

SearchGenre.cpp

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1 /*****
2  * PROGRAMMER : Ali Eshghi
3  * STUDENT ID : 1112261
4  * CLASS      : CS1B
5  * SECTION    : MW 7:30pm
6  * Assign #3  : Searching linked list
7  * DUE DATE   : 6 November 2019
8  *****/
9
10 #include "Header.h"
11
12 /*****
13  * Function - SearchGenre
14  * -----
15  * This function will get a genre from the user and search the genre content of
16  * each node to see if there is a matching genre in the nodes with the genre
17  * searched by the user. if found, the function prints out every content of
18  * every node for the user, if not found, the function outputs that the genre
19  * searched by the user was not found.
20  *
21  * return type - nothing
22  *               the function is void type
23  *****/
24
25 void SearchGenre(MovieNode *head, ofstream &outFile)
26 {
27     /*****
28      * VARIABLES *
29      *****/
30
31     MovieNode *movPtr; //Proc - stores the target name
32     MovieNode node;     //Proc & In - passes the info into persPtr
33
34
35     int i;              //Int - counts the founded data
36
37     /*****
38      * INITIALIZING *
39      *****/
40
41     i = 1;
42
43     /*****
44      * PROCESSING - searching for the genre in the list one by one and output
45      *               each movie with the matching genre to the output file
46      *****/
47
48
49     if (head == NULL)
50     {
51         cout << endl;
52
53         cout << "Can not search for a genre in an empty list.";
54
55         cout << endl;
```

SearchGenre.cpp

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56     }
57
58     else
59     {
60         //creating new node
61
62         movPtr = new MovieNode;
63
64         //INPUT
65
66         cout << endl;
67
68         cout << "Which genre are you looking for? ";
69
70         getline(cin, node.genre);
71
72         *movPtr = node;
73
74         cout << endl;
75
76         cout << "Searching for the genre " << movPtr -> genre;
77
78         cout << endl;
79
80         outFile << "\nSearch by genre for " << movPtr -> genre << " found:";
81
82         outFile << endl << endl;
83
84         outFile << left;
85
86         outFile << setw(9) << "MOVIE #" << " ";
87         outFile << setw(48) << "TITLE" << " ";
88         outFile << setw(5) << "YEAR" << " ";
89         outFile << setw(8) << "RATING" << " ";
90         outFile << setw(18) << "GENRE" << " ";
91         outFile << setw(18) << "ALT GENRE" << " ";
92         outFile << setw(20) << "LEAD ACTOR" << " ";
93         outFile << setw(20) << "SUPPORTING ACTOR" << " ";
94
95         outFile << left;
96
97         outFile << endl;
98
99         outFile << "----- ";
100        outFile << "----- ";
101        outFile << "---- ";
102        outFile << "----- ";
103        outFile << "----- ";
104        outFile << "----- ";
105        outFile << "----- ";
106        outFile << "----- ";
107
108        outFile << endl;
109
110        //GOES THROUGH THE LIST

```

```

111
112 while(head->next != NULL)
113 {
114     if ((head -> genre == movPtr -> genre) ||
115         (head -> altGenre == movPtr -> genre))
116     {
117
118         outFile << right;
119         outFile << setw(4) << i << "      "      ;
120         outFile << left;
121         outFile << setw(47) << head -> title      ;
122         outFile << setw(8) << head -> year      ;
123         outFile << setw(5) << head -> rate      ;
124         outFile << setw(18) << head -> genre      ;
125         outFile << setw(18) << head -> altGenre      ;
126         outFile << setw(20) << head -> leadActor      ;
127         outFile << setw(20) << head -> supportActor;
128         outFile << endl;
129         outFile << left;
130
131         i++;
132         head = head -> next;
133
134     }
135
136     else
137     {
138         head = head -> next;
139     }
140
141 } // END - WHILE
142
143
144 if ((head -> next == NULL && (head -> genre == movPtr -> genre)) ||
145     (head -> next == NULL && (head -> altGenre == movPtr -> genre)))
146 {
147
148     outFile << right;
149     outFile << setw(4) << i << "      "      ;
150     outFile << left;
151     outFile << setw(47) << head -> title      ;
152     outFile << setw(8) << head -> year      ;
153     outFile << setw(5) << head -> rate      ;
154     outFile << setw(18) << head -> genre      ;
155     outFile << setw(18) << head -> altGenre      ;
156     outFile << setw(20) << head -> leadActor      ;
157     outFile << setw(20) << head -> supportActor;
158     outFile << endl;
159     outFile << left;
160     i++;
161     head = head -> next;
162
163 }
164
165 //IF NOT FOUND IN THE LIST

```

SearchGenre.cpp

```
166
167     if (i == 1)
168     {
169         cout << "Sorry, no movies for the genre, " << movPtr -> genre
170             << " were found.";
171
172         cout << endl;
173     }
174
175     //OUTPUT RESULT INTO THE CONSOLE
176
177     if(i > 1)
178     {
179         cout << "Found " << i-1 << " movies for the genre "
180             << movPtr -> genre << '!' << endl;
181     }
182
183     movPtr = NULL;
184     delete movPtr;
185
186 }
187
188 }
189
```