

main.cpp

```
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 * Assignment 3
14 * -----
15 * Write a program that allows a user to track/search their DVDs. Use an input
16 * file, which includes the following attributes for each movie:
17 * -Title
18 * -Leading actor/actress
19 * -Supporting Actor
20 * -Genre
21 * -Alternate Genre
22 * -Year
23 * -Rating
24 * -Synopsis
25 * -----
26 * INPUT : option      -> Menu option for which action
27 *         node.title   -> Which title the user is searching
28 *         node.leadAcotr -> Which actor the user is searching
29 *         node.genre    -> Which genre the user is searching
30 *         node.year     -> Which year the user is searching
31 *         node.rate     -> Which rating the user is searching
32 * -----
33 * PROCESS: Creating the linked list of the DVD's nodes with the named contents
34 *           Searching for the title between the title content of nodes
35 *           Searching for the acotr's name between the actors' content of nodes
36 *           searching for the genre between the genre content of nodes
37 *           searching for the year between the year content of nodes
38 *           searching for the rating between the rate content of nodes
39 * -----
40 * OUTPUT : every content of the node found based on the title search
41 *           every content of every nodes found based on the actor's search
42 *           every content of every nodes found based on the genre search
43 *           every content of every nodes found based on the year search
44 *           every content of every nodes found based on the rating search
45 *****/
46
47 int main()
48 {
49     /*****
50     * CONSTANTS
51     * -----
52     * OUTPUT - USED FOR CLASS HEADING
53     * -----
54     * PROGRAMMER : Programmer's Name
55     * CLASS      : Student's Course
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56  * SECTION      : Class Days and Time
57  * LAB_NUM      : Lab Number (specific to this lab)
58  * LAB_NAME     : Title of the Assignment
59  *****/
60
61  const string PROGRAMMER = "Ali Eshghi";
62  const string CLASS      = "CS1B";
63  const string SECTION= "MW: 7:30p - 9:50p";
64  const int    ASSIGN_NUM = 3;
65  const string ASSIGN_NAME= "Searching Linked list";
66
67  /*****
68   * VARIABLES *
69   *****/
70
71  ofstream    outFile;    // OUT - Program outputs here
72  int         option;    // IN & PROCESS - menu option input by user
73  MovieNode   *head;     // PROCESS - the linked list
74
75
76  /*****
77   * INITIALIZING *
78   *****/
79
80
81  head = NULL;    //CREATE AN EMPTY LIST
82
83  outFile.open ("outFile.txt");    //OPEN OUTPUT FILE
84
85
86  //This function will output the header file
87  PrintHeader(PROGRAMMER, CLASS, SECTION, ASSIGN_NUM, ASSIGN_NAME, outFile);
88
89  //This function gets the data from the input file and put them in the
90  //content of the nodes and add them to the list
91  CreatList(head);
92
93  //This function prints the menu and gets the option from the user.
94  option = PrintMenu();
95
96  /*****
97   * PROCESS - Actions of the functions based on the option, chose *
98   * by the user *
99   *****/
100
101  //while loop for continuing the program for the searches until the user
102  //determines to terminate it
103  while (option != 0)
104  {
105      switch(option)
106      {
107
108
109          case EXIT: break;
110
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111
112 //Display the list of the movies in the output file
113 case DISPLAY: cout << endl;
114               DisplayList(head, outFile);
115
116               break;
117
118
119 //Search in the movies based on title
120 case TITLE:   SearchTitle(head, outFile);
121
122               break;
123
124
125 //Search in the movies based on genre
126 case GENRE:   SearchGenre(head, outFile);
127
128               break;
129
130
131 //Search in the movies based on actor
132 case ACTOR:   SearchActor(head, outFile);
133
134               break;
135
136
137 //Search in the movies based on year of make
138 case YEAR:    SearchYear(head, outFile);
139
140               break;
141
142
143 //Search in the movies based on rating
144 case RATE:    SearchRate(head, outFile);
145
146               break;
147
148     }
149
150     cout << endl;
151     //This function prints the menu and gets the option from the user.
152     option = PrintMenu();
153
154 } // END of while loop
155
156 outFile.close(); //closing the output file
157
158 return 0;
159
160 }
161
```