

Team:

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Title:

Marketplace

Project Summary:

In this project, we are designing a online marketplace (similar to Amazon) where sellers can list their products, and customers can view, buy, rate and review products. Administrators will also be able to set site or department-wide sales, and handle customer service items like returns and delivery updates.

Data Storage:

We plan to use MySQL database to store our data in the backend. So, our schema will be a traditional relational database schema where data will be stored in tables which will have relationships through foreign keys. Some of possible tables are as follows: Customer, Seller, Item, Reviews, Region, Payment Methods, and Membership Plans.

Project Requirements:

Non functional requirements				
ID	Requirement	Topic Area	Actor	Priority
NFR-01	User's password must be at least 8 characters long, and must contain a number, special character and an upper case character.	Security	System	Critical
NFR-02	The home-screen should be loaded in no more than 2 seconds in all load conditions.	Performance	System	Critical

NFR-03	The respective stakeholders should receive email notifications when a back-end server machine goes down or is unresponsive.	Reliability	System	High
NFR-04	The respective stakeholders should receive a detailed report about the health of backend-servers every day including disk usage, cpu usage, tcp traffic charts etc. .	Reliability	System	High

Business Requirements				
ID	Requirement	Topic Area	Actor	Priority
BR-01	Shipping options should be available for all of the 50 states across the country.	Order Shipment	Order Fulfilment division	Critical

BR-02	For orders above \$1,500, Allow customers to have “Payment On Delivery” option where users make the payment after they have been handed over their shipment.	Payment processing	Core Business division	Medium
BR-03	Sellers below 4 overall rating in the last six month should be dropped from the marketplace.	Sellers Marketplace	3rd Party Sellers division	High
BR-04	Between 9-5, user should have an option to live chat a customer service representative.	Customer Service	Customer Service Division	High

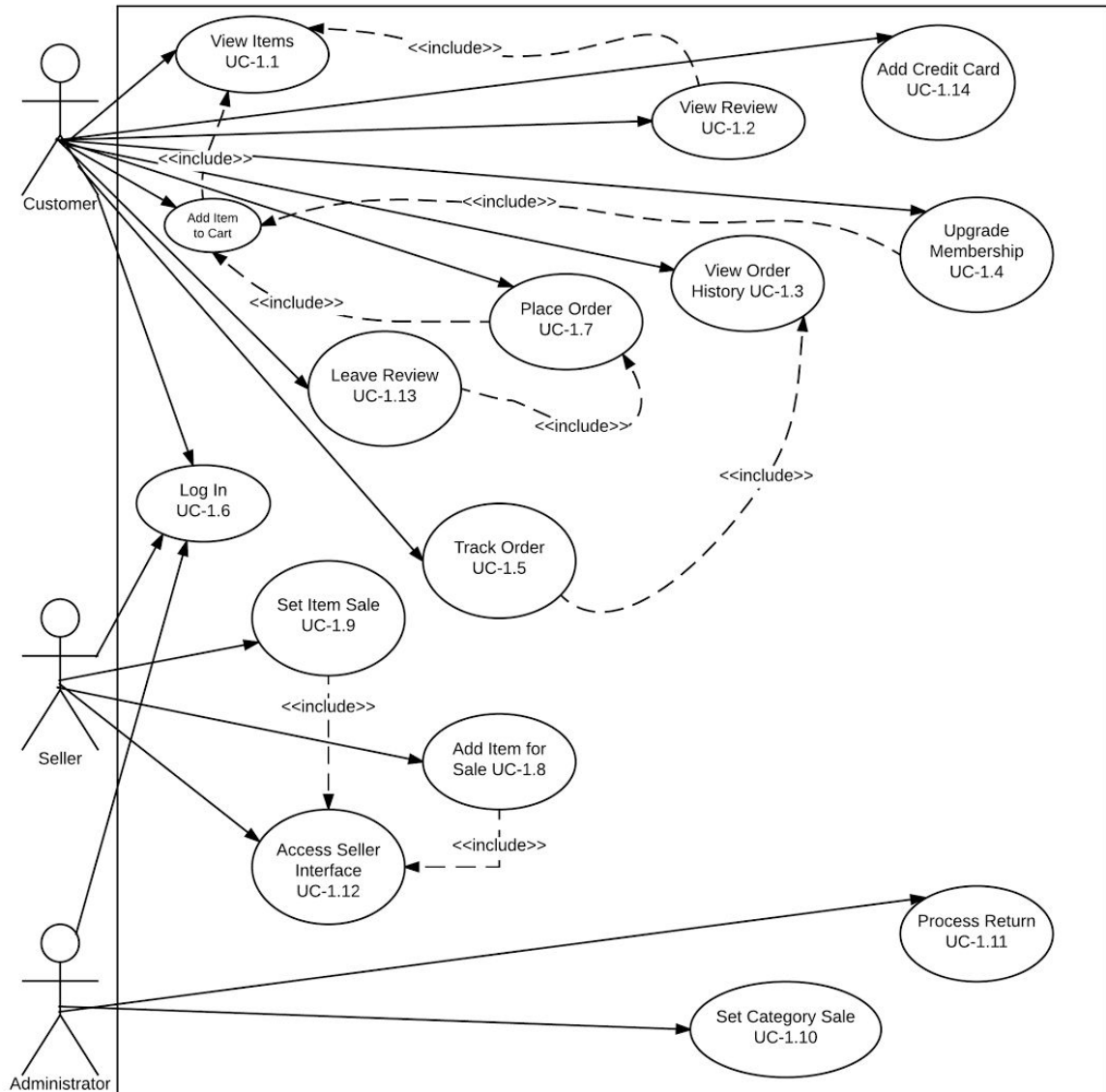
User Requirements				
ID	Requirement	Topic Area	Actor	Priority
UR-01	As a customer, I want to be able to search for an item and view its specifications and details.	Search Functionality	Customer	Critical

UR-02	As a customer, I want to be able to review a product.	Review	Customer	High
UR-03	As a customer, I want to be able to view my purchase history on the website.	User Records	Customer	Medium
UR-04	As a customer, I want to be able to change the membership status on the website from “basic” to “prime” and vice-versa.	Customer Membership	Customer	High
UR-05	As a customer, I want to be able to track the order I have placed on the website.	Order Tracking	Customer	High
UR-06	As a customer, I want to be able to log in to my account.	User Records	Customer	Critical
UR-07	As a customer, I want to be able to make a purchase.	Sales	Customer	Critical
UR-08	As a seller, I want to be able to put my product up for sale.	Sales	Seller	Critical

UR-09	As a seller, I want to be able to set a temporary sales price for one of my items.	Discounts	Seller	High
UR-10	As an administrator, I would like to be able to set temporary sales prices for a category of items on our site.	Discounts	Administrator	Medium
UR-11	As a site administrator, I would like to be able to process returns that users ship back to us.	Returns	Administrator	Medium
UR-12	As a seller, I want to be able to access the Seller Interface page to manage my storefront.	Seller Storefront	Seller	Critical
UR-13	As a customer, I want to add my credit card information to my account.	User Records	Customer	Critical

Use Case Diagrams:

31 Marketplace Use Case Diagram



Note that every use case requires “Log In”, but we removed those arrows for clarity.

UI Mockups:

← → ↺ ⌂

http://www.marketplace.com/products/id=00

UI Mockup Product Page

FileEditViewHelp

Marketplace

My Account

Log In / Out

Cart

Orders

Seller Interface

Account Settings

Product

Seller

Product ID #

Seller ID #

Product Image

Light Product Description

\$Price.00

Inventory Information

Quantity1

Add To Cart

Average Reviews☆☆☆☆☆

> Product

> Highlights

> And

> Facts

Detailed Product Description

Product Specifications (Shipping Information)

Weight

Size

What's In The Box

Estimated Ship Date

Estimated Shipping Time

Recommendations Based on This Product

Recommended Product

View Product

Recommended Product

View Product

View More

Reviews

Average Reviews☆☆☆☆☆

5-Star Reviews

4-Star Reviews

3-Star Reviews

2-Star Reviews

1-Star Reviews

Review Statistics

Total Reviews

Over 4-Stars

Veteran Reviews

☆☆☆☆☆

Reviewer

Review

☆☆☆☆☆

Reviewer

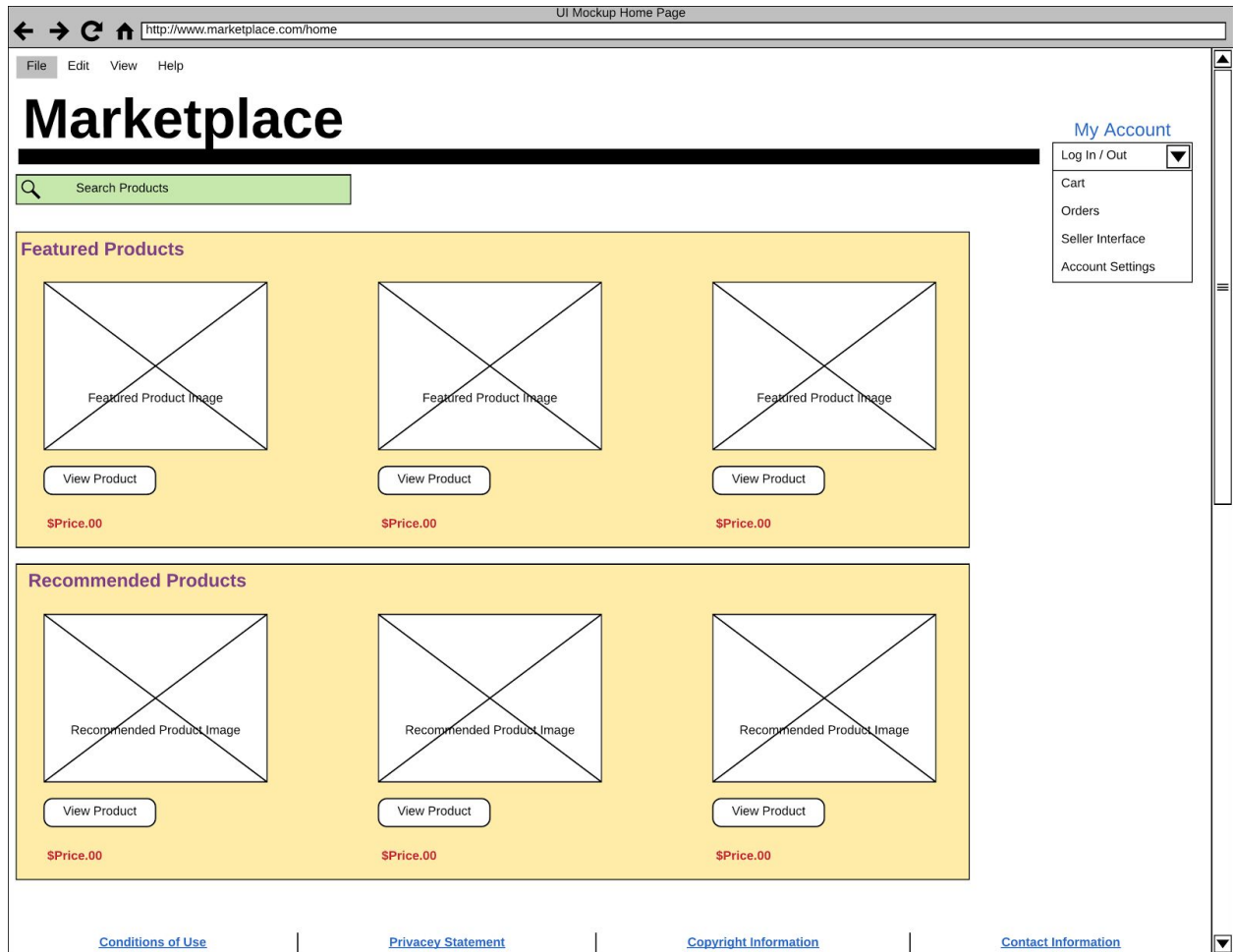
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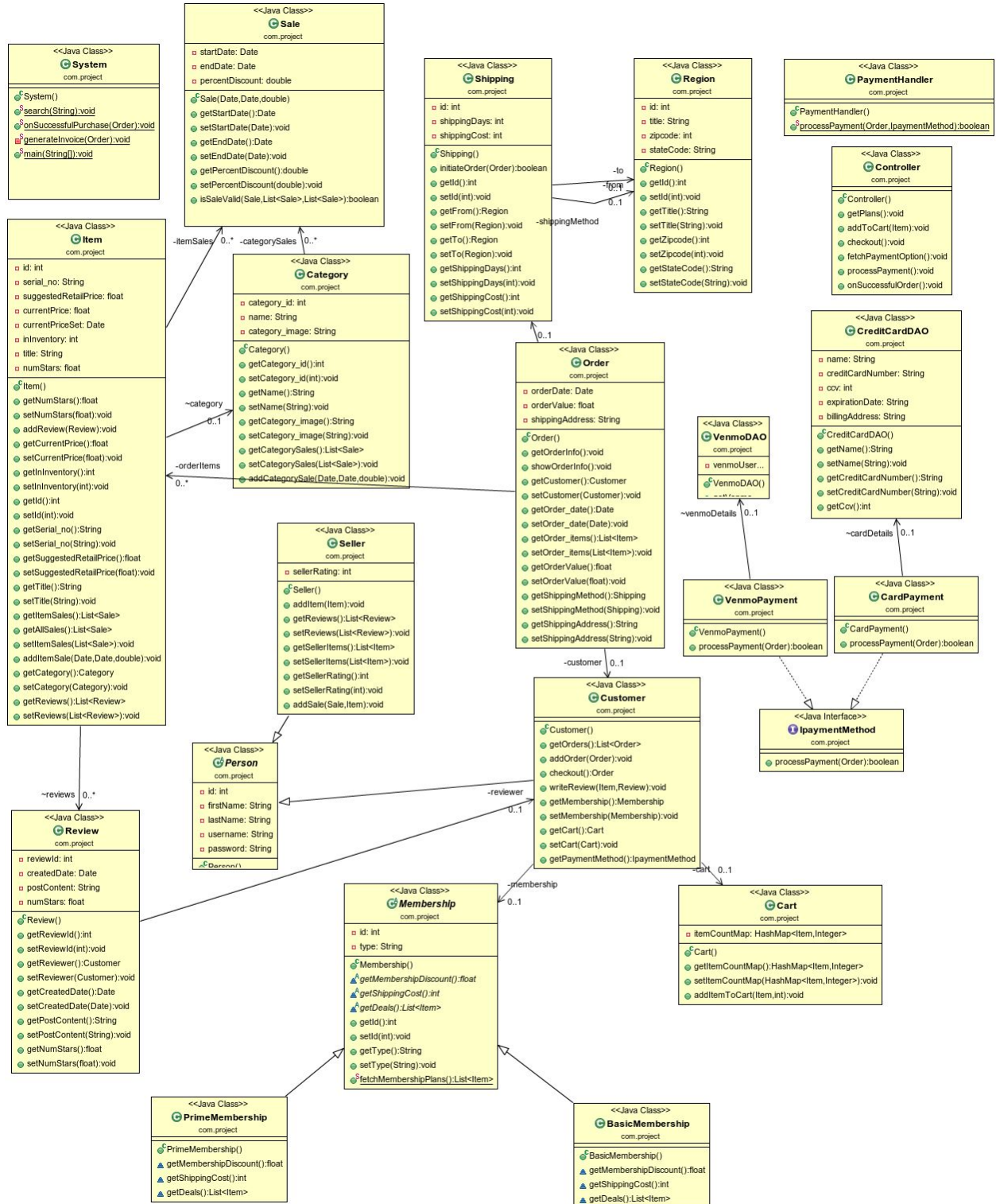


Class Diagram:

Web Link:

<https://drive.google.com/file/d/0B6TRtawf1ABycHNycFBCb3RZdGc/view?usp=sharing>

Please note that 3 classes **System**, **PaymentHandler**, **Controller** are stand-alone classes as depicted in the class diagram.



Legend:

Red squares: private members

Green circles: public methods

Blue triangle with A: abstract method

Blue triangle: overridden method