Name your program: p6.c

This week we need to create a program where the user can enter a phrase (up to 100 characters), and the program will check if it is a *Palindrome.*

Examples of: Palindrome Words: civic, kayak, level, radar

            Palindrome Phrases: Won't lovers revolt now?
                                     Mr. Owl ate my metal worm.
                                     Ma is as selfless as I am.
                                     Never odd or even.
                                     No lemon, no melon.
                                     Step on no pets.

NOTE —> Do not use the #include <string.h> file in this assignment !

Use-Case

USE-CASE NAME / ID	Verify Phrase for Palindrome-ness
ACTORS	cse 121: student, instructor
PRE-CONDITIONS	User is authenticated to use ctec.clark.edu server
POST-CONDITIONS	User is informed as to whether their phrase is a palindrome
OVERVIEW	This use-case prompts the user for a phrase, then determines if the phrase is a palindrome.

DESCRIPTION
1. **_User_** --- types ./p6
2. **_Application_** --- displays on the screen, "Enter a phrase for palindrome checking:"
3. **_User_** ---- enters a phrase and hits return.
4. **_Application_** --- tells user whether or not their phrase is a palindrome:
If yes, application prints "This phrase is a palindrome:" and prints the palindrome.
If no, application prints "Your phrase is not a palindrome."

NOTES AND TBDs
Consider how to handle *blanks*, and any other punctuation the user might type (e.g. !, ?, ', :, ;, ., etc.) Also, the user may type *upper* and *lower* case letters in their phrase.

Below are some functions to consider when designing your program:

(1)   void make_copy_of_string(char str[ ], char str_copy[ ]) //Makes a copy of str[ ]
                                                                        //and put it in str_copy[ ]
(2)   void keep_chars(char str[ ]); //Removes anything except characters

(3)   void convert_upper_to_lower_case(char str[ ]);

(4)   _Bool isPalindrome(char str[ ])   //Returns TRUE if string is a palindrome,

Here is some code that declares a char array and shows how to load it with a string, and how to print a string;

```
#include <stdio.h>

int main (void) {

    char phrase[101]; //declare a char array to hold the input phrase


    printf("Enter a phrase: ");
    fgets(phrase, 101, stdin); //Will read no more than 100 chars.
                               //fgets adds a null at the end of
                               //the string (i.e. '\0')
    printf("|%s|\n", phrase);


    return 0;
}
```

Use the following command to submit your p6.c code

cp   p6.c   /home/faculty/skoss/cse121/your_UID