

```
1  #pragma once
2  #include "show.h"
3  using namespace std;
4  #define TREE_DATA_TYPE show
5
6  class tree
7  {
8  private:
9      typedef struct TreeEntry{
10
11          TreeEntry *left;
12          TREE_DATA_TYPE *data;
13          TreeEntry *right;
14
15      } TreeEntry;
16
17      TreeEntry *root;
18      void displayInOrder(TreeEntry *entry);
19      void displayAllTitles(TreeEntry *entry);
20      void displayActorsByShowName(TreeEntry * entry, string showName);
21      void displayShowsByActorName(TreeEntry * entry, string showName);
22      void displayShowsByDateRange(TreeEntry * entry, int yearRangeStart, int yearRangeEnd);
23
24  public:
25
26      tree();
27      void displayAll();
28      void displayAllTitles();
29      void tree::addToTree(TREE_DATA_TYPE *newData);
30
31      void displayActorsByShowName(string showName);
32      void displayShowsByActorName(string actorName);
33
34      void displayShowsByDateRange(int yearRangeStart, int yearRangeEnd);
35
36
37
38      //ADD OTHER FUNCTIONS HERE;
39  };
40
```