

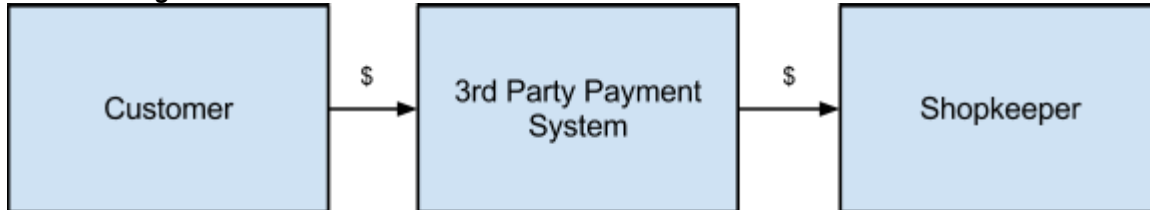
## Problem Analysis PS2

### Overview

#### *Purpose and goals*

The goal of this product is to create an intuitive interface for customers and sellers to interact. This product will allow customers to easily browse products from multiple vendors. It will also be easy to shopkeepers to set up and connect with customers. Existing solutions don't allow for a dialogue between customers and store owners about current and future products, so this product will lower the barrier separating the two parties.

#### *Context diagram*

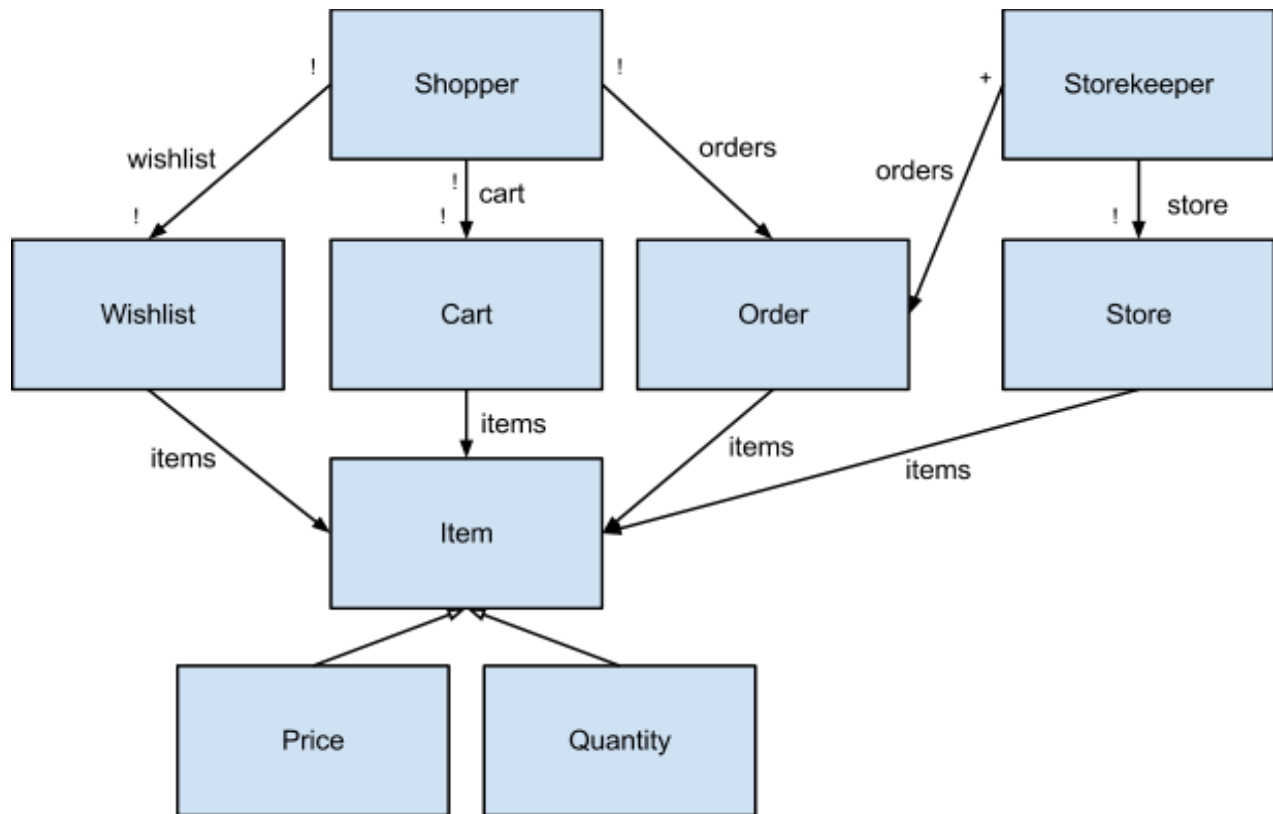


#### *Key features*

- Shopping cart and wishlist: allow customer to add existing items to their cart/wishlist, or create a non-existing item and add it to their wishlist
- Orders: will be seamless from a shopper perspective, as all items purchased at one time will be in one order; meanwhile, the shopkeeper will only be responsible for items in the order from their shop
- Individual storefronts: allow for shopkeepers to distinguish themselves and adjust prices of goods

### Domain

#### *Object model*



### Event model

Storekeeper Login  
 Storekeeper Logout  
 Storekeeper Add Item  
 Storekeeper Edit Item: edit the price or quantity of an item  
 Storekeeper Fulfill Order: send items of customer order and receive payment  
 Shopper Login: not required  
 Shopper Logout  
 Shopper Add to Cart: reserve item from particular store  
 Shopper Add to Wishlist  
 Shopper Place Order: can only be placed if items are in cart

ShoppingCart ::= (StorekeeperStart) (Shopper)+ (StorekeeperEnd)+  
 StorekeeperStart ::= Login+ (AddItem EditItem)\* Logout\*  
 Shopper ::= Login\* AddtoWishlist\* (AddtoCart\* | PlaceOrder)\* Logout\*  
 StorekeeperEnd ::= Login+ FulfillOrder Logout\*

### Behavior

#### Feature descriptions

- Shopping cart: shoppers can add items from any store into one cart and proceed to checkout normally
- Wishlist: shoppers add both existing items or create items they would like to see in the future
- Shopkeeper Homepage: can easily view pending orders, current merchandise, and add new items
- Shopper Homepage: show all merchandise from all shopkeepers organized by stores

- Checkout: redirect to third party vendor for payment processing

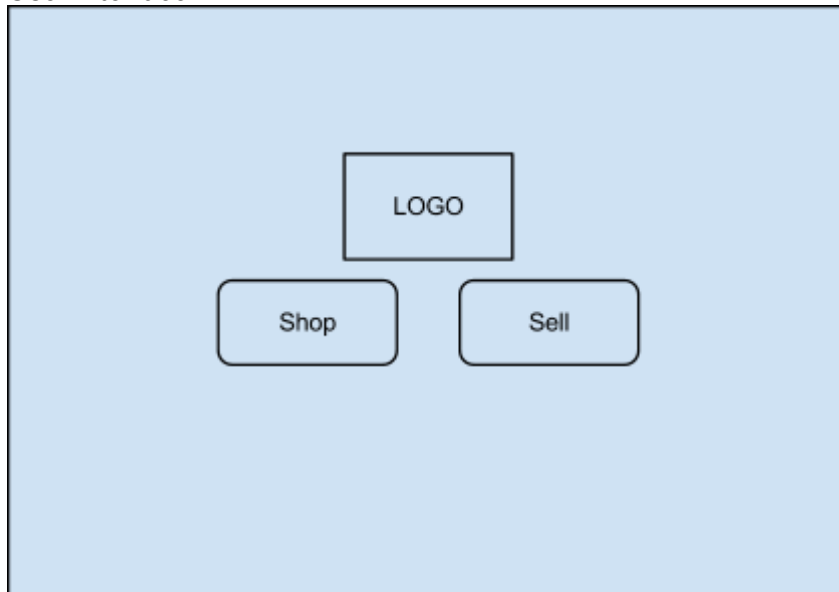
#### *Security concerns*

The most sensitive part of this project is the payment procedure. In this case, all payments will be handled by a third party (think PayPal), which eliminates this risk.

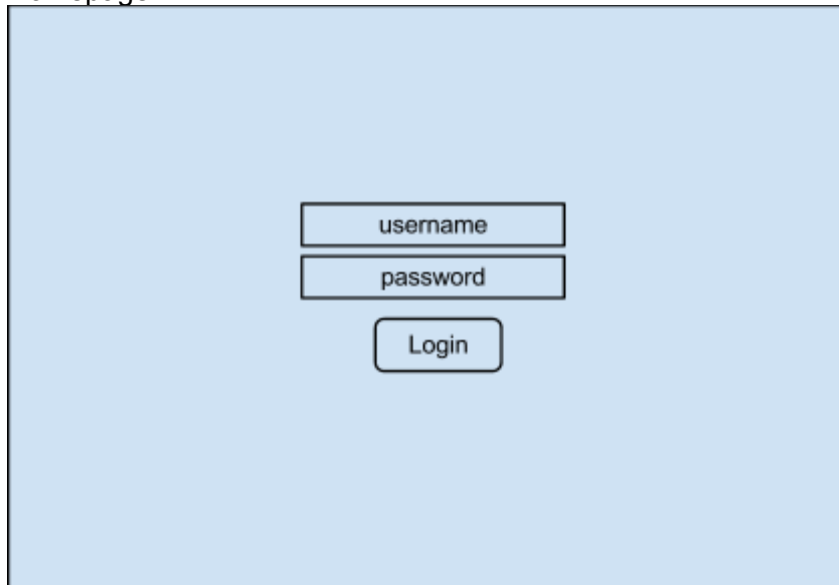
#### *Operations*

- Add to cart: reserves item and decrements quantity available
- Create order: notifies shopkeeper of new customer order
- Fulfill order: notifies shopper of completed order
- Create new wishlist item: notifies select shopkeepers of new item suggestions

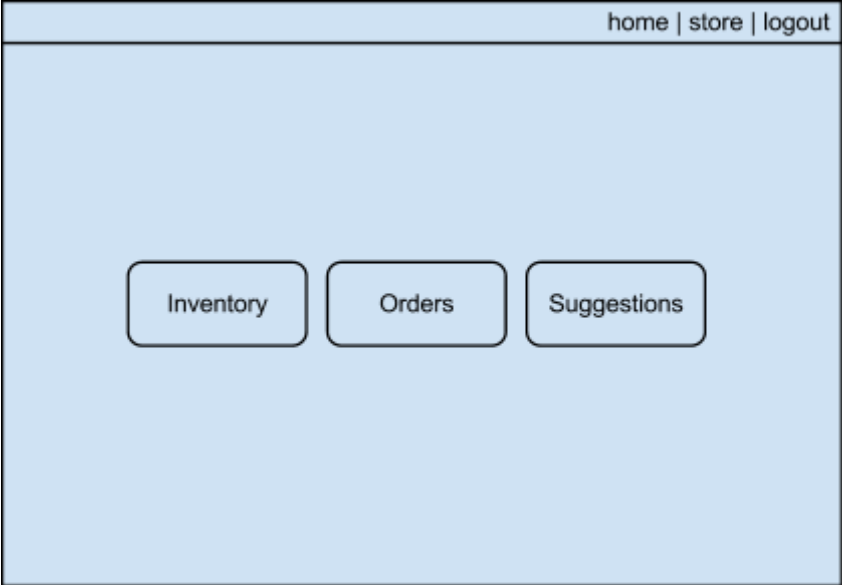
#### *User interface*



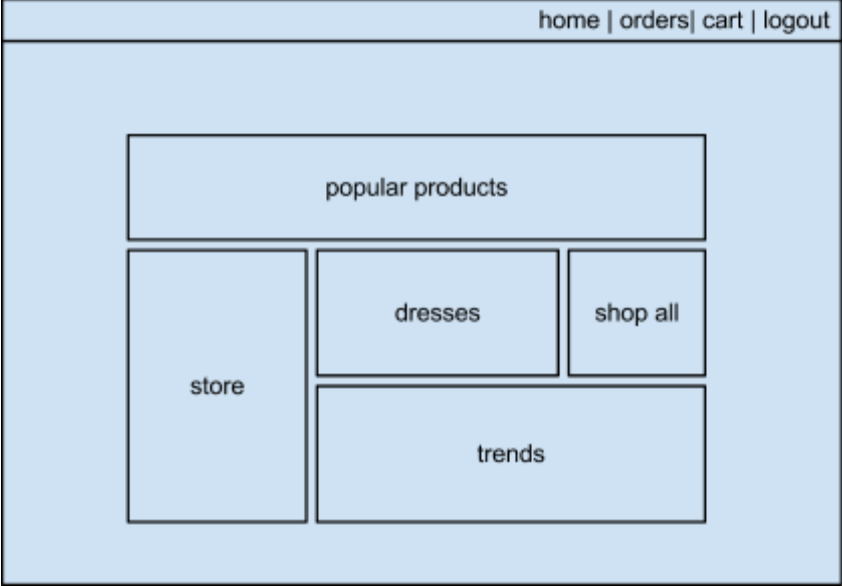
#### *Homepage*



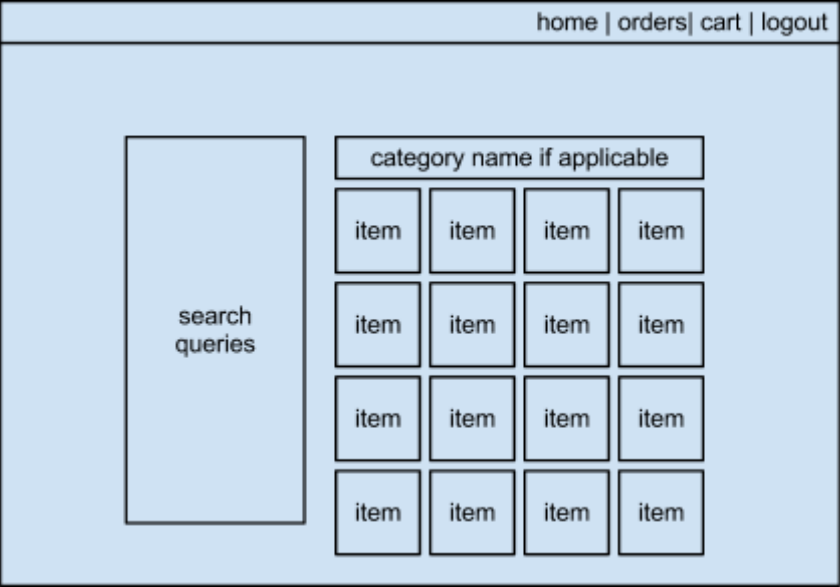
#### *Login page*



Storekeeper landing page



Shopper landing page



Shopping index page