ |
46    | A man a plan a canal Panama | MATCH
47    | ^                           ^ |
48    | A man a plan a canal Panama | MATCH
49    | ^                           ^ |
50    | A man a plan a canal Panama | MATCH
51    | ^                           ^ |
52    | A man a plan a canal Panama | MATCH

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53      ^           ^
54 | A man a plan a canal Panama | MATCH
55      ^           ^
56 | A man a plan a canal Panama | MATCH
57      ^           ^
58 | A man a plan a canal Panama | MATCH
59      ^           ^
60 | A man a plan a canal Panama | MATCH
61      ^           ^
62 | A man a plan a canal Panama | MATCH
63      ^           ^
64 | A man a plan a canal Panama | MATCH
65      ^
66 This IS a palindrome
67
68 -----
69
70 | The rain in Spain | NO MATCH
71      ^           ^
72 This is NOT a palindrome
73
74 -----
75
76 | No lemon, no melon | MATCH
77      ^           ^
78 | No lemon, no melon | MATCH
79      ^           ^
80 | No lemon, no melon | MATCH
81      ^           ^
82 | No lemon, no melon | MATCH
83      ^           ^
84 | No lemon, no melon | MATCH
85      ^           ^
86 | No lemon, no melon | MATCH
87      ^           ^
88 | No lemon, no melon | MATCH
89      ^           ^
90 This IS a palindrome
91
92 -----
93
94 | radar | MATCH
95      ^ ^
96 | radar | MATCH
97      ^ ^
98 | radar | MATCH
99      ^
100 This IS a palindrome
101
102 -----
103
104 | CS1D | NO MATCH

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```
105      ^ ^
106  This is NOT a palindrome
107
108  -----
109
110  | Was it a cat I saw? | MATCH
111      ^           ^
112  | Was it a cat I saw? | MATCH
113      ^           ^
114  | Was it a cat I saw? | MATCH
115      ^           ^
116  | Was it a cat I saw? | MATCH
117      ^           ^
118  | Was it a cat I saw? | MATCH
119      ^           ^
120  | Was it a cat I saw? | MATCH
121      ^ ^
122  | Was it a cat I saw? | MATCH
123      ^
124  This IS a palindrome
125
126  -----
127
128  | Racecar | MATCH
129      ^ ^
130  | Racecar | MATCH
131      ^ ^
132  | Racecar | MATCH
133      ^ ^
134  | Racecar | MATCH
135      ^
136  This IS a palindrome
137
138  -----
139
140  | Saddleback | NO MATCH
141      ^           ^
142  This is NOT a palindrome
143
144  -----
145
146  | dad | MATCH
147      ^ ^
148  | dad | MATCH
149      ^
150  This IS a palindrome
151
152  -----
153
154  Press any key to continue . . .
```