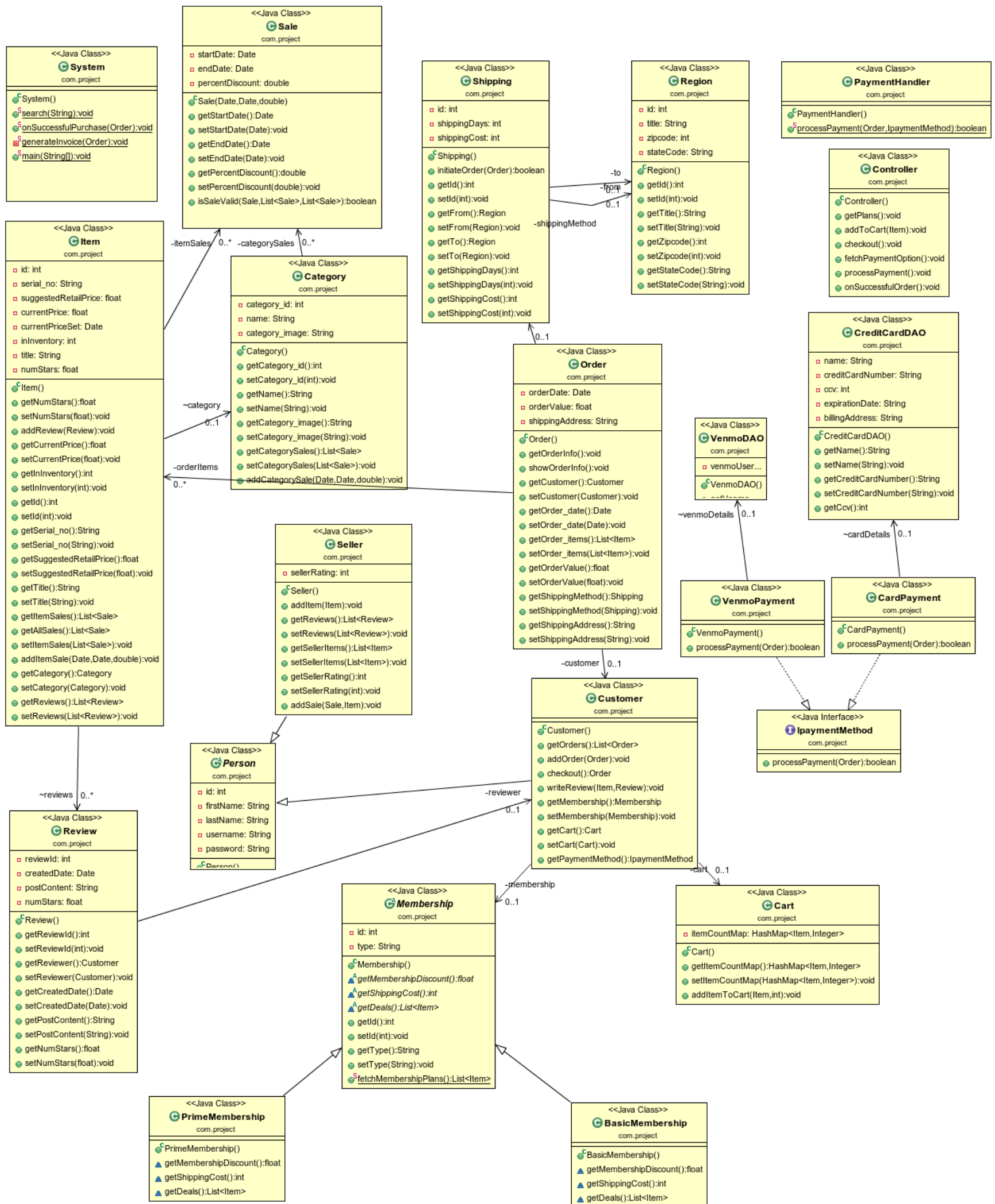


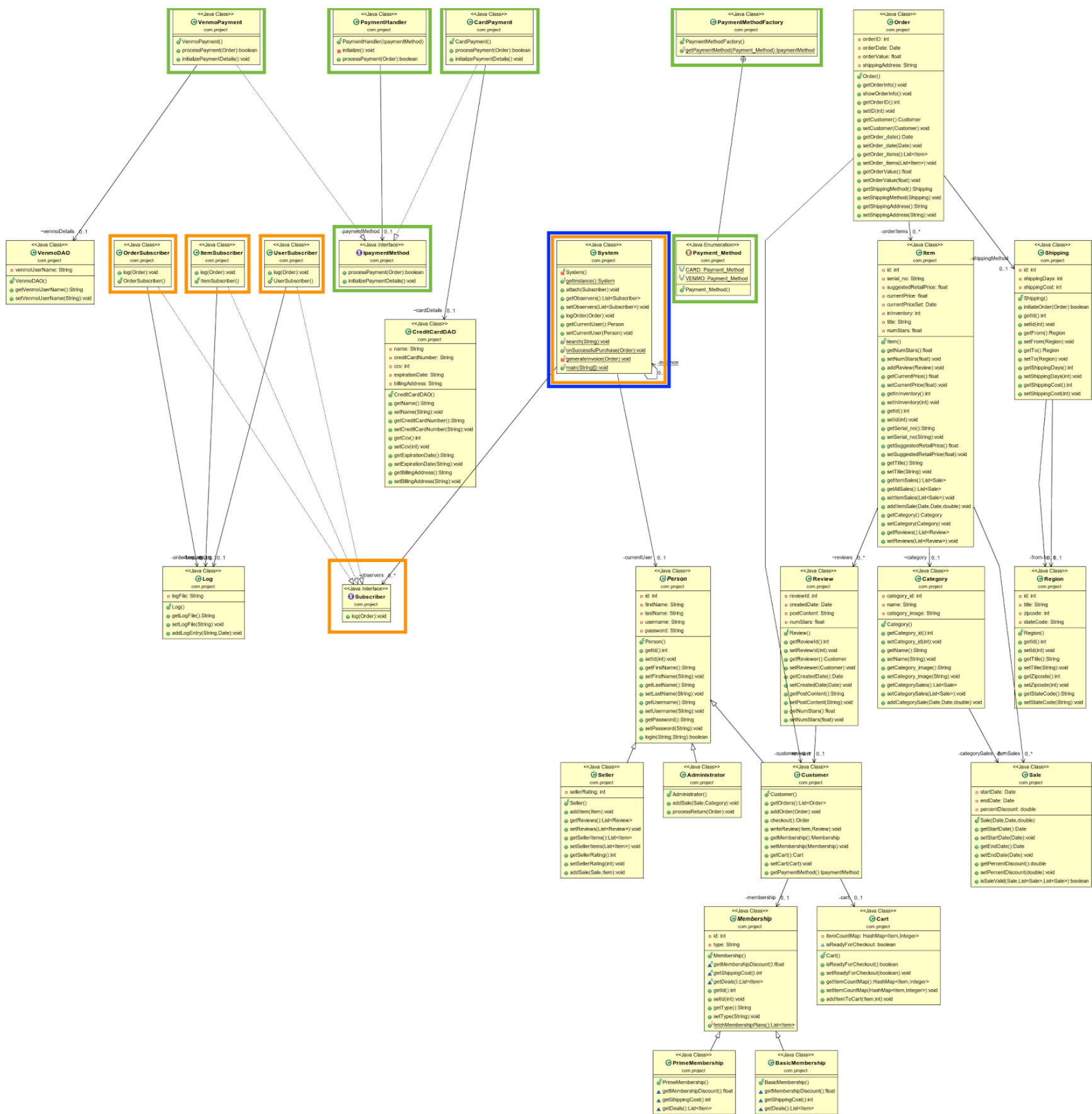
Team:
Rohit Gupta
Corin Sandford
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Title:
Marketplace

Part 2 Class Diagram:



Part 3 New Class Diagram:



- 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.
 - Added `initializePaymentDetails()` method to **IPaymentMethod** interface and its implementing classes, **VenmoPayment** and **CardPayment**.
 - This allows us to use the Strategy pattern in **PaymentHandler**, which has a new `initialize()` method. When **PaymentHandler** calls `initialize`, it decides which type of **IPaymentMethod** to create based on a user's desired payment method.
- Added logging employing the **Observer** design pattern.
 - When an **Order** is successfully completed, the **System** publishes the order to observers.
 - The observers are classes called **OrderSubscriber**, **ItemSubscriber**, and **UserSubscriber**, which implement an abstract Observer class called **Subscriber**.
 - Once **System** publishes, these observers are notified to update their own state. In this case, each performs a different type of order logging.
- 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.