

Type Object

Due May 11

A movie has a title, director, release date, genre and rating (NC-17, R, PG-13, PG, G). A movie may belong in more than one genre. Some movies may not be rated, international movies for example. The video store rents DVDs and Videotapes of movies. Movies are divided into four different categories: Recent releases, Normal, Oldies and Manager's Specials. Recent releases rent for \$5.00, are due after three days and the late fee is \$1.00 per day. Normal movies rent for \$3.00, are due after 7 days and the late fee is \$0.75 per day. Oldies rent for \$2.00, are due after 7 days, and the late fee is \$0.50 per day. Manager's special rental price, rental period and late fee are determined by the manager.

Modify your inventory class from assignment 3 to support the above information using the type object pattern. Do not include the proxy, command or the memento in this assignment. From assignment 3 your inventory class needs to

- Add new movies
- Add new copies of existing movies
- Change the price of a movie in a given category
- Find the price and/or quantity of a movie by either name or id

In addition you need to support

- Setting the terms of manager' special
- Change a movie from one category to another
- Find all movies of a given category
- Find all DVDs of a given category
- Finding all movies by a given director
- Renting movies
- Compute the late fee for a rental

Grading

Item	Percent of Grade
Working Code	20%
Unit Tests	10%
Proper implementation of Patterns	60%
Quality of Code	10%