

MOVIE DATABASE

Objectives: Lists of Objects and basic Database concepts

Task: List movies by category.

What will the application do?

- The application stores a list of 10 movies and displays them by category.
- The user can enter any of the following categories to display the films in the list that match the category: animated, drama, horror, scifi.
- After the list is displayed, the user is asked if he or she wants to continue. If no, the program ends.

Build Specifications:

1. Build a Movie class with two member variables: title and category. Both of these should be strings. The class should also provide a constructor that accepts a title and category as parameters and uses the values passed in to initialize the member variables.
 - a. Class has member variables of the correct type—2 points total
 - b. Class has constructor—1 point
2. In your program.cs file, create a List<Movie> and store at least 10 movies there. You can use literals to construct the movies. Make sure to have a mixture of categories.
 - a. Program constructs list properly—1 point
 - b. Program puts at least 10 properly instantiated Movies into the List—1 point
3. When the user enters a category, the program should read through all of the movies in the List and display a line for any movie whose category matches the category entered by the user.
 - a. Program takes user input correctly—1 point
 - b. Program gives explicit feedback if user enters invalid category—1 point
 - c. Program iterates through List validly—1 point
 - d. Program only outputs if movie matches category—1 point
4. Program loops if user wants to continue.
 - a. Program loops back to ask category again based on user input—1 point

Hints:

- Don't overthink this! Think about how you would do this in real life if you work at a video store, and you have a stack of movies and somebody wants to see which movies in that stack belong to a particular category. When *one* customer asks for a list of movies, how many times do you loop through the stack of movies?

Extra Challenges:

- Standardize the category codes by displaying a menu of categories and having the user select the category by number rather than entering the name.

- Display the movies for the selected category in alphabetical order.
- Expand the information in your Movie class—run time in minutes, year released, etc. Display the additional information when listing movies.

Console Preview:

```
Welcome to the Movie List Application!

There are 15 movies in this list.
What category are you interested in? scifi
Star Wars
2001: A Space Odyssey
E.T. The Extra-terrestrial
A Clockwork Orange
Close Encounters of the Third Kind

Continue? (y/n): Y
What category are you interested in? ...
```

