ComS 339

Homework 3

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In Assignment 3, I rewrite the code based on hw2’s code. In this refactoring, we need to fulfill 3 things:

1. The code needs to support different type of items, I gave the name “Genre”, under each Genre, and each movie has a category. To keep the extensibility, I used String type instead of Static int type for category.
2. This code need support not only rental but also selling items. Thus we need separate calculation for price.
3. We need provide basic functions to support renting and selling transaction.

Regarding to first requirement – different type of items and categories, I create an abstract class Genre, and each Genre (Movie, Music CDs …) extend from this super class. Also I used a identifier getGenreName() to differentiate them.

Under the hierarchy of Genre, each genre has many categories, here I used **String category** to indicate. (Maybe use static int final is an option, but since I we do not have completed list of these categories, I used String type for right now).

In Movie class, it embodied Genre instance, we can retrieve any data about Genre and Category from this instance.

For selling price and transaction, I modified the method in price and all subclasses, instead of getPrice(), I added getRentalPrice() and getSellingPrice(), any additional implementation of price calculation could go in here.