Assignment on Structures

Write a C++ program to manage a user-defined string. The program will create a string

from the input buffer, output the string and its length, and check the string to determine

whether or not it is a palindrome. A palindrome is a string that reads the same forwards

and backwards. Examples:

radar

racecar

a man a plan a canal panama

**Please write a program that will run using the following main program. Use the structure definition and prototypes exactly as given. You only need to implement the three functions whose prototypes are given**

struct StringRec

{

int strLen;

char theStr[256];

};

void AddChar(StringRec& str, char theCh); // adds one character to the string

void OutputString(StringRec str); // outputs the string and the length of the string

bool CheckString(StringRec str); // returns true if string is a palindrome, false otherwise

int  main()

{

StringRec theString;

char theChar;

theString.strLen = 0;

cout << "Enter a string: ";

cin.get(theChar);

while(theChar != '\n')

{

AddChar(theString, theChar);

cin.get(theChar);

}

OutputString(theString);

if( CheckString(theString) )

cout << "\n\nThe string is a palindrome";

else

cout << "\n\nThe string is not a palindrome\n";

}

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