In lab we have built an abstract data type using an opaque object called MYSTRING. I would simply like for you to use the MYSTRING type to write a couple programs that will solve the following problems by using your string data structure.

According to Wikipedia:

A **palindrome** is a word, phrase, number, or other sequence of symbols or elements, whose meaning may be interpreted the same way in either forward or reverse direction. Famous examples include "Amore, Roma", "A man, a plan, a canal: Panama" and "No 'x' in 'Nixon'".

Write a program that uses your MYSTRING opaque object to read strings from stdin. Your program should use the newline character to terminate a string but should not include it in the input. You will note that your string type does not currently have this operation. Let's add it. Add the following function to your interface file as the last function pointer (after concat). Implement the function in a similar way that you implemented the extraction function except that this function does not skip over leading blanks and will read all characters including spaces until it encounters a new line (or EOF). Your function should consume the newline character from the input buffer but should not store it as one of the characters of the string.

```
Status(*get_line)(MY_STRING hMy_string, File* fp);
```

Create a function called is_palindrome that will return 1 if a given MYSTRING object is a palindrome and 0 otherwise. Your function will then examine your string one character at a time, pushing all of the characters that satisfy the isalpha() function in the library ctype to a new, temporary, string and making them all a consistent case with toupper() or tolower(). This will remove all the punctuation and whitespace from the string and make the string easier to test. Now, iterate through the string from the front and back until you cross in the middle and if every character is a match then the string is a palindrome and you should return 1. Your main program does not need to prompt or print anything except for the word yes if the string is a palindrome and no otherwise.

Sample input
A man, a plan, a canal: Panama
Go hang a salami, I'm a lasagna hog.
God! A red nugget. A fat egg under a dog.
Binary information has no meaning without context.

Sample output:
Yes
Yes
Yes
No

All programs must include a comment section at the top of the program as outlined below:
/**

```
        Program:      <name of program>
        Author:       <your name>
        Date:         <date you finish the program>
        Time spent:   <total amount of time spent on the project>
        Purpose:      The purpose of this program is to blah blah blah
**************************************************************************/
```