```
1: // $Id: catfile.cpp,v 1.1 2016-06-28 14:47:18-07 - - $
2:
3: //
 4: // NAME
 5: //
          catfile - display files to stdout
 6: //
7: // SYNOPSIS
 8: //
          catfile [filename...]
9: //
10: // DESCRIPTION
11: //
          Display contents of files given on the command line.
12: //
          files are specified, display stdin. Interpret "-" as the
13: //
          name of stdin.
14: //
15:
16: #include <cstring>
17: #include <fstream>
18: #include <iostream>
19: #include <string>
20: #include <vector>
21: using namespace std;
22:
23: #include <libgen.h>
24:
25: const string cin_name = "-";
27: void catfile (istream& infile, const string& filename) {
28:
       static string colons (32, ':');
29:
       cout << colons << endl << filename << endl << colons << endl;</pre>
30:
       for(;;) {
31:
          string line;
32:
          getline (infile, line);
33:
          if (infile.eof()) break;
34:
          cout << line << endl;</pre>
35:
       }
36: }
37:
```

```
38:
39: int main (int argc, char** argv) {
       int status = 0;
41:
       string progname (basename (argv[0]));
42:
       vector<string> filenames (&argv[1], &argv[argc]);
43:
       if (filenames.size() == 0) filenames.push_back (cin_name);
44:
       for (const auto& filename: filenames) {
45:
          if (filename == cin_name) catfile (cin, filename);
46:
          else {
47:
             ifstream infile (filename);
48:
             if (infile.fail()) {
49:
                status = 1;
                cerr << progname << ": " << filename << ": "
50:
                     << strerror (errno) << endl;
51:
52:
             }else {
53:
                catfile (infile, filename);
54:
                infile.close();
55:
             }
56:
          }
57:
       }
58:
       return status;
59: }
60:
61: //TEST// date >date.out
62: //TEST// ls -bgoa date* catfile* | catfile - date.out >catfile.out
63: //TEST// rm date.out
64: //TEST// mkpspdf catfile.ps catfile.cpp* catfile.out
65:
```

```
$cse111-wm/Assignments/asg3-listmap-templates/misc
 01/31/20
                                                                         1/1
 13:20:16
                                 catfile.cpp.log
    1: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: starting catfile.cpp
    2: checksource catfile.cpp
    3: ident catfile.cpp
    4: catfile.cpp:
            $Id: catfile.cpp,v 1.1 2016-06-28 14:47:18-07 - - $
    6: cpplint.py.perl catfile.cpp
    7: Done processing catfile.cpp
    8: q++ -Wall -Wextra -Wpedantic -Wshadow -fdiagnostics-color=never -std=gnu
++2a -Wold-style-cast -g -O0 catfile.cpp -o catfile -lm
    9: rm -f catfile.o
   10: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: finished catfile.cpp
```

\$cse111-wm/Assignments/asg3-listmap-templates/misc catfile.out

01/31/20 13:20:16

1/1

```
2: -
4: -rwx----- 1 265224 Jan 31 13:20 catfile
5: -rw---- 1
            1592 Jan 31 13:20 catfile.cpp
6: -rw----- 1
             430 Jan 31 13:20 catfile.cpp.log
483 Jan 28 14:04 catfile.out
7: -rw---- 1
8: -rw----- 1 19641 Jan 28 14:04 catfile.pdf
9: -rw----- 1 21184 Jan 28 14:04 catfile.ps
10: -rw----- 1
               29 Jan 31 13:20 date.out
12: date.out
14: Fri Jan 31 13:20:16 PST 2020
```