Name: _____ CM: _____ Grade: _____ / 25

CSSE374: Reading Quiz, 12/19/2011. If you need more room I have scratch paper you may attach.

1) (4 pt) What does SRP stand for?

2) (4 pt) Briefly, what does SRP mean? (One sentence is fine. Haiku format also accepted):

3) (10 pt) Given the use cases from the homework (reverse for more info) please draw a simple Use Case Diagram. Assume all cases are "in store". You may use the use case abbreviation (eg: UC2, NUC1) to represent the use case. **Note: Don't need to include outside systems.**

UC1: Customer rents videos
UC3: Customer returns videos to store
UC4: Videos returned to stock
NUC1: Customer owes late fee

4) (7 pt) Draw a class diagram for the following Java definitions (you may abbreviate IE: BaseUser -> BU):

```
public class BaseUser {
      protected IUtility _utility;
      public void DoIt(double stuff) {…}
}
public class UserA extends BaseUser {…}
public class UserB extends BaseUser {…}
public interface IUtility {…}
public class Utility implements IUtility {…}
```

Shortened Use Cases (from homework):

UC1: Customer rents videos

Preconditions: Customer has a membership, has selected videos they want to rent, and made the system aware of their choices.

Actor: Customer (if self-service or remote), or store associate (if in a store).

Main flow:

1. Actor indicates to rent first item (e.g., clicking "rent" on a networked device, or scanning it physically in a store).
2. System verifies immediate availability, waits for actor to make next option.
3. Actor indicates they are done selecting.
4. System shows total, prompts for payment.
5. Actor selects method of payment, entering additional data if needed (e.g., credit card number).
6. System verifies the payment has gone through, schedules the goods for rental (e.g., sets up a window to click on to view the video remotely, or tells the store clerk where to find the DVD).

Postcondition: Rental transaction is complete.

UC3: Customer returns videos to store

Preconditions: Customer has a membership, and Video(s) rented within last 30 days (assumption that after that, the customer has been billed).

Actors: Customer (if self-service or remote), or store associate (if in a store).

Main flow:

1. Customer provides video(s) for return.
2. System provides indicator of each video returned, and any accumulated late fees.
3. System acknowledges the return of all the videos returned this time and provides a receipt. A "thank you" message concludes the transaction.

Postconditions: Return transaction recorded, and customer gets receipt. Video return transaction complete.

UC4: Videos returned to stock

Preconditions: Returned videos have accumulated behind counter at front of store.

Actors: Store associate.

Main flow:

1. Actor asks system for map of how to return videos to proper places in store.
2. System prints a map for each video returned, showing path to follow and shelf location of each video.
3. Actor takes map and box of videos around the store, returning to the places shown, following the map.
4. Actor returns to tell system that this was completed as directed.

Postconditions: Videos are back in proper places for re-rental.

NUC1: Customer owes late fee

Preconditions: Customer has a late fee balance because they kept videos too long.

Actors: Customer, store associate, store manager

Description: Customer may pay balance with store associate. If Customer contests fee, store manager may override and forgive the fee.

NOTE: this is a lousy use case description. It is really two use cases.