CPSC 1160: ASSIGNMENT 2[25 MARKS]

Exercise 1 [20 marks]

- Write a program that will ask the user for a string of no more than 9 characters in length
    - o This string should only contain the characters A,B,C,D
- You need to write a function that will try to guess the inputted string by trying all possible combination of A,B,C,D until it guesses the correct string
- Your program should print out every string the program has tried followed by ---incorrect or ---correct
- **YOU ARE NOT ALLOWED TO USE ANY LOOPS IN YOUR PROGRAM**

You must write at least three functions

- int main()
    - o Which is the main function. Keep it brief
- A recursion function that checks that the string only contains A,B,C and D's in it
- A recursion function for guessing the inputted string. This function must be recursive and cannot create new strings, vectors or any other object. If you pass in an object (string, vector, ect) to this function you must pass it by reference.

Note: string.resize() is very useful for this assignment. In a string char 0 will not be printed with a std::cout.

SAMPLE OUT

vocstartsoft:~/environment/Assignment2 $ ./ass2
Enter in a string (between 0 and 9 characters): AAAAAABDC
----incorrect
A----incorrect
AA----incorrect
AAA----incorrect
AAAA----incorrect
AAAAA----incorrect
AAAAAA----incorrect
AAAAAAA----incorrect
AAAAAAAA----incorrect
AAAAAAAAA----incorrect
AAAAAAAAB----incorrect
AAAAAAAAC----incorrect
AAAAAAAAD----incorrect
AAAAAAAB----incorrect
AAAAAAABA----incorrect
AAAAAAABB----incorrect

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AAAAAAABC----incorrect
AAAAAAABD----incorrect
AAAAAAAC----incorrect
AAAAAAACA----incorrect
AAAAAAACB----incorrect
AAAAAAACC----incorrect
AAAAAAACD----incorrect
AAAAAAAD----incorrect
AAAAAAADA----incorrect
AAAAAAADB----incorrect
AAAAAAADC----incorrect
AAAAAAADD----incorrect
AAAAAAB----incorrect
AAAAAABA----incorrect
AAAAAABAA----incorrect
AAAAAABAB----incorrect
AAAAAABAC----incorrect
AAAAAABAD----incorrect
AAAAAABB----incorrect
AAAAAABBA----incorrect
AAAAAABBB----incorrect
AAAAAABBC----incorrect
AAAAAABBD----incorrect
AAAAAABC----incorrect
AAAAAABCA----incorrect
AAAAAABCB----incorrect
AAAAAABCC----incorrect
AAAAAABCD----incorrect
AAAAAABD----incorrect
AAAAAABDA----incorrect
AAAAAABDB----incorrect
AAAAAABDC----correct
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Submissions

Make sure that your code is neat and is well commented [5 marks]

Check that all of your programs work the way they are intended to work by running them with different inputs

Submit to D2L a zip/archive file containing only the .cpp you have written