

helper.c

```

1  #include<string.h>
2  #include<stdio.h>
3  #include <stdlib.h>
4  #include"cs50.h"
5  #include"helper.h"
6
7  // each of our text files contains 1000 words
8  #define LISTSIZE 1000
9
10 // values for colors and score (EXACT == right letter, right place; CLOSE == right letter,
    wrong place; WRONG == wrong letter)
11 #define EXACT 2
12 #define CLOSE 1
13 #define WRONG 0
14
15 // ANSI color codes for boxed in letters
16 #define GREEN    "\e[38;2;255;255;255;1m\e[48;2;106;170;100;1m"
17 #define YELLOW  "\e[38;2;255;255;255;1m\e[48;2;201;180;88;1m"
18 #define RED     "\e[38;2;255;255;255;1m\e[48;2;220;20;60;1m"
19 #define RESET   "\e[0;39m"
20
21 // Prompts the user to enter the guessed word
22 // Also error checks if the length of the word is of right size, otherwise re-prompts the
    user to enter
23 string get_guess(int wordsize)
24 {
25     string guess = "";
26
27     // ensure users actually provide a guess that is the correct length
28     // TODO #3
29
30     do{
31         guess = get_string("Input a 5-letter word: ");
32     }while(strlen(guess) != 5);
33
34     return guess;
35 }
36
37
38 // Compares the guessed word at each stage and adds a score value,
39 // Correct letter, righth position = 2 (EXACT), Correct letter, wrong position = 1 (CLOSE),
    Wrong letter = 0 (WRONG)
40 int check_word(string guess, int wordsize, int status[], string choice)
41 {
42     int score = 0;
43
44     // compare guess to choice and score points as appropriate, storing points in status
45     // TODO #5
46
47     // iterate over each letter of the guess
48     for(int i = 0; i < wordsize; i++){
49
50         // iterate over each letter of the choice
51         for(int j = 0; j < wordsize; j++){
52             // compare the current guess letter to the current choice letter
53             if(guess[i] == choice[j]){

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54         // if they're the same position in the word, score EXACT points (green) and
break so you don't compare that letter further
55         if(i == j){
56             score += EXACT;
57             status[i] = EXACT;
58             break;
59         }else{
60             score += CLOSE;
61             status[i] = CLOSE;
62         }
63         // if it's in the word, but not the right spot, score CLOSE point (yellow)
64     }
65     // keep track of the total score by adding each individual letter's score from
above
66     }
67 }
68     return score;
69 }
70
71
72 // print_word - Prints the feedback to the user using different color codes (GREEN, YELLOW,
RED)
73 // - Highlights the letters with GREEN for correct letter correct position,
74 // - With RED for wrong letters,
75 // - With YELLOW for correct letter wrong position.
76
77 void print_word(string guess, int wordsize, int status[])
78 {
79     // print word character-for-character with correct color coding, then reset terminal
font to normal
80     // TODO #6
81
82     for(int i = 0; i < wordsize; i++){
83
84         if(status[i] == 2){
85             printf(GREEN " %c " RESET, guess[i]);
86         }else if (status[i] == 1){
87             printf(YELLOW " %c " RESET, guess[i]);
88         }else{
89             printf(RED " %c " RESET, guess[i]);
90         }
91     }
92
93     printf("\n");
94     return;
95 }
96
```