

**Extra Credit Test 2**  
**Fall 2021**  
**Individual Effort Only**

For this assignment, you will be creating two classes. The first should be Movie.

1. This class should have two constructors. One with no arguments and one with an argument for each of the instance variables.
  - a. Your no argument constructor should set values as follows:
    - i. title – Not given
    - ii. genre – None
    - iii. minutes = 0
2. You will need to create four instance variables.
  - a. String title
  - b. ArrayList<String> actors
  - c. String genre
  - d. int minutes
3. Validations
  - a. Title cannot be less than 4 characters or more than 50 characters.
  - b. Actors, must contain a first and last name. Actors should be entered last name, first name. It must have a , followed by a space. For example, Flintstone, Fred would be a valid name. Barney Rubble would be an invalid name.
  - c. Genre should use a case insensitive compare and must be one of the following:
    - i. Action
    - ii. Drama
    - iii. Romance
    - iv. Science Fiction
  - d. Minutes must be between 60 and 210, inclusive.
4. If any of the validations fail, the instance variable should not be set.
5. This class is not allowed to do any interaction with the user. No Scanner or println usage in this class.
6. The keyword static is not allowed in this class.
7. Validations must be enforced in this class.
8. Movie must have a toString that reports the details of the movie. You are not allowed to simply print the ArrayList but must print the contents.
9. An addActor method is required. This will add the actor passed into this method to the ArrayList.

In your MovieDriver class, you must have the following:

1. A method that allows the user to enter the title.
  - a. If the user enters a blank title or a title with only spaces, the program should not ask for any other inputs and should not display any more prompts but rather should proceed to the display of the entered movies.

- b. If the user enters an invalid title, this method should loop and require the user to either enter a blank title or a valid title.
  - c. Hint: Have your setters in Movie return an int so you can determine the entry.
  - d. You are not allowed to check for a valid title or a blank title in the driver class. You must use the return from the setter to determine what action needs to be taken.
  - e. This method should take a Movie object as its parameter.
- 2. A method that allows the user to enter actors.
  - a. This method should take the same Movie object passed to your method to get the title.
  - b. This method should not be called if the title was blank.
  - c. The method will ask users if they have another actor to enter.
  - d. The user is required to enter at least one actor.
  - e. This method must rely on the validations returned from Movie to determine whether to exit or not.
  - f. You will need to use the size of the ArrayList in the Movie object to determine if they have entered one actor.
- 3. A method to enter the genre. Again, must rely on the validations returned from Movie to determine a valid entry. The method must require a valid entry.
- 4. A method to enter the minutes. Must rely on validations from Movie. The method must require a valid entry.
- 5. A method to print the list of Movies once the user has entered all movies.
- 6. The keyword static can only be used once in this class.

Example run:

Please enter the title for the movie

ABC

Invalid movie title. It must be between 4 and 50 characters.

Please enter the title for the movie

Dune

Please enter the actor(s) for Dune

Chalamet, Timothee

Do you want to enter another actor?

Y

Please enter the actor(s) for Dune

Rebecca Fergusson

You must enter actors in the following format: last, first

Please enter the actor(s) for Dune

Fergusson, Rebecca

Do you want to enter another actor?

n

Please enter the genre for Dune

science

Genre must be Action, Drama, Romance or Science Fiction

Please enter the genre for Dune  
Science Fiction

Please enter the time for Dune  
225

The running time must be 60 minutes to 210 minutes.

Please enter the time for Dune  
175

Please enter the title for the movie  
Finch

Please enter the actor(s) for Finch  
Hanks, Tom

Do you want to enter another actor?  
n

Please enter the genre for Finch  
Dramatic

Genre must be Action, Drama, Romance or Science Fiction

Please enter the genre for Finch  
drama

Please enter the time for Finch  
174

Please enter the title for the movie

Title = Dune

Actors:

Chalamet, Timothee

Fergusson, Rebecca

Genre = Science Fiction

Minutes = 175

Title = Finch

Actors:

Hanks, Tom

Genre = drama

Minutes = 174

Rubric:

Coding standards: 2

Two working classes: 2

All validations in Movie: 5

Error messages: 2

Error enforcement: 3

Proper prompts and program flow: 3

Output: 3

Notes:

1. Code that does not compile will receive a grade of 0.
2. Use of static more than once will receive a deduction of 10 points to a low score of 0.
3. Output/input from the business class, Movie, will receive a deduction of 5 points.
4. Failure to close the Scanner will result in a 2 point deduction.