

Movie Database project report

● Introduction:

My task was to imitate a database for files describing various movies created by the user. I was supposed to come up with a system for adding, viewing and deleting particular movie entries, along with creating a list of all movies already available, which would be accessible for the user at any time. There were also some additional tasks, like adding tags, rating movies, getting recommendations based on our preferred genres and even implementing a UI. However, I didn't manage to include all of the tasks in my project, simply because of my low level of knowledge and skill regarding c++ programming.

● C++ features used:

Inheritance:

Classes "ViewInfo" and "FileName" inherit variables and methods from one other class;

Multiple Inheritance:

Classes "AddMovie" and "Delete" inherit many variables and methods from numerous separate classes;

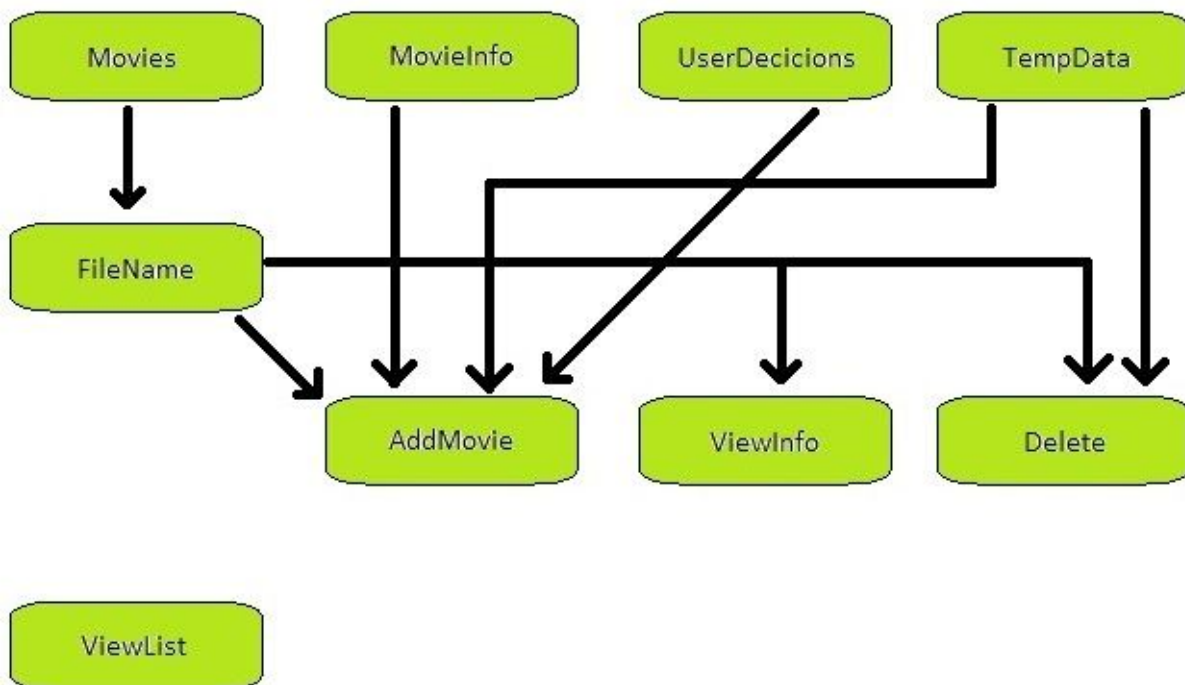
I/O Streams:

Used in getting input from user and managing file operations;

Exceptions:

Used for checking if a movie file already exists, and if so, throwing an appropriate message.

• Classes:



“Movies”: Basic class, contains only the member “Title”, for use later when creating name of a file and writing it down as, well, the title.

“MovieInfo”: Class containing all other information describing a movie, like release year, name of a actor, and a short description of a movie.

“UserDecicions”: Contains all variables associated with user input regarding movement across menu, choice of quantity of actors assigned, and the existance of a description.

“TempData”: Here lie all the variables used only when rewriting a file (in deletion process) and those associated with while loops when the release year or number of actors are assigned wrong, impossible values.

“FileName”: Contains a string “.txt”, and a method which utilizes said string to create a filename for file creation.

“AddMovie”: One of the 4 classes which make the program functional; it inherits many other variables from previous classes to create a file/movie entry in our database, checks if that movie already exists or not, and adds the title of a movie to the list of all available movies.

“ViewInfo”: Class containing a method which allows us to see information about a specific movie already existing in the database (if it doesn’t exist, there will be an output signaling that to us).

“Delete”: Contains a method for deletion of existing movie file, and then it rewrites the list of all movies, skipping the one we just deleted.

“ViewList”: Allows us to see the list of all existing movies, and then choose a title to use with “ViewInfo” class.

● Using the program:

The first thing we see, is the main menu:

```
Hello there! Welcome to the movie database project!

What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
```

Next, it would be good to add something since the database is empty, so we type ‘1’. First, the program asks us to provide the title of a movie, secondly we specify the release date, and if it is <1878, we need to correct that (in that case to 2013):

```
Hello there! Welcome to the movie database project!

What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
1
specify movie title: Batman
specify release year in [YYYY] format: 1212
Are you sure about that? First movie ever was created in 1878. Correct yourself:
2013
```

The next step is to specify how many actors we would like to assign to that movie. Once again, if the number is negative, it will ask us to correct that, and if it is =0, then the entry is left without actors:

```
How many actors would you like to assign to this movie?
-3
well, how do you suppose to add a negative number of actors? Correct yourself:
2
now, type in the names of chosen actors.
Christian Bale
Liam Neeson
```

Next we simply choose wheather we would like to add a short description or not. In our case we chose yes by typing '1' in the console, and after that, we were able to add a description of our choice. At the end the program will ask us if we want to run it again (back to main menu), or simply close it.

```
What about a short description of a movie? (0- no, 1- yes)
1
type in your description:
NANANANANANAAN

Do you want to start again? (y/n):_
```

Now we can double check if the file got created. We choose option '4' in main menu, and as we can see, "Batman" exists now:

```
'4'-view a list of all existing movies,
'5'-exit program.
4
Movies already in database:
Batman

Do you want to start again? (y/n):_
```

Armed with that knowledge, we can inspect that movie further, by choosing option '2' in menu, and typing "Batman" in the console:

```
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
2
specify movie title: Batman

Batman (2013)

Actors:

Christian Bale
Liam Neeson

Synopsis:
NANANANANANAAN

Do you want to start again? (y/n):
```

If we decide that we no longer need Batman, and Gotham is safe, we can delete that movie by choosing '3' in the menu and once again typing "Batman" in the console:

```
'3'-delete a movie entry,  
'4'-view a list of all existing movies,  
'5'-exit program.  
3  
specify movie title to delete: Batman  
file deleted successfully  
  
Do you want to start again? (y/n):
```

To check if that really happened, we can either type '4' again in the menu:

```
'4'-view a list of all existing movies,  
'5'-exit program.  
4  
Database is empty, you need to add some movies.  
  
Do you want to start again? (y/n):
```

Or we can type '2' and once again type "Batman" in the console:

```
'2'-view info about a specific, existing movie,  
'3'-delete a movie entry,  
'4'-view a list of all existing movies,  
'5'-exit program.  
2  
specify movie title: Batman  
  
Unable to get info, perhaps the archives are incomplete?  
  
Do you want to start again? (y/n):
```

● Additional tests:

Apart from the tests already shown in the previous section (like in case of the year<1878 or number of actors<0, and trying to view info about a nonexisting movie) we can test the program in many ways:

Typing something other than {1, 2, 3, 4, 5} in main menu (here the letter 'k'):

```
Hello there! Welcome to the movie database project!

What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
k
that's not an allowed choice, restart and try again!

Do you want to start again? (y/n):_
```

Adding a movie if it already exists:

```
What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
1
specify movie title: Batman
file already exists, you can view info about it by selecting '2'

Do you want to start again? (y/n):_
```

Trying to delete a movie that does not exist:

```
What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
3
specify movie title to delete: CPnajlepsze
error deleting the file: No such file or directory

Do you want to start again? (y/n):_
```

Or typing something other than 1 or 0 when asked for description choice:


```
What would you like to do?
'1'-add a movie,
'2'-view info about a specific, existing movie,
'3'-delete a movie entry,
'4'-view a list of all existing movies,
'5'-exit program.
1
specify movie title: CPnajlepsze
specify release year in [YYYY] format: 2020
How many actors would you like to assign to this movie?
1
now, type in the names of chosen actors.
AG
What about a short description of a movie? (0- no, 1- yes)
5
So uncivilized. If you can't read, you probably can't write, so no description!!!11!!11
Do you want to start again? (y/n):
```

● Conclusions:

I've managed to partially completed my task, even if it took all I've got. After countless hours of staring into the screen, with bleeding fingers, I managed to complete about 60% of initial tasks related to my project. I would like to say that I look forward to more programming in c or c++, but I don't. Maybe the future will bring a language that really suits me or is easier to understand.