

Homework 5

REFACTORING TO DESIGN PATTERNS

In this homework, you are required to modify your homework 3 on the movie rental application.

- 1) You are required to modify the code to make the function of computing frequent rental points into a strategy design pattern (That is, you will have strategy classes to compute frequent rental points).
- 2) After create a strategy class for the current strategy to compute frequent rental points, you are required to add two new strategies:
 - a. The first new frequent rental point computation gives double regular points to any customer who is renting more than two types of categories
 - b. The first new frequent rental point computation gives double regular points to any customer who is 18-22 and renting one or multiple new release movies.
- 3) Please submit your resulting code and a short Word document explaining the rationale behind your code.
- 4) Bonus (20 points): Please modify your code to add an additional functionality as follows. In a transaction, if a customer rents 3-5 items, the price of all additional items that he purchases in the same transaction will be 80% of the original prices. But if more than 5 items were rented, the price of the item in purchase will be reduced in half. You need to use design pattern for this task.