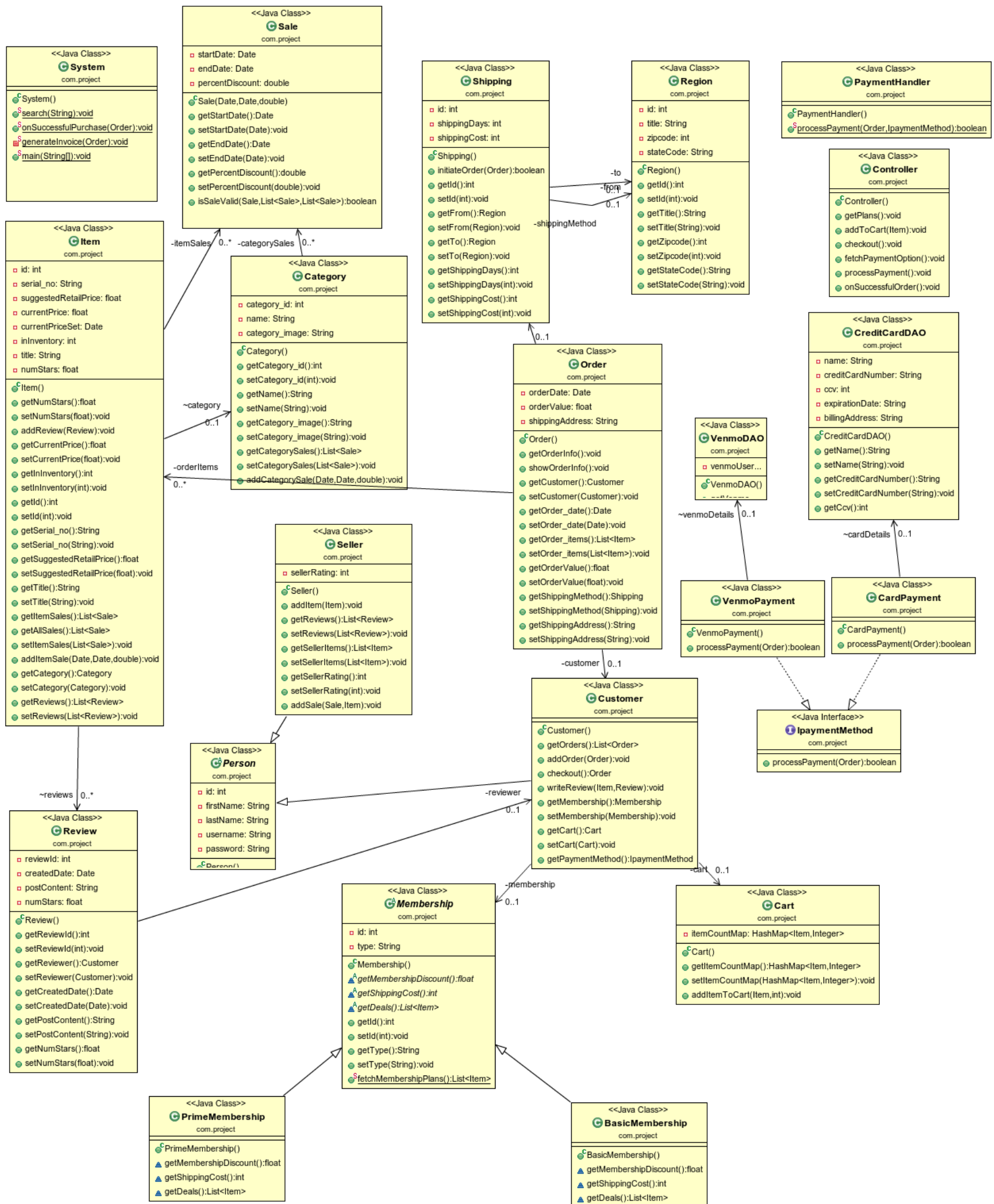


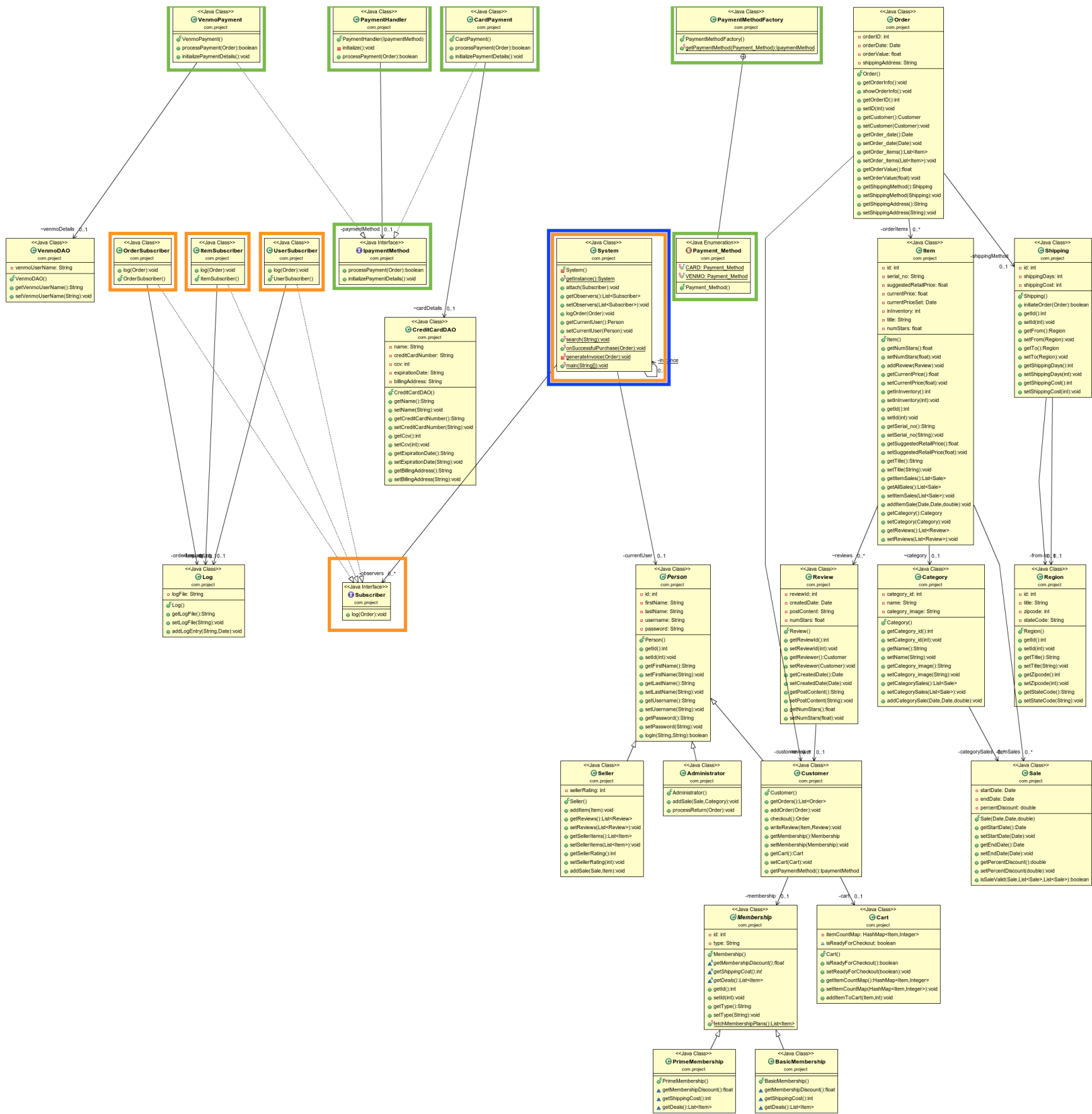
Team:
Rohit Gupta
Corin Sandford
Mike Gore

Title:
Marketplace

Part 2 Class Diagram:



Part 3 New Class Diagram:



New Class Diagram Legend:

- Orange boxes: Denote classes in **Observer** design pattern (used for logging).
- Green boxes: Denote classes in **Strategy** design pattern (used for payment).
- Blue box: Denotes class (System) in **Singleton** design pattern.

Description of Changes:

- Changed payment handling to employ **Strategy** design pattern.
 - Added **PaymentMethodFactory** class. `initializePaymentDetails()` method added to **PaymentMethod** interface and its implementing classes, **VenmoPayment** and **CardPayment**. **PaymentHandler** receives new `initialize()` method, and Strategy design pattern is implemented in **PaymentHandler**, which can now call all methods on a generic `paymentMethod` member variable without any if statements.
- Added logging, which employs **Observer** design pattern, with **System** class as publisher and logging classes as subscribers.
 - When an Order is successfully completed, the **System** pushes this to classes that log for Orders, Items, and Users. These classes (**OrderSubscriber**, **ItemSubscriber**, and **UserSubscriber**) implement from an abstract **Subscriber** class. (These classes also inherit from the **Log** class, and each logs certain aspects of an Order in its own way.)
- Changed System class to employ **Singleton** design pattern.
 - System** class now includes a `currentUser` (type **Person**).
- Controller** class on original diagram was subsumed into **System** on new diagram, and some extraneous methods were removed.
- Administrator** class was added to diagram.
- Added needed methods to other classes.