

# **ECE568: Engineering Robust Server Software**

## **Mini-Amazon: Product Differentiation**

### **General Design of Website**

- Well-designed user interface: We design a beautiful and user-friendly user interface to welcome all the clients of our Amazon. It can provide good shopping experience to users.
- Website safety: For the whole website, if the user isn't logged in, s/he will not have access to any functional pages, this protects the safety of data.

### **Login/Logout:**

User can login or logout to Amazon.

### **Registration:**

If the user doesn't have an Amazon account before, he/she should register first to create account.

### **Registration Email:**

Users will receive an email after s/he is successfully registered.

### **Purchase Email:**

Users will receive notification emails after an order is successfully placed.

### **User Profile:**

- Whenever a user is successfully registered, his/her profile is automatically created and can be seen on the Django admin page, no need to generate one manually.
- Users can edit their profiles fields like email address and can upload their personal image icon.

### **Shopping Cart:**

Users can add the selected items into shopping cart. After that they can either continue to checkout or just browse other features of our website and then come back to shopping cart to proceed operations like purchasing or deleting item.

### **List Products for Shopping:**

All available products on our site are listed for customers to choose so that they can at least have a clue of what we have right now.

### **Product Stock Notification:**

If the product is in low stock, Amazon will notify the user the product is in low stock.

If the product is new, Amazon will notify users that the product is creating.

### **Order History:**

Users can view the information of orders in their order history.

### **Order Tracking:**

Users can track the status by both specifying tracking number and refreshing the order history page.

### **Replenishment Strategy:**

If our website detect that the inventory of certain product is below 100, it will ask warehouse for the exact amount of that user needs, plus 500 extra items for further purchase. This strategy will reduce the frequency to reach out to warehouse so that improve efficiency.

### **Closest Warehouse:**

We will assign the CLOSET distance of warehouse to stock and pack products. Real Amazon also applies the same strategy.

### **Ups Association:**

We specify a UPS account name to associate with the order.

### **Resend Strategy:**

We implemented resend strategy in the communication with world and UPS.

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