

```
1 #include <stdbool.h>
2 #include <stdio.h>
3 #include <stdlib.h>
4 #define SAFE_MODE false
5
6 // clear standard inout buffer.
7 void clear_stdin(void)
8 {
9     char dummy;
10    while ((dummy = getchar()) != '\n');
11 }
12
13 // Get number from user.
14 double get_double(char prompt_str[], long MIN, long MAX)
15 {
16     double input;
17     int scanned;
18
19     while (1)
20     {
21         // Print prompt string.
22         printf(prompt_str);
23         // Scan for number.
24         scanned = scanf("%lf", &input);
25
26         // Catch non-numeric input error.
27         if (scanned == 0)
28         {
29             printf("\nFORMAT ERROR!!! Non-numeric input detected.\n\n");
30             // If close_on_input_error is true, close program.
31             if (SAFE_MODE == true)
32             {
33                 puts("Program closing...");
34                 exit(0);
35             }
36             clear_stdin();
37             continue;
38         }
39
40         // Catch out of bounds error.
41         if (!(input >= MIN && input <= MAX))
42         {
43             printf("\nFORMAT ERROR!!! Number is out of range.\n\n");
44             // If close_on_input_error is true, close program.
45             if (SAFE_MODE == true)
46             {
47                 puts("Program closing...");
48                 exit(0);
49             }
50             clear_stdin();
51             continue;
52         }
53         break;
54     }
55     return input;
56 }
57
58
59
```