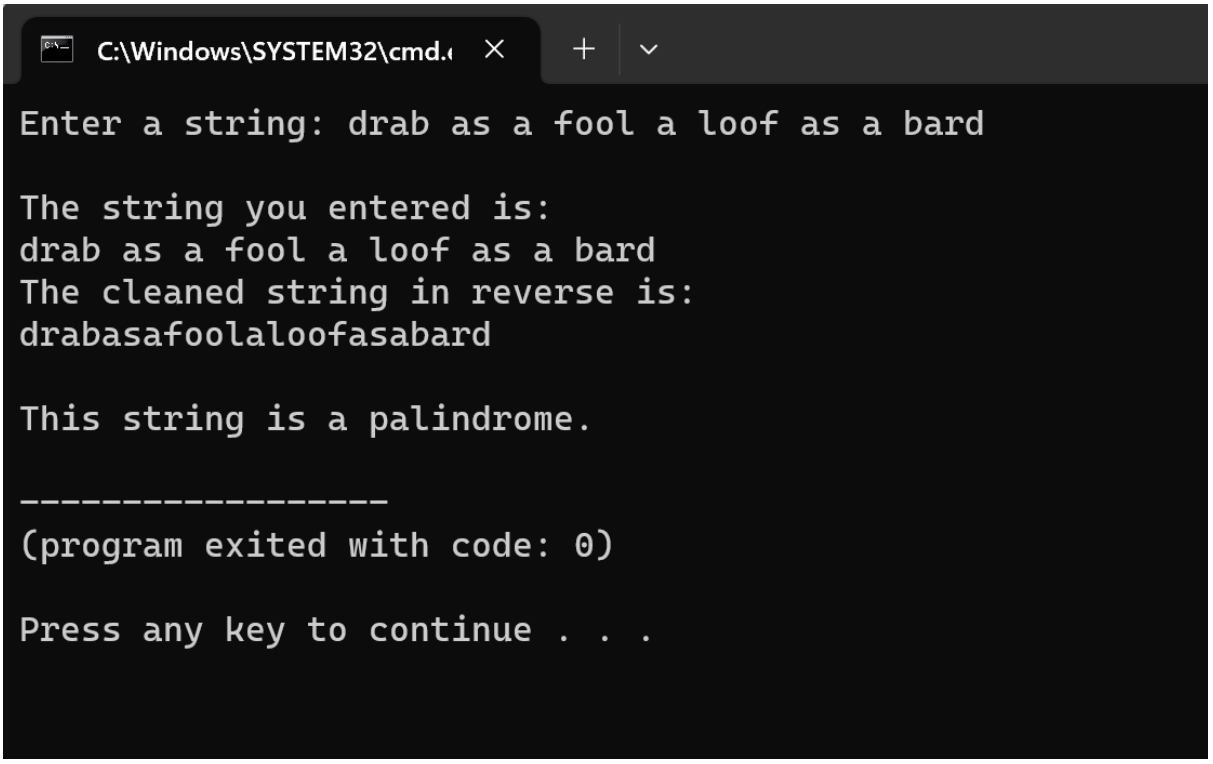
Problem 1:

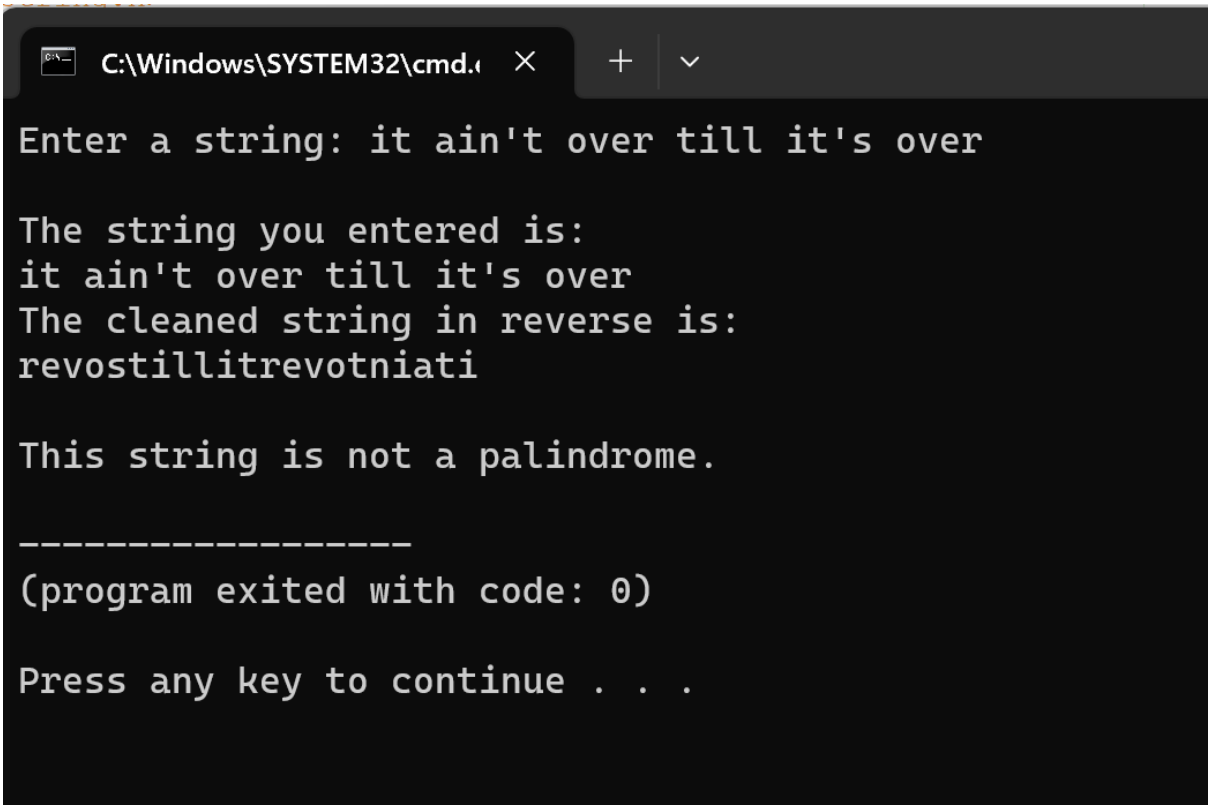
Source code:

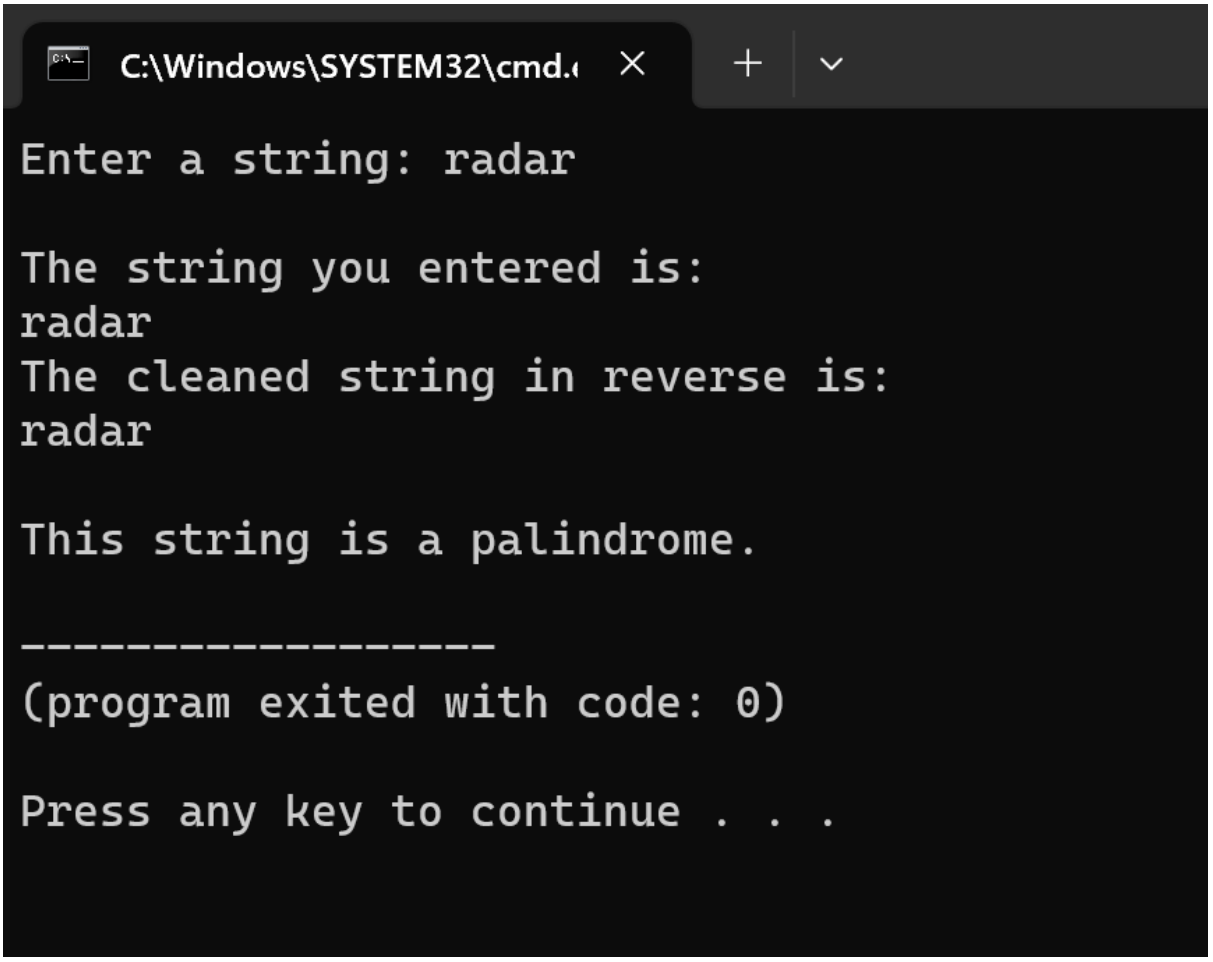
```
#include <stdio.h>
#include <string.h>


void clean (char before[], char after[])
{
    int l=0, k=0, length;

    length=strlen(before);

    for(l=0; l <= length; ++l)
    {
        if(before[l]>=65 && before[l]<=90)
        {
            after[k] = before[k] + 32;
            ++k;
        }
        else if(before[l]>=97 && before[l]<= 122)
        {
            after[k] = before[l];
            ++k;
        }
    }
}

void reverse (char before[], char after[])
{
    static int k=0, length;
    length = strlen(before);

    if(k<=length/2)
    {
        after[k] = before[length-k-1];
        after[length-k-1] = before[k];
        ++k;
        reverse(before, after);
    }
}

int
main(void)
{
    char h[200], u[200], p[200];
    int i=0, length;

    printf("Enter a string: ");
    fgets(h, 200, stdin);

    clean (h, u);
```

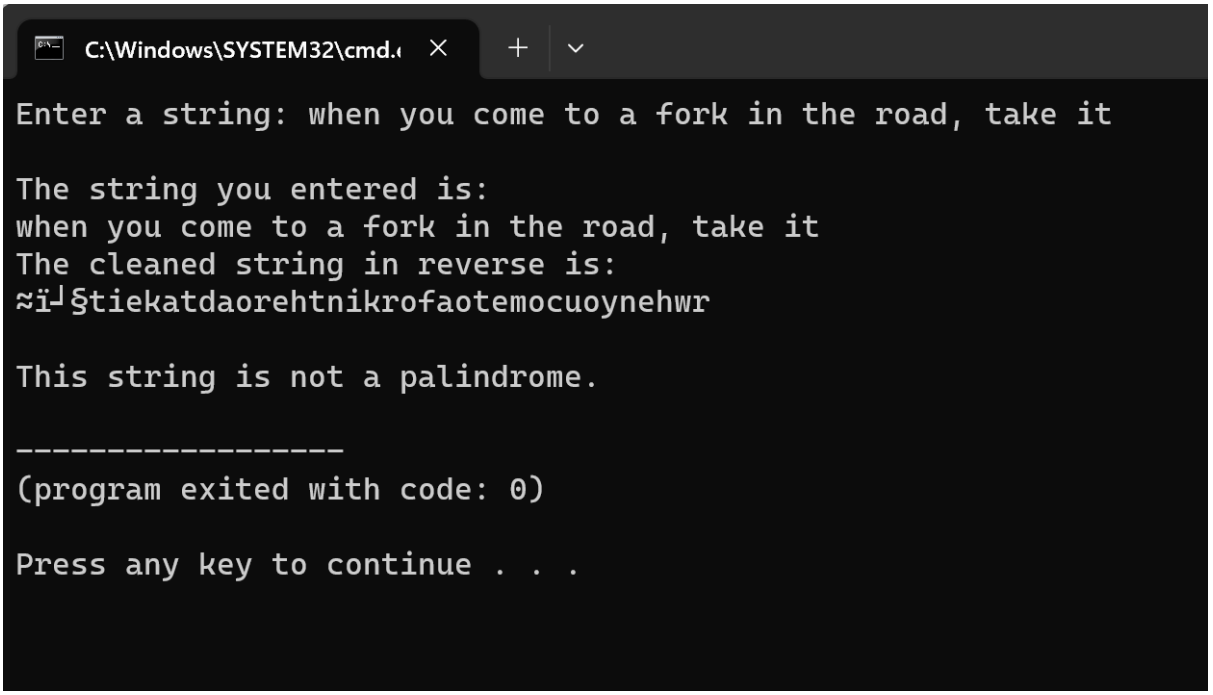
```
    reverse (u, p);

    length = strlen(u);

    while(u[i]==p[i] && i<length)
    {
        ++i;
    }

    printf("\nThe string you entered is: \n%sThe cleaned string in reverse
is: \n%s", h, p);

    if(i==length)
    {
        printf("\n\nThis string is a palindrome. ");
    }
    else
    {
        printf("\n\nThis string is not a palindrome. ");
    }

    return 0;
}
```

Test images:




C:\Windows\SYSTEM32\cmd.
Enter a string: it ain't over till it's over
The string you entered is:
it ain't over till it's over
The cleaned string in reverse is:
revostillitrevotniati
This string is not a palindrome.
(program exited with code: 0)
Press any key to continue . . .


C:\Windows\SYSTEM32\cmd.
Enter a string: radar
The string you entered is:
radar
The cleaned string in reverse is:
radar
This string is a palindrome.
(program exited with code: 0)
Press any key to continue . . .


C:\Windows\SYSTEM32\cmd.
Enter a string: when you come to a fork in the road, take it
The string you entered is:
when you come to a fork in the road, take it
The cleaned string in reverse is:
≈ï┘§tiekatdaorehtnikrofaotemocuoynehwr
This string is not a palindrome.

(program exited with code: 0)
Press any key to continue . . .