

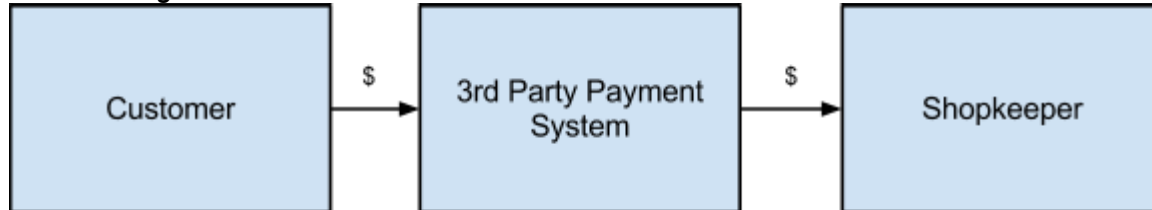
Problem Analysis PS2

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

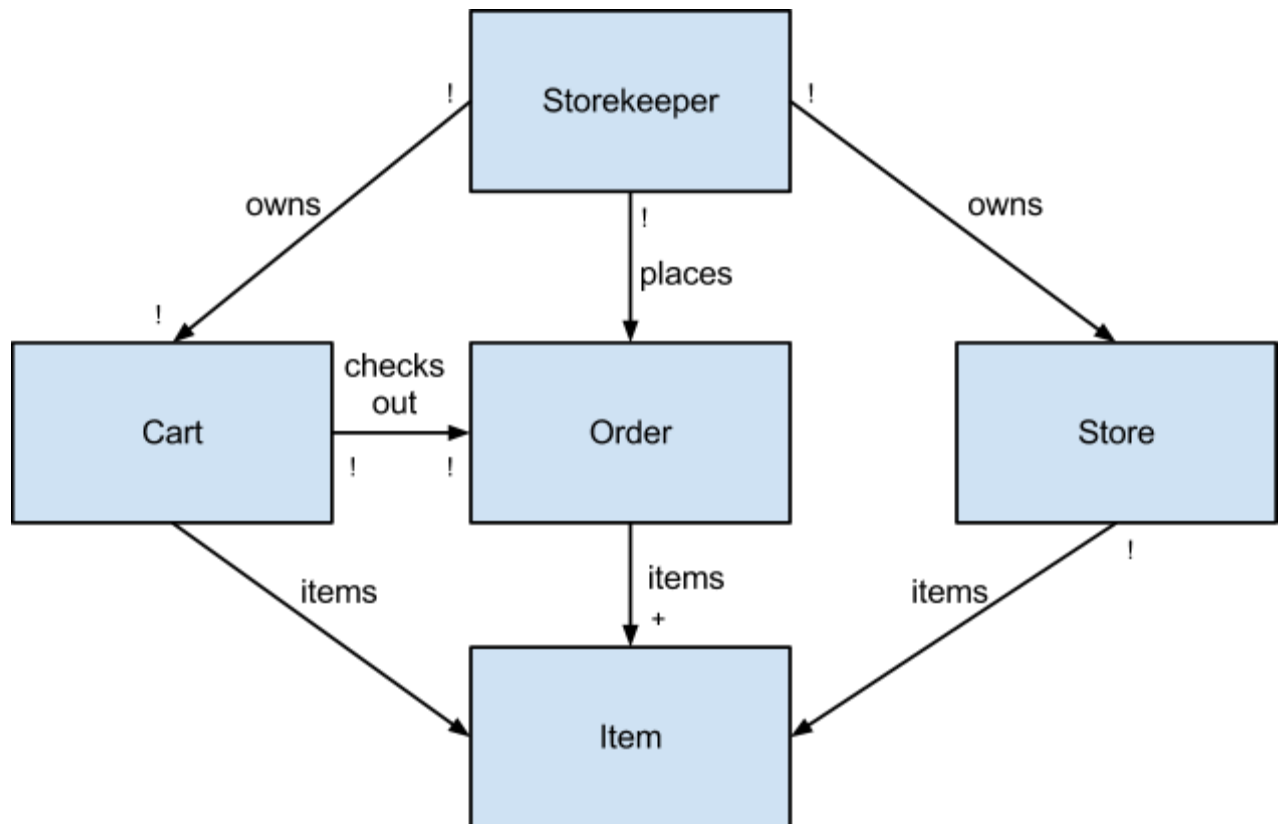


Key features

- Shopping cart: allow customer to add existing items to their cart
- 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: view items of customer order

Shopper Login: not required

Shopper Logout

Shopper Add to Cart: reserve item from particular store

Shopper Place Order: can only be placed if items are in cart

ShoppingCart ::= (StorekeeperStart) (Shopper)+ (StorekeeperEnd)+

StorekeeperStart ::= Login+ (AddItem EditItem)* Logout*

Shopper ::= Login* (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

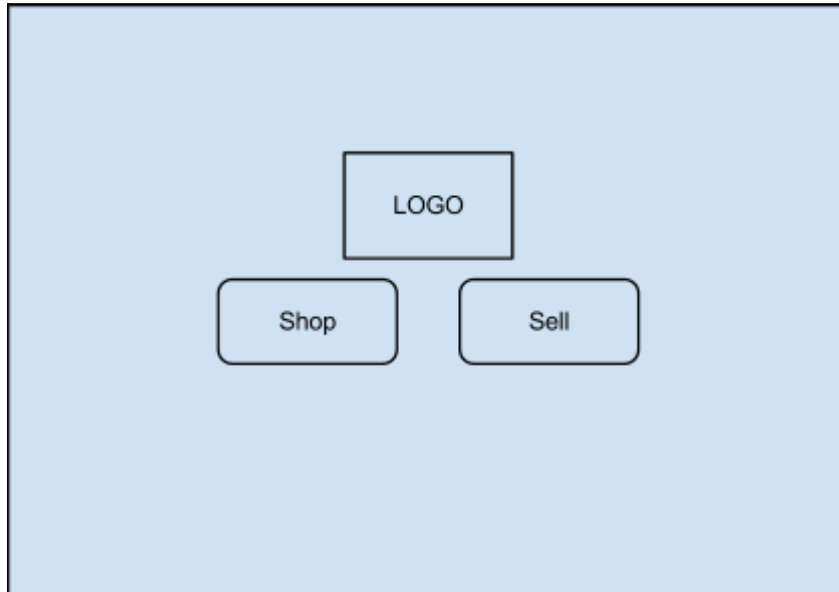
Security concerns

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

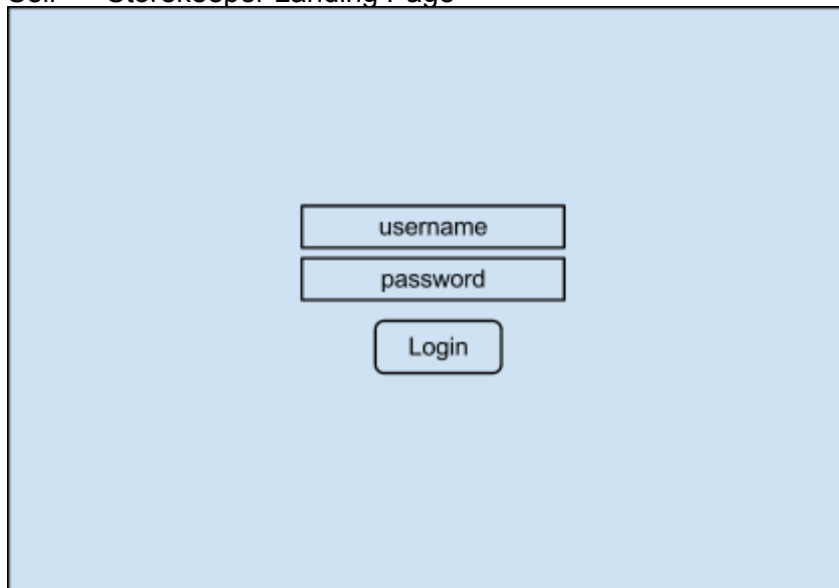
User interface



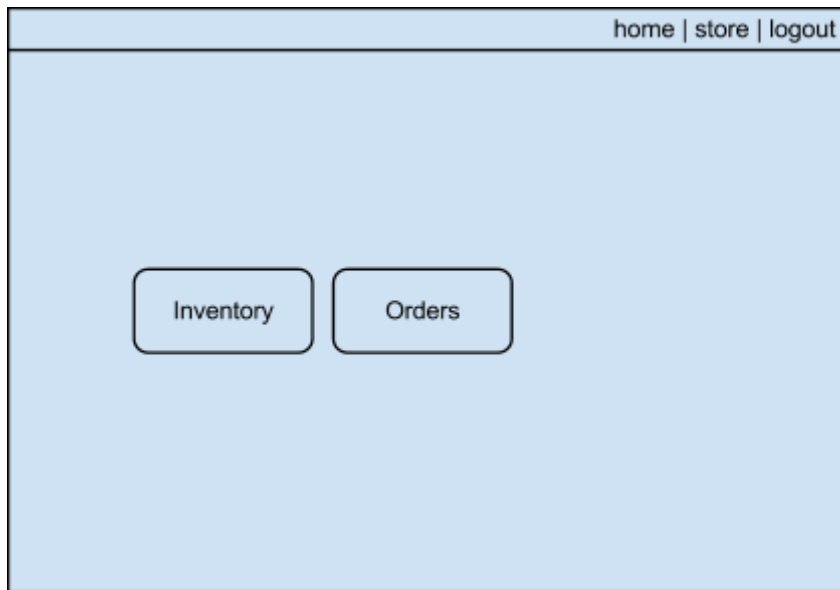
Homepage

Shop => Shopper Landing Page

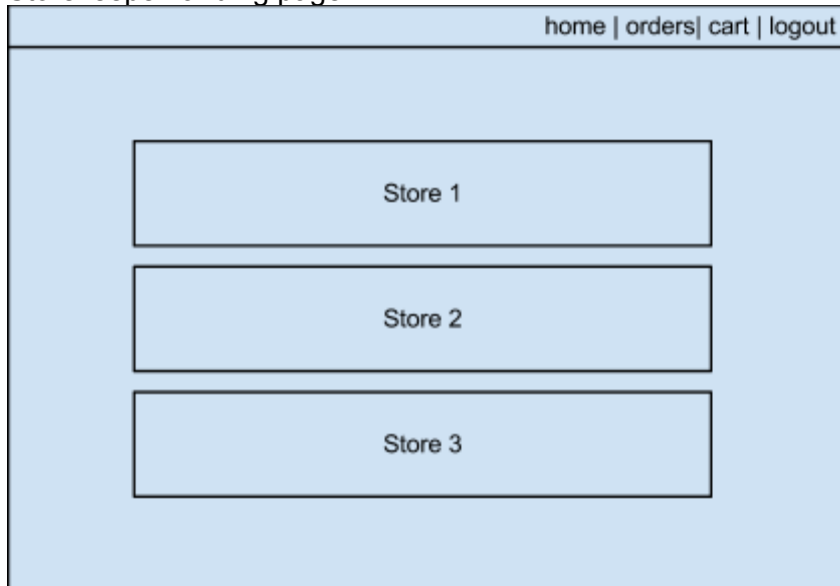
Sell => Storekeeper Landing Page



Login page

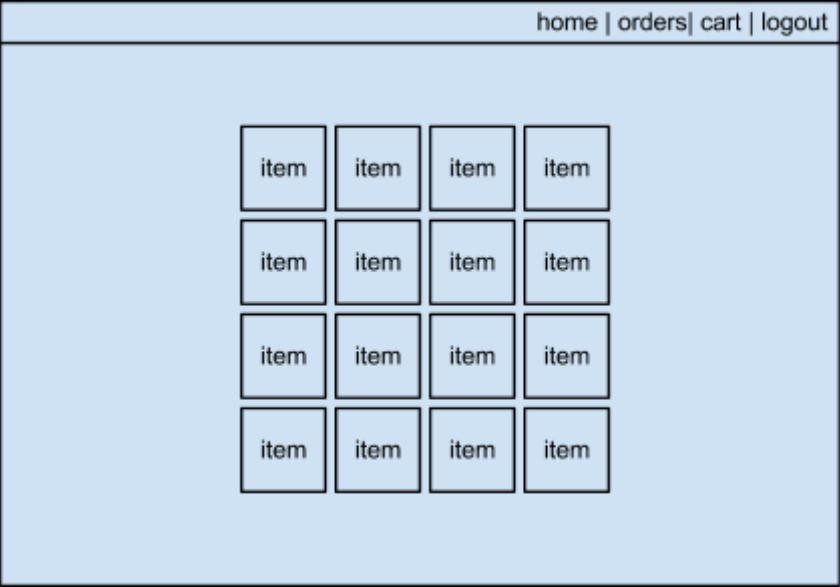


Storekeeper landing page



Shopper landing page

Any button in the middle screen => Shopping index page with appropriate filters



Shopping index page