```
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
```

```
          ^               ^
  | A man a plan a canal Panama |  MATCH
            ^           ^
  | A man a plan a canal Panama |  MATCH
             ^         ^
  | A man a plan a canal Panama |  MATCH
               ^       ^
  | A man a plan a canal Panama |  MATCH
                 ^     ^
  | A man a plan a canal Panama |  MATCH
                   ^  ^
  | A man a plan a canal Panama |  MATCH
                     ^
 This IS a palindrome

-------------------------

  | The rain in Spain |  NO MATCH
    ^               ^
 This is NOT a palindrome

-------------------------

  | No lemon, no melon |  MATCH
    ^                ^
  | No lemon, no melon |  MATCH
     ^              ^
  | No lemon, no melon |  MATCH
       ^           ^
  | No lemon, no melon |  MATCH
         ^         ^
  | No lemon, no melon |  MATCH
           ^       ^
  | No lemon, no melon |  MATCH
           ^    ^
  | No lemon, no melon |  MATCH
            ^  ^
 This IS a palindrome

-------------------------

  | radar |  MATCH
    ^   ^
  | radar |  MATCH
     ^ ^
  | radar |  MATCH
       ^
 This IS a palindrome

-------------------------

  | CS1D |  NO MATCH
```

```
    ^  ^
 This is NOT a palindrome

------------------------

 | Was it a cat I saw? |  MATCH
   ^                 ^
 | Was it a cat I saw? |  MATCH
    ^               ^
 | Was it a cat I saw? |  MATCH
     ^             ^
 | Was it a cat I saw? |  MATCH
       ^         ^
 | Was it a cat I saw? |  MATCH
        ^     ^
 | Was it a cat I saw? |  MATCH
          ^  ^
 | Was it a cat I saw? |  MATCH
            ^
 This IS a palindrome

------------------------

 | Racecar |  MATCH
   ^     ^
 | Racecar |  MATCH
    ^   ^
 | Racecar |  MATCH
     ^ ^
 | Racecar |  MATCH
       ^
 This IS a palindrome

------------------------

 | Saddleback |  NO MATCH
   ^        ^
 This is NOT a palindrome

------------------------

 | dad |  MATCH
   ^ ^
 | dad |  MATCH
    ^
 This IS a palindrome

------------------------

Press any key to continue . . .
```