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SOFTWARE ENGINEERING

ASSIGNMENT 2

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A PROPOSED ECOMMERCE FITNESS
APPLICATION

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Use Case Diagram:

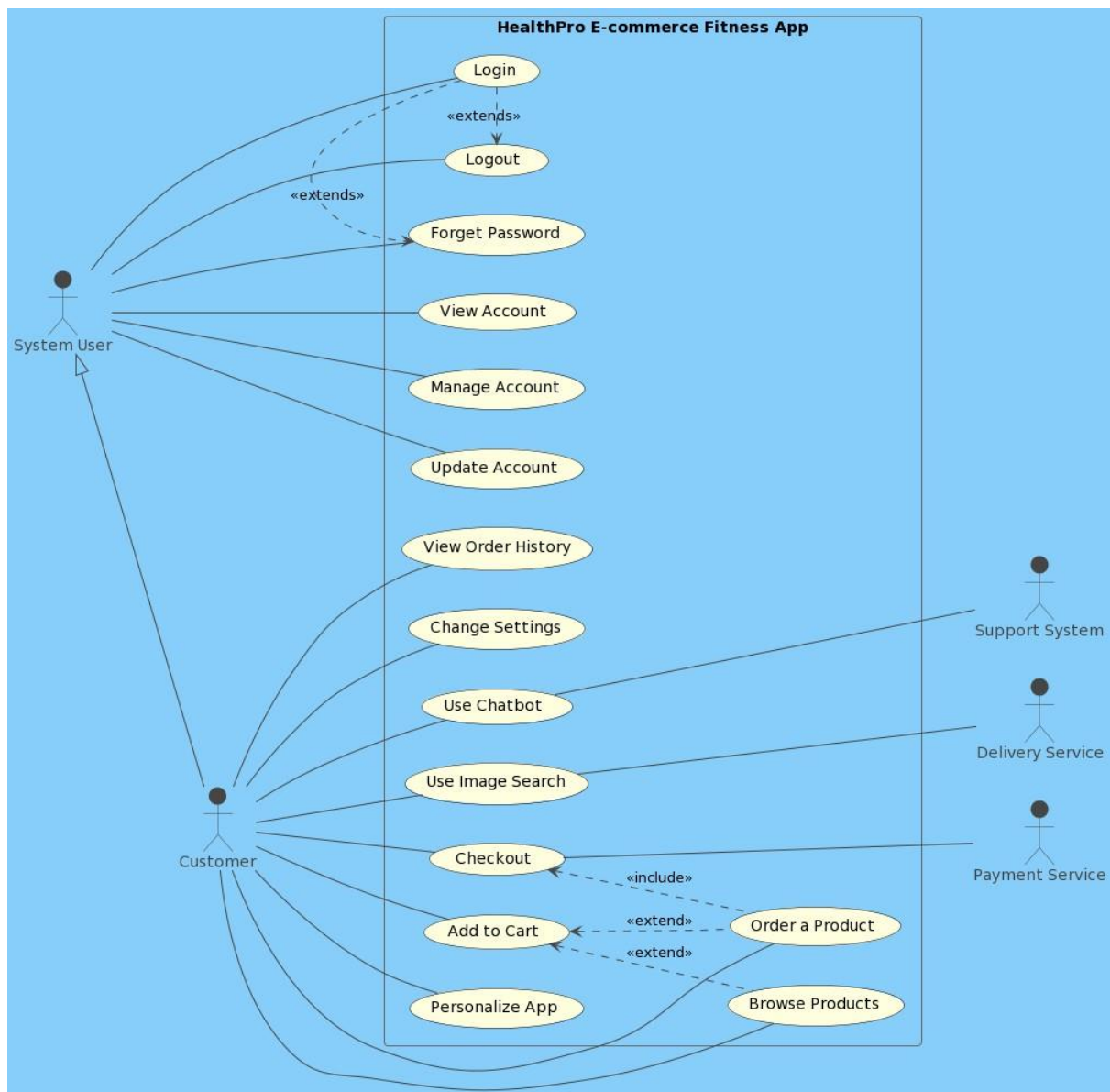


Figure 1: Use Case Diagram

Use Case Description:

Name	Order a Product
Realized User Task	Purchase fitness products
Initiating Actor	Customer
Participating Actors	Payment Service, Delivery Service
Flow of events	Customer Actions: <ol style="list-style-type: none"> 1. Selects products 2. Initiates "Order a Product" 3. Provides delivery details 4. Provides payment information System Responses: <ol style="list-style-type: none"> 1. Displays selected products 2. Calculates total cost 3. Estimates delivery time 4. Processes payment and confirms order
Exceptions	Payment failure: Suggest alternative methods Delivery issue: Inform Customer and adjust options
Preconditions	Customer is logged in with items in cart
Postconditions	Order placed, payment processed, delivery scheduled
Includes Use Cases	Add to Cart, Checkout
Used Services	Payment Processing, Delivery Scheduling
Non-functional Requirements	Secure processing, real-time confirmation, high availability

Design Class Diagram (Order a Product):

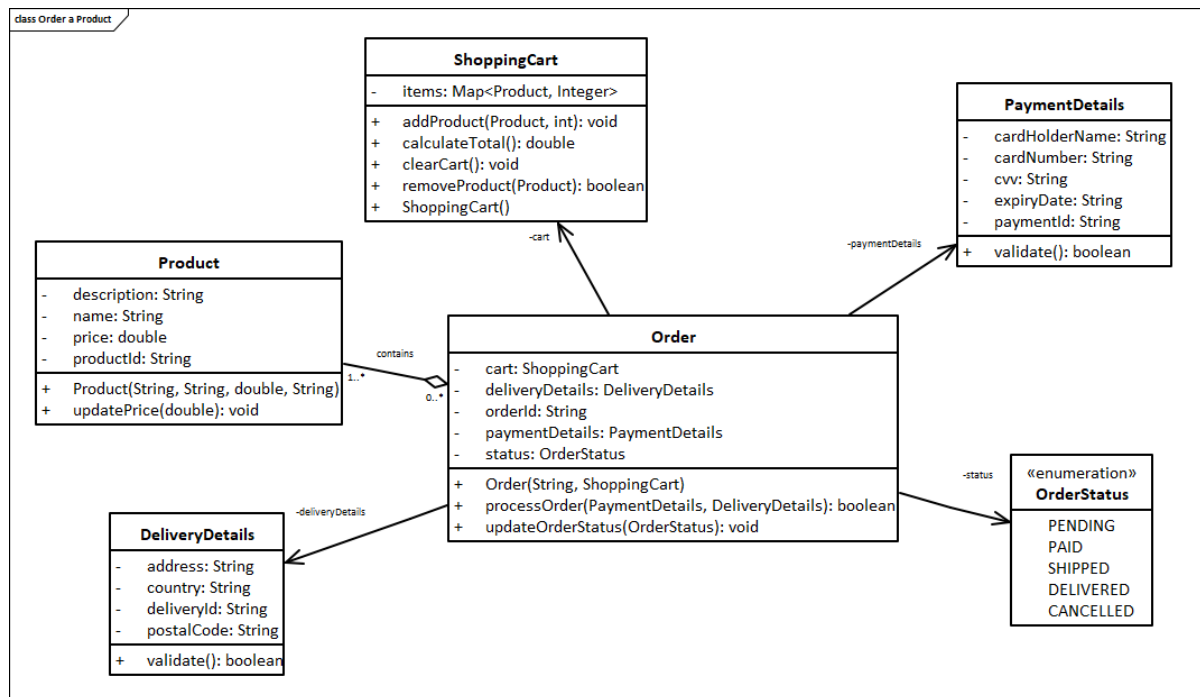


Figure 2: Design Class Diagram

Sequence Diagrams:

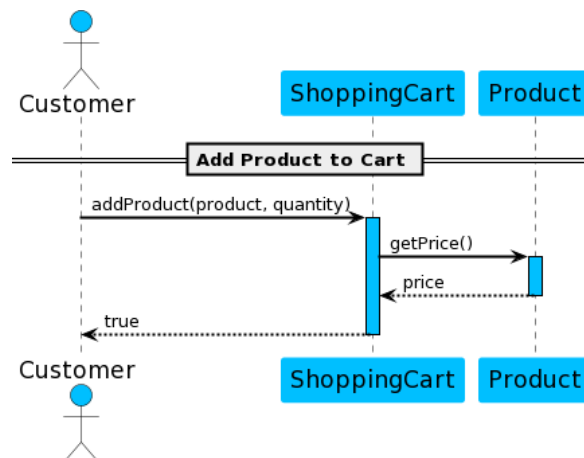


Figure 3: Add Product To Cart

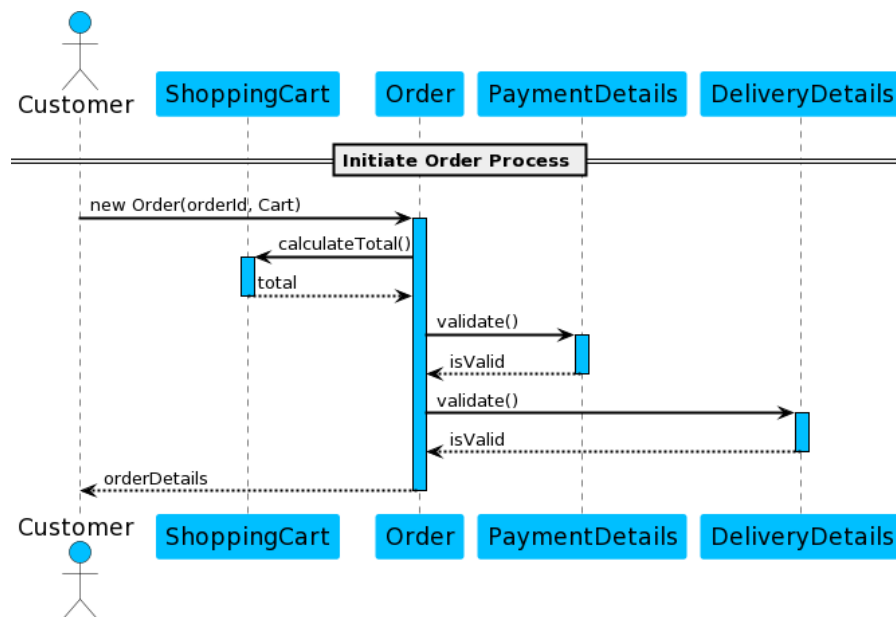


Figure 4: Initiate Order Process

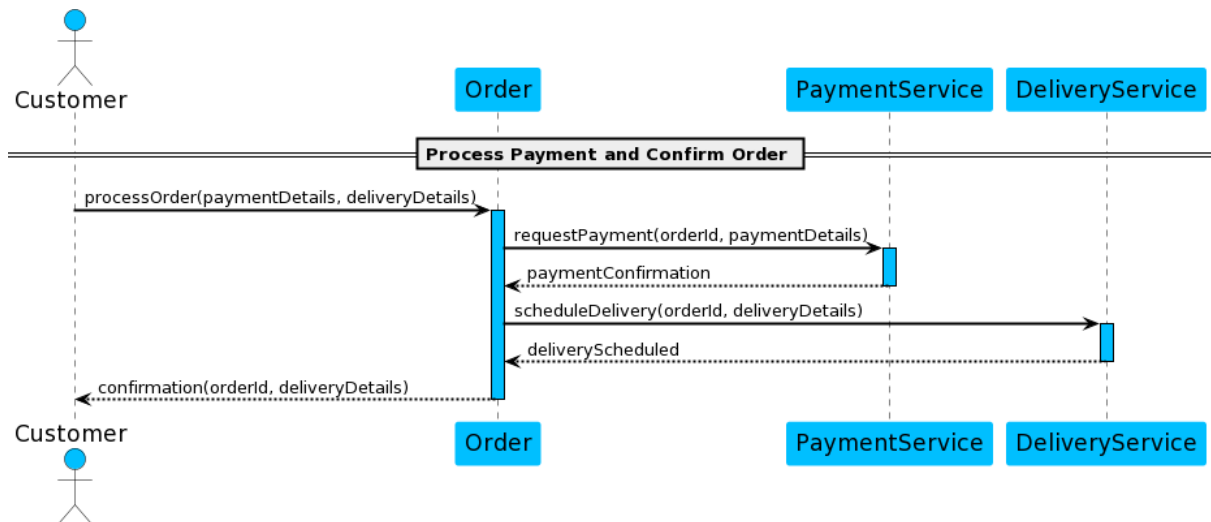


Figure 5: Process Payment and Confirmation

State Chart Diagram:

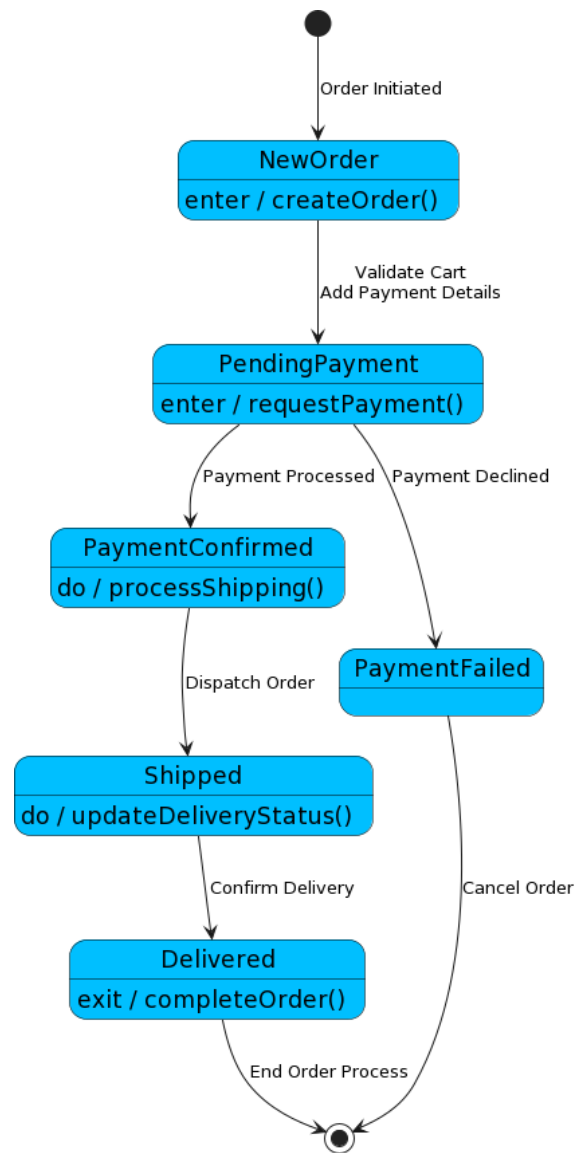


Figure 6: State Chart Diagram