

GROUP - 6

Project Name: Online Buying, Selling and Bidding Application

Github Link: https://github.com/TaherVora/cecs575_group-6

1. Project Description:

Online Buying, Selling and Bidding Application is a web application that aims to provide a platform for buying and selling items. Along with this, some products can also be presented for bidding. This application comprises of two panels:

1. Admin Panel
2. User (Buyer or Seller) Panel

The admin can login and add categories and subcategories of products to be displayed to the users. The admin has the responsibility to authenticate and manage the posts updated by the users and check the payment details. The users can perform the registration and can act as buyers or sellers. They can also provide the product for auction or bidding.

A seller can post ads for products to either sell or bid on. The seller sets a base price for the product and a time until which the bidding will continue. The base price will be updated every time a buyer places a bid (the bid placed should be greater than the current bid price at that time).

This application also provides buyers with a feature of shopping cart, wherein a buyer can add products and later checkout all the products together. The buyer will also have the ability to modify their cart. After checking out, the buyer will be able to view order details on the Order Details page.

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3. Use Cases:

1. Manage Category and Sub Category
2. Manage Posts
3. Registration and Login
4. Purchase Product
5. Perform Bidding

Use Case Descriptions:

1. Manage Category and Sub Category

Title	Manage Category, Sub Category
Actor	Admin
Pre-Condition	<ul style="list-style-type: none">• Admin must know the valid credentials to login.• Category and sub category must be added.
Main Flow	<ul style="list-style-type: none">• The category and subcategory can be blocked, un- blocked and deleted.• If the category is blocked or deleted, its corresponding sub categories are also blocked or deleted automatically.
Alternate Flow	<ul style="list-style-type: none">• Admin can reset password through email by entering a forgotten password.• Add category and sub category to manage them.
Post-Condition	The categories and subcategories are managed as required.

2. Manage Posts

Title	Manage Posts
Actor	User (Seller)
Pre-Condition	Users must know the valid credentials to login.
Main Flow	The posts added by the corresponding user can be edited or deleted by the user as required.
Alternate Flow	If the action is not performed, try again.
Post-Condition	The posts are managed as required.

3. Purchase Product

Title	Purchase Product
Actor	User (Buyer)
Pre-Condition	<ul style="list-style-type: none">• The user must be a registered user.• Users must know the valid credentials to login.
Main Flow	The product can be selected through the category, sub category and posts.
Alternate Flow	If the action is not performed, try again.
Post-Condition	The payment for the product must be completed to complete the purchase.

4. Perform Bidding

Title	Perform Bidding
Actor	User (Buyer)
Pre-Condition	<ul style="list-style-type: none">• The user must be a registered user.• Users must know the valid credentials to login.• The registration fees for that bidding must be submitted by the user.
Main Flow	<ul style="list-style-type: none">• The bid amount can be set by the user which should be higher than the previous bid amount.• The user can also view the bidding status to get updated about that bidding.
Alternate Flow	If user login fails after registration, the user can reset the password.
Post-Condition	The user can bid for the product many times till 24 hours.

Non - Functional Requirements

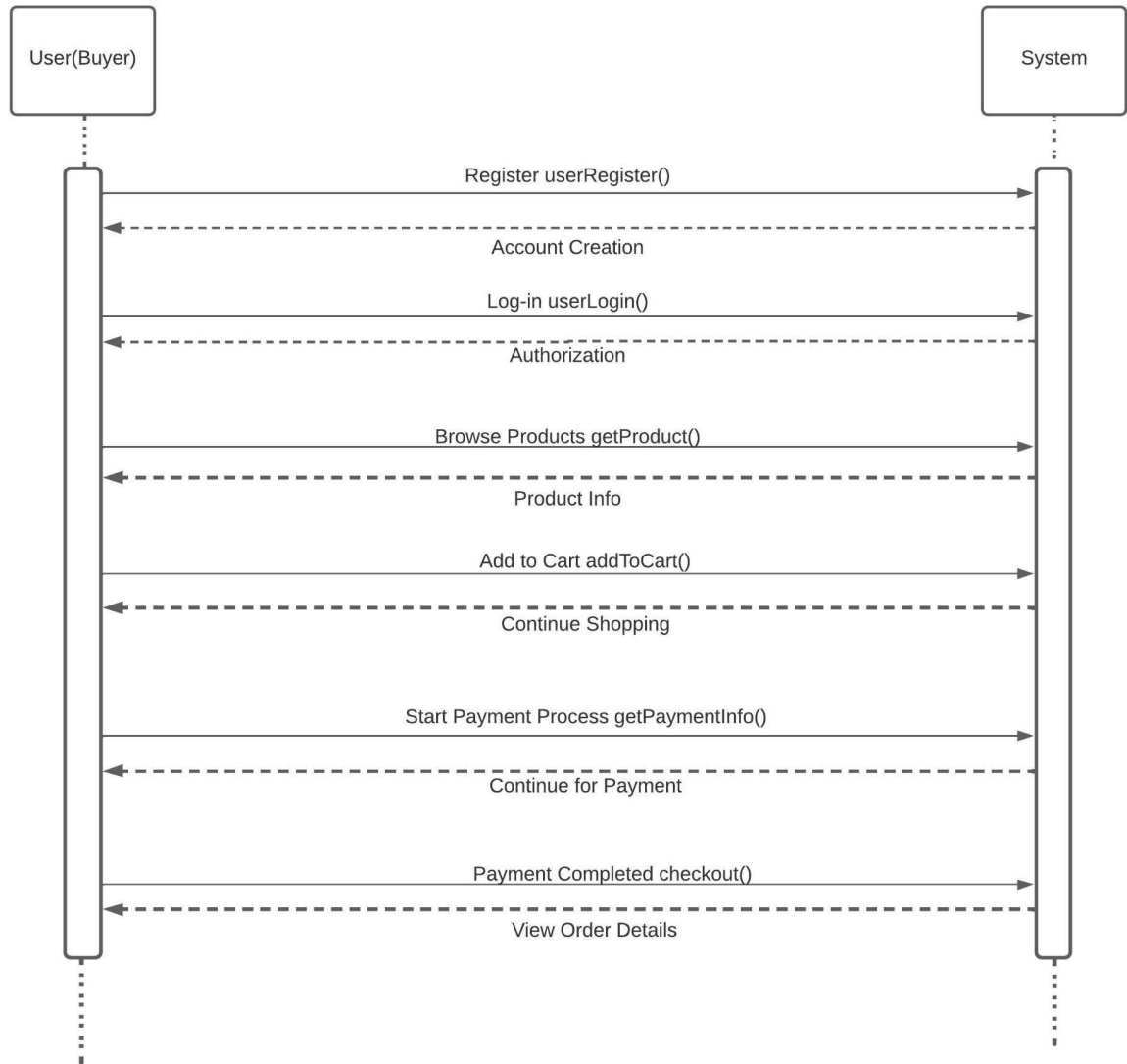
Type of Requirement	Usability. <ul style="list-style-type: none">● Multiple users can register or login to the system at the same time.● It should be easy for a user to browse a specific item.
Type of Requirement	Reliability <ul style="list-style-type: none">● Third party integration for payment.● Transaction failure identification.
Type of Requirement	Performance <ul style="list-style-type: none">● Searching for a product and response time to return the result.● Time taken to process the payment and confirm order.
Type of Requirement	Security <ul style="list-style-type: none">● Admin processes verifies product ads and approves them.● Transaction details should be confidential.

4. Use Case Diagram



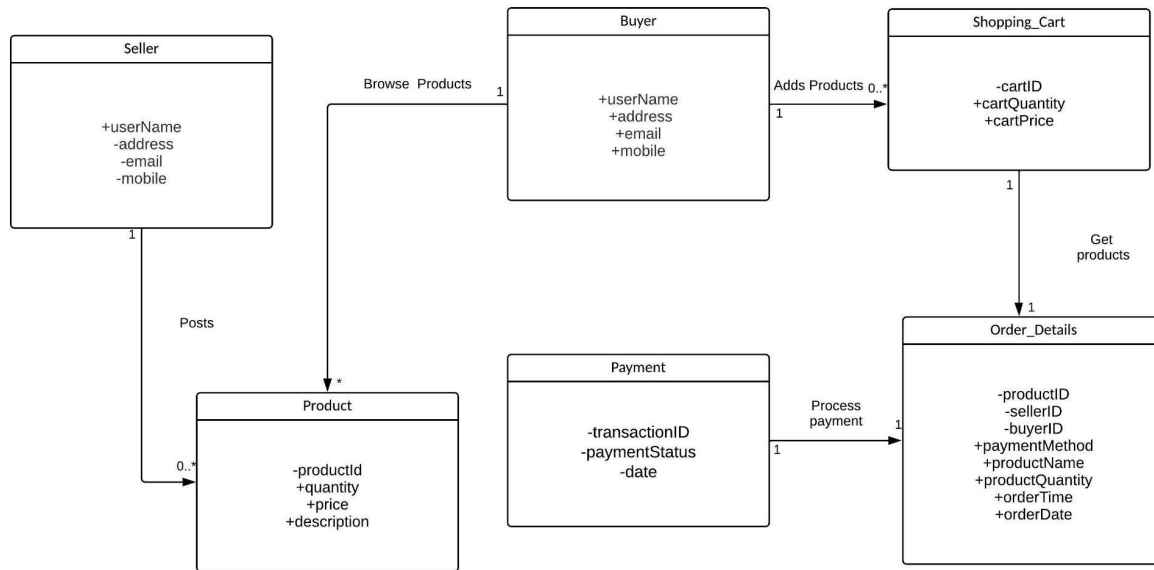
5. System Sequence Diagram

System Sequence Diagram
(Usecase: Purchase Product)



6. UML Domain Model

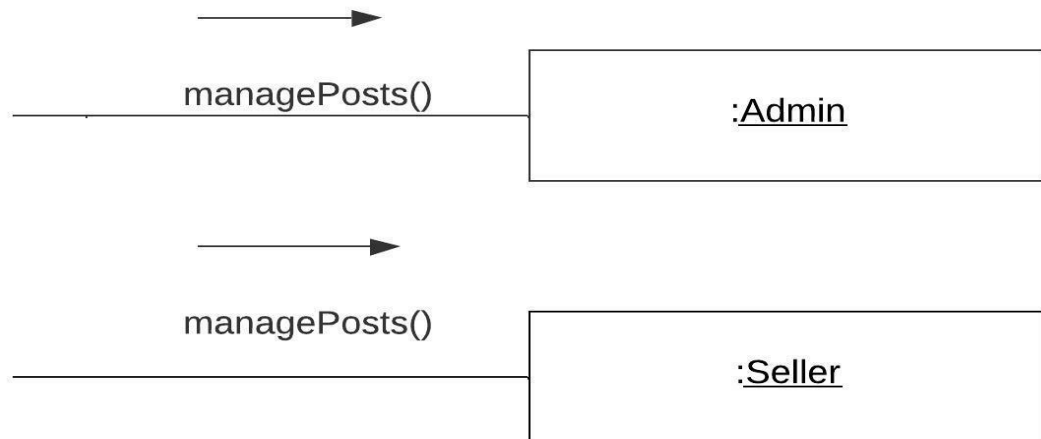
Domain Model Diagram:



7. GRASP Pattern

SNo.	Pattern Name	Associated Responsibility
1.	Information Expert	:Order_Details for getting order details
2.	Creator	:Shopping_Cart for Payment :Seller for Product :Payment for Order_Details
3.	Controller	:Admin for controlling System
4.	High Cohesion	Package 1- :Category, :Subcategory, :Product, Bidding. Package 2- :Shopping_Cart, :Payment, :Order

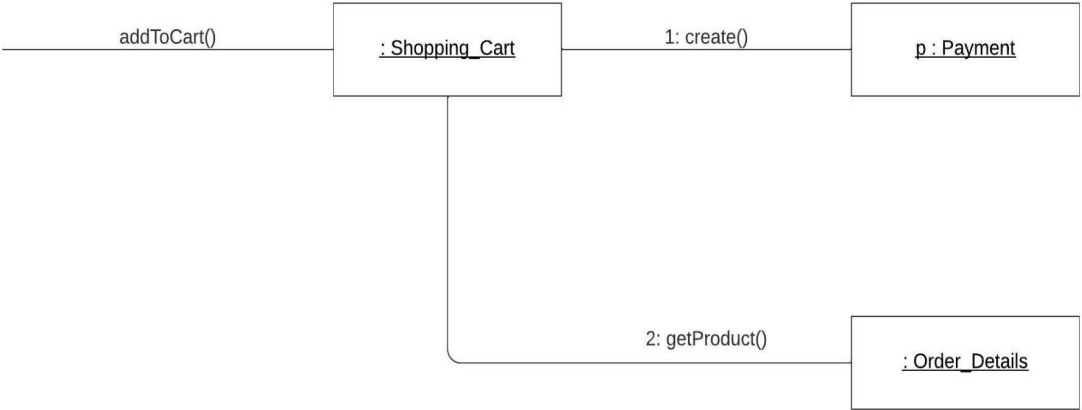
Controller:



Information Expert:



Creator:



8. Design Class Diagram

Design Class Diagram:

