

```

1  #include <iostream>
2  #include <fstream>
3  #include <string>
4  #include <cstring> // for string tokenizer and c-style string processing
5  using namespace std;
6
7  int main(){
8
9      string filename;
10     cout << "Enter a file name: ";
11     cin >> filename;
12
13     ifstream fileReader(filename);
14
15     if (!fileReader){
16         cout << "File cannot be opened!! ";
17         return 0;
18     }
19
20     int numCharsPerLine = 10;
21
22     char *line = new char[numCharsPerLine];
23     // '10' is the maximum number of characters per line
24
25     fileReader.getline(line, numCharsPerLine, '\n');
26     // '\n' is the delimiting character to stop reading the line
27
28     while (fileReader){
29
30         cout << "Line Read: " << line << endl;
31
32         // Extracting the integers/node ids using string tokenizer
33         char* cptr = strtok(line, ",: ");
34
35         cout << "Extracted node ids: ";
36         while (cptr != 0){
37
38             string token(cptr);
39             int nodeid = stoi(token);
40             cout << nodeid << " ";
41
42             cptr = strtok(NULL, ",: ");
43         }
44
45         cout << endl << endl;
46
47         fileReader.getline(line, numCharsPerLine, '\n');
48         Enter a file name: binaryTreeFile_1.txt
49         Line Read: 0: 1, 2
50         Extracted node ids: 0 1 2
51
52         Line Read: 1: 3, -1
53         Extracted node ids: 1 3 -1
54
55         Line Read: 2: 4, 5
56         Extracted node ids: 2 4 5
57
58         Line Read: 3: -1, 6
59         Extracted node ids: 3 -1 6
60
61         Line Read: 4: 7, 8
62         Extracted node ids: 4 7 8
63
64         Line Read: 7: 9, -1
65         Extracted node ids: 7 9 -1
66
67     }
68     return 0;
69 }

```