

```
1 Do you want to hear a joke?: Yes
2
3 Great! I knew you liked jokes!
4
5 Why don't zombies eat clowns? Because they taste funny! ^_^
6
7 Do you want to hear a joke?: nah
8
9 Too bad! ^_^
10
11 Why don't zombies eat clowns? Because they taste funny! ^_^
12
13 Do you want to hear a joke?: u23irt
14
15 ERROR: INVALID ANSWER - Please Input Y/N
16 Do you want to hear a joke?: \\.
17
18 ERROR: INVALID ANSWER - Please Input Y/N
19 Do you want to hear a joke?: ya
20
21 Great! I knew you liked jokes!
22
23 Why don't zombies eat clowns? Because they taste funny! ^_^
24
25 Do you want to hear a joke?: No
26
27 Too bad! ^_^
28
29 Why don't zombies eat clowns? Because they taste funny! ^_^
30
```

1  
2 Great! I knew you liked jokes!  
3  
4 Why don't zombies eat clowns? Because they taste funny! ^\_^  
5  
6  
7 Too bad! ^\_^  
8  
9 Why don't zombies eat clowns? Because they taste funny! ^\_^  
10  
11  
12 Great! I knew you liked jokes!  
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14 Why don't zombies eat clowns? Because they taste funny! ^\_^  
15  
16  
17 Too bad! ^\_^  
18  
19 Why don't zombies eat clowns? Because they taste funny! ^\_^  
20  
21

```
1 /*****
2  * AUTHOR      : Blake Allard
3  * STUDENT ID  : 358888
4  * EXR #26     : Ostream/Ostreamstring
5  * CLASS       : CS1A
6  * SECTION     : MW 8am
7  * DUE DATE    : 11/20/24
8  *****/
9
10 #ifndef USERFILESHEADER_H_
11 #define USERFILESHEADER_H_
12
13
14 #include <fstream>      /* ofstream */
15 #include <sstream>      /* ostringstream */
16 #include <iomanip>       /* setw */
17 #include <string>        /* string */
18 #include <iostream>     /* cout, cin */
19 using namespace std;
20
21
22 void ValidateCharInput(char &response);
23
24 void PromptResponseFunction(char &response, ostream &outLoc);
25
26 void OStreamJoke(ostream &outLoc, const string JOKE);
27
28 string OutputOssJoke(const string JOKE);
29
30
31
32 #endif /* USERFILESHEADER_H_ */
33
```

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7  * DUE DATE    : 11/20/24
8  *****/
9
10 #include "UserFilesHeader.h"
11
12
13 int main()
14 {
15
16     const string JOKE = "Why don't zombies eat clowns? Because they taste "
17                         "funny! ^_^\n\n";
18
19     const int MAX_TESTS = 4;
20
21
22     int    loopRuns;
23     char    response;
24     string  myJokePrompt;
25     string  myJoke;
26     ifstream fin;
27     ofstream fout;
28
29
30     //FORMATTING - opens the file named E26.txt as an input file
31     fin.open("E26.txt");
32     //FORMATTING - opens the file named E26.txt as an output file
33     fout.open("E26.txt");
34
35
36     for (loopRuns = 1; loopRuns <= MAX_TESTS; loopRuns++)
37     {
38
39         //FUNCTION CALL - calls function that error checks user input
40         ValidateCharInput(response);
41
42         //FUNCTION CALL - console outputs response based on user input
43         PromptResponseFunction(response, cout);
44
45         //FUNCTION CALL - file outputs response based on user input
46         PromptResponseFunction(response, fout);
47
48         //FUNCTION CALL - converts OutputOssJoke function into a string and
49         //                  assigns it into a global string variable
50         myJoke = OutputOssJoke(JOKE);
51     }
```

```
52
53     fin.ignore(10000, '\n');
54
55     //OUTPUT - console outputs the converted string using ostream
56     cout << myJoke;
57     //OUTPUT - file outputs the converted string using ofstream
58     fout << myJoke;
59
60
61 } //... end for loop
62
63
64 //FORMATTING - closes files
65 fin.close();
66 fout.close();
67
68
69
70 return 0;
71 }
72
```

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7  * DUE DATE    : 11/20/24
8  *****/
9
10 #include "UserFilesHeader.h"
11
12
13
14 void ValidateCharInput(char &response)
15
16 {
17
18     bool invalidLetter;
19
20
21     do
22     {
23
24         cout << "Do you want to hear a joke?: ";
25         if (!(cin.get(response)))
26         {
27             cin.clear();
28         }
29
30         invalidLetter = response != 'y' && response != 'Y' &&
31             response != 'n' && response != 'N';
32
33         if (invalidLetter)
34         {
35             cout << "\nERROR: INVALID ANSWER - Please Input Y/N\n";
36         }
37
38         cin.ignore(10000, '\n');
39
40     }while (invalidLetter);
41
42
43 }
44
```

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7  * DUE DATE    : 11/20/24
8  *****/
9
10 #include "UserFilesHeader.h"
11
12
13
14 void PromptResponseFunction(char &response, ostream &outLoc)
15 {
16
17     if (response == 'y' || response == 'Y')
18     {
19         outLoc << "\nGreat! I knew you liked jokes!\n\n";
20     }
21     else if (response == 'n' || response == 'N')
22     {
23         outLoc << "\nToo bad! ^_^\n\n";
24     }
25 }
26
```

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8  *****/
9
10 #include "UserFilesHeader.h"
11
12
13 void OStreamJoke(ostream &outLoc, const string JOKE)
14 {
15     outLoc << left;
16
17     outLoc << JOKE;
18
19     outLoc << right;
20 }
21
```



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7  * DUE DATE    : 11/20/24
8  *****/
9
10 #include "UserFilesHeader.h"
11
12
13 string OutputOssJoke(const string JOKE)
14 {
15
16     ostringstream outOss;
17
18     outOss << JOKE;
19
20     return outOss.str();
21 }
22
```