Lab Writeup

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`shelf` class

Assuming the class is to be a `Stack`,

1. `add_movie`: post-increment `movie_count` and use its old value to index into the array to set the value.
2. `remove_movie`: pre-decrement `movie_count` and use its new value to index into the array to set the value.

Tests prior to error checking:

```
git:main@5> make
g++ --std=c++2b main.cpp Movie.cpp Show.cpp Shelf.cpp; ./a.out
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
1
Enter the title of the movie: first

Enter the description of the movie: f

Enter the rating of the movie: 1

--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
1
Enter the title of the movie: second

Enter the description of the movie: s

Enter the rating of the movie: 2

--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
3
2 movie(s) left in the shelf.
```

```
g++ --std=c++2b main.cpp Movie.cpp Show.cpp Shelf.cpp; ./a.out
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
1
Enter the title of the movie: first

Enter the description of the movie: f

Enter the rating of the movie: 5

--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
3
1 movie(s) left in the shelf.
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
2
Title: first
Description: f
Rating: 5
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
```

```
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
4
git:main@5>
```

Tests after error checking:

```
in.cpp Movie.cpp Show.cpp


ovie to the shelf
a movie from the shelf
many movies are on the sh




ovie to the shelf
a movie from the shelf
many movies are on the sh
```

```
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
3
10 movie(s) left in the shelf.
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
1
Enter the title of the movie: 1

Enter the description of the movie: 1

Enter the rating of the movie: 1

FullShelfError
--- OPTIONS ---
Press 1 to add a movie to the shelf
Press 2 to remove a movie from the shelf
Press 3 to see how many movies are on the shelf
Press 4 to quit
```

Trapping the error in `main` versus the calling function

Letting the exception be handled in `main` allows you to handle it however you wish every time it is invoked. If the exception was instead handled in the function, the corresponding `catch` would always run the same code — no matter the situation.