

Assignment # 1

report

Vineet Choudhury
Wahaj Ali
Alex Rudenko
IMSE
2012

Actors

- Customer

(any user who is interested in ACME webshop)

- Registered Customer

(specialized actor who inherits the use cases of the generalized actor "Customer" but have some additional use cases)

- External Shops

(external parties who can buy certain items in quantities)

- Time

(triggers the internal resupply process)

- Payment Service

(third party responsible for payment process)

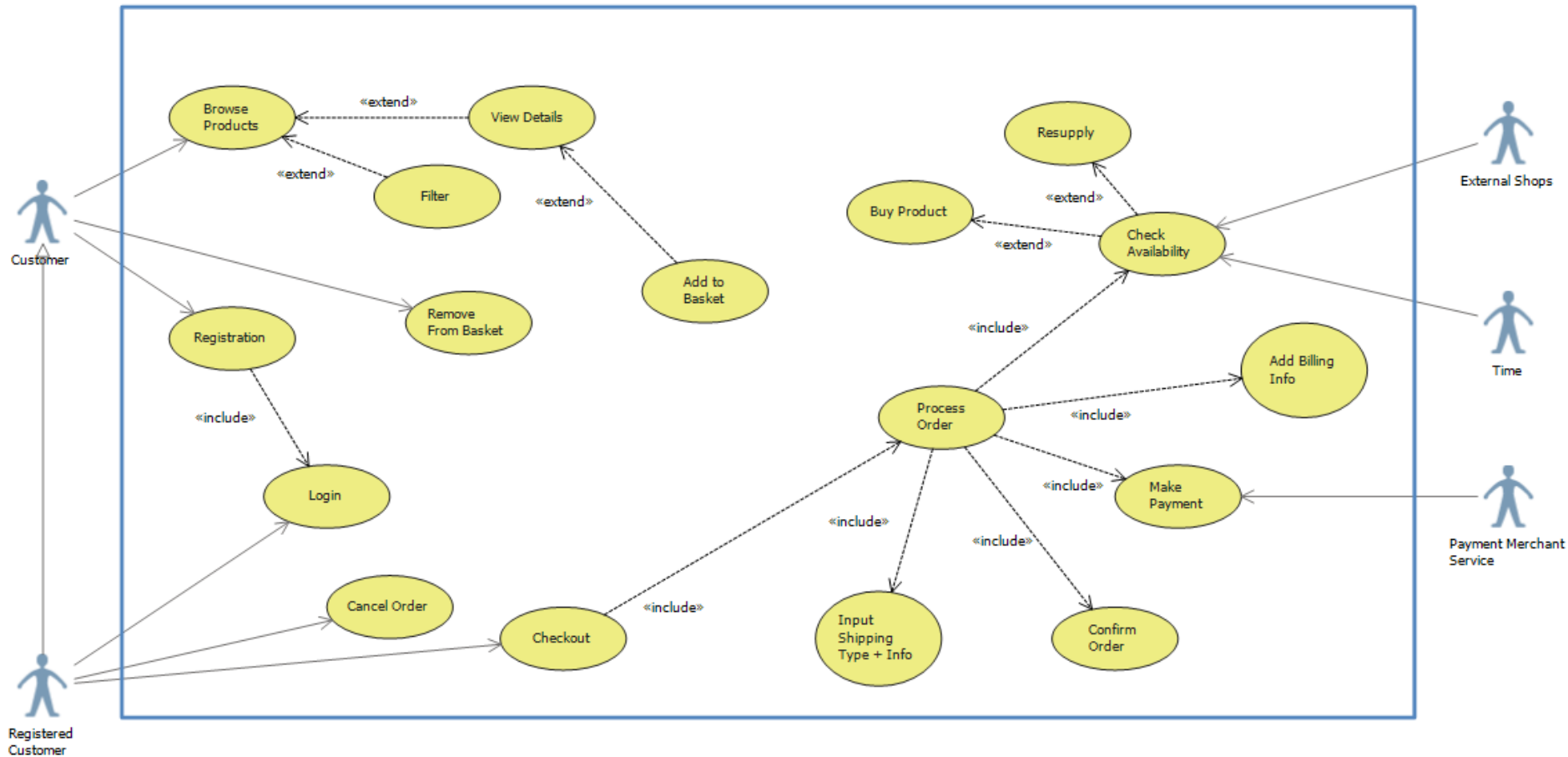
Use cases-1

- Browse Products
- View Details
- Add to Basket
- Remove from Basket
- Login
- Register
- Cancel Order
- Checkout
- Process Order
- Check availability

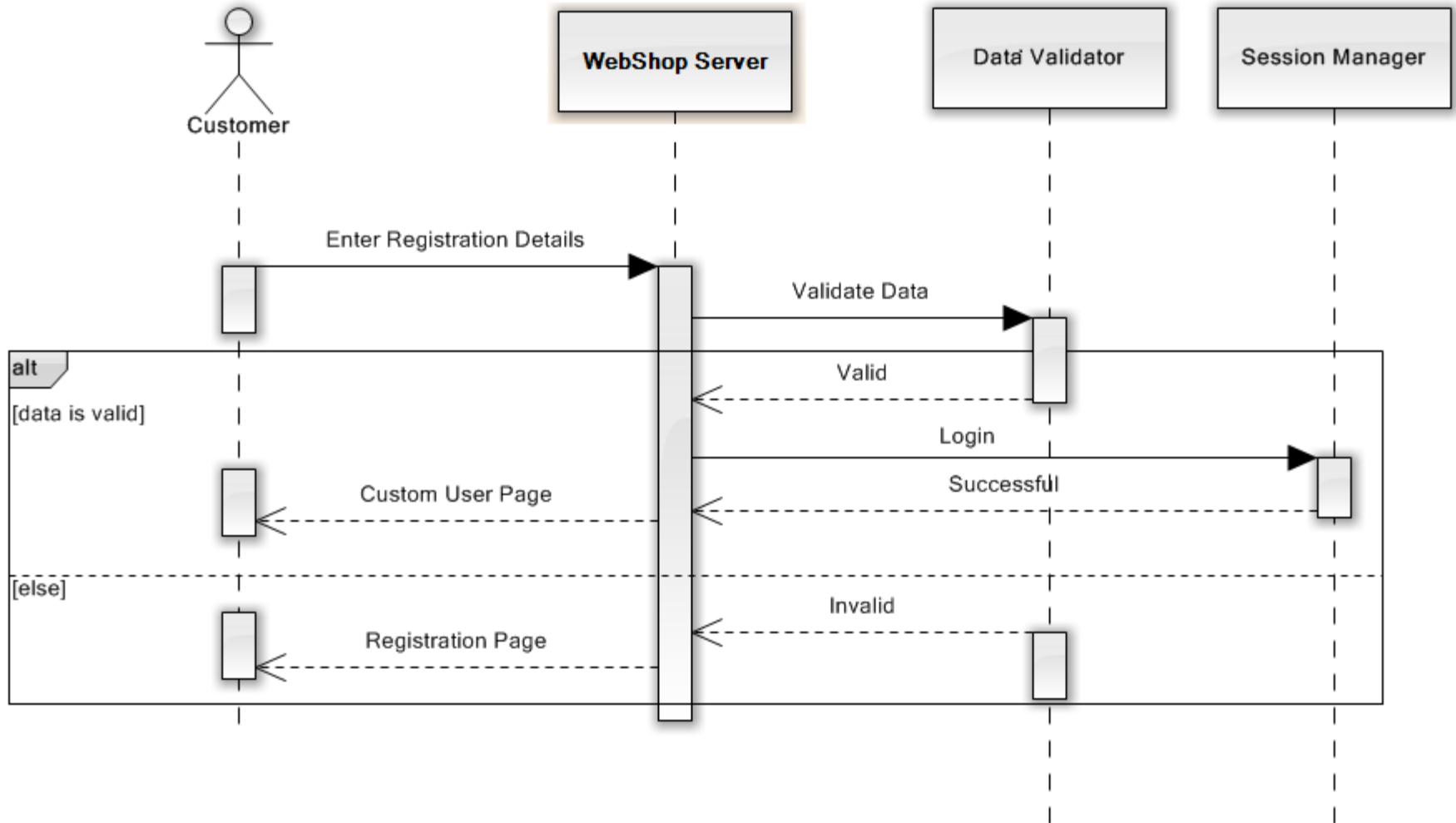
Use cases - 2

- Resupply
- Buy Product
- Add Billing Info
- Make payment
- Confirm Order
- Input Shipping Type + Info

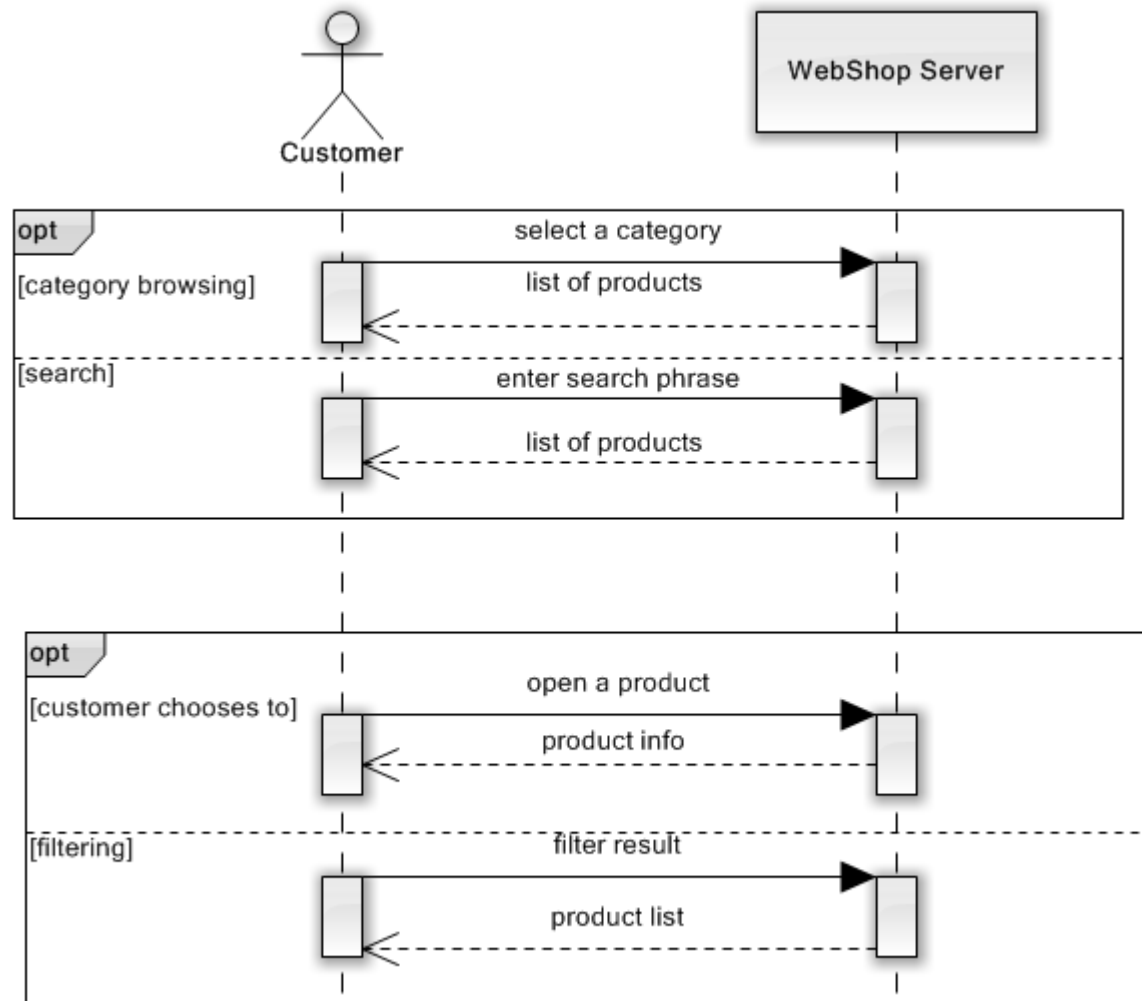
Use case diagram



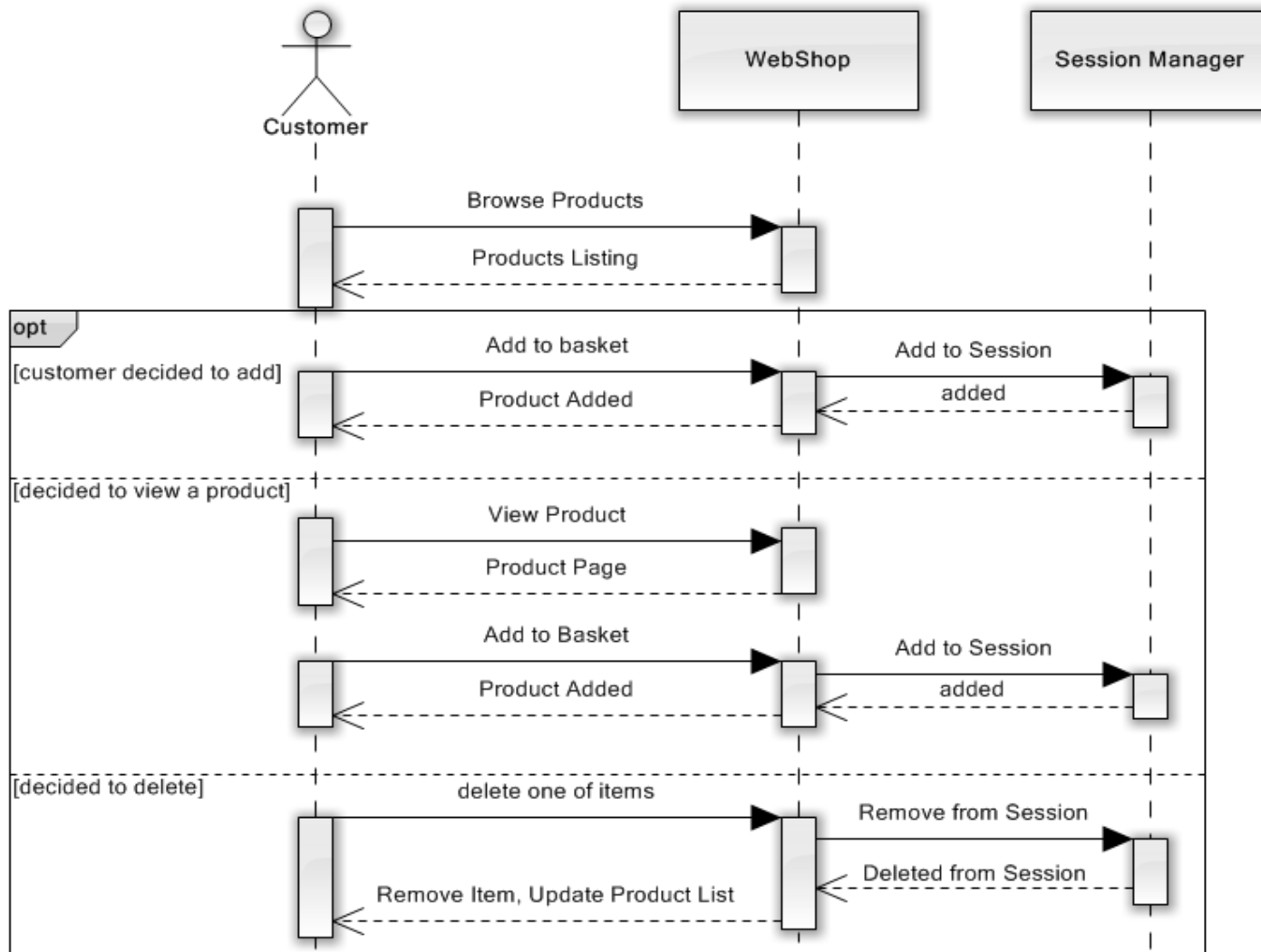
Sequence diagrams: Registration



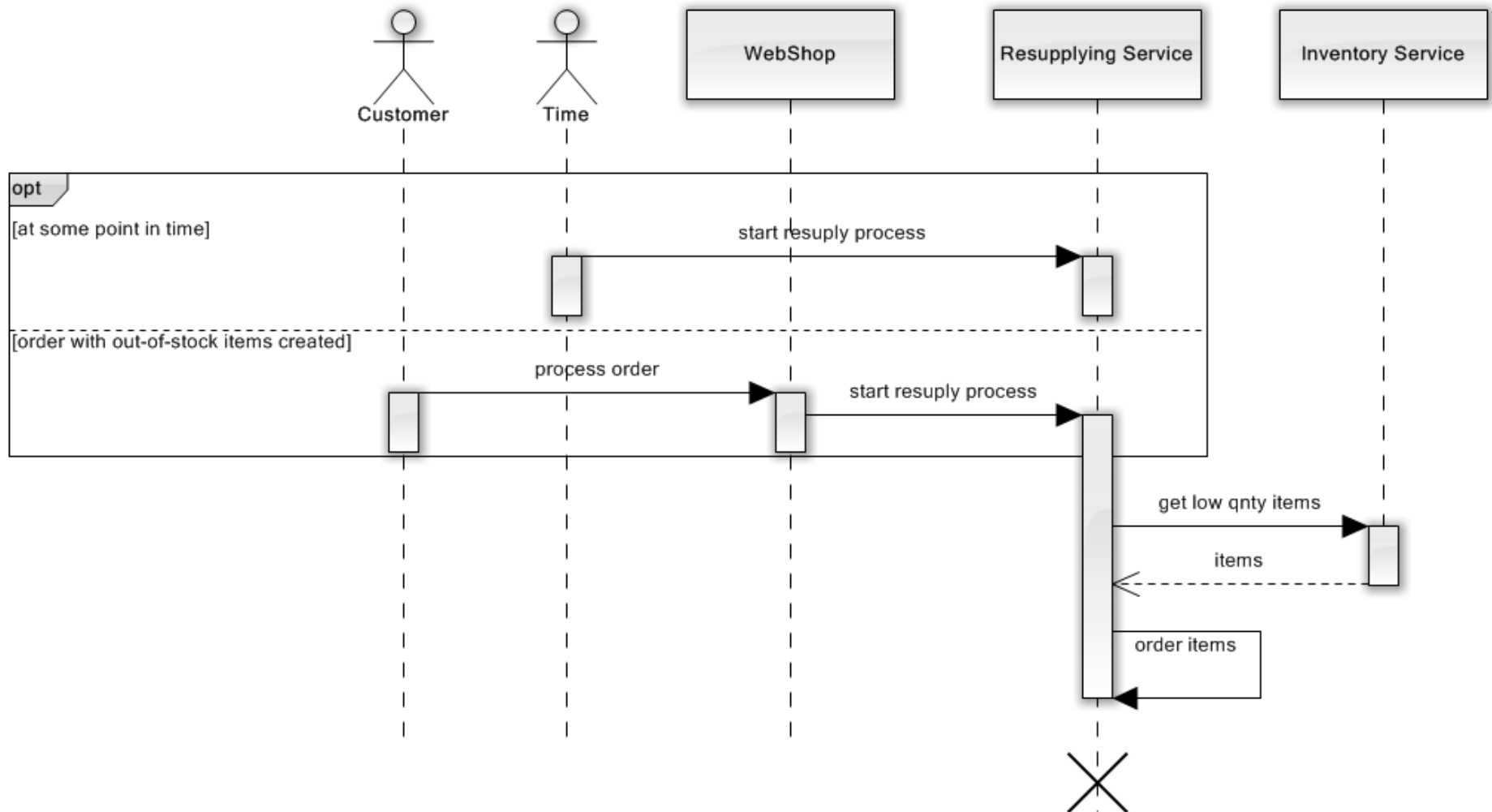
Sequence diagrams: Browse Products



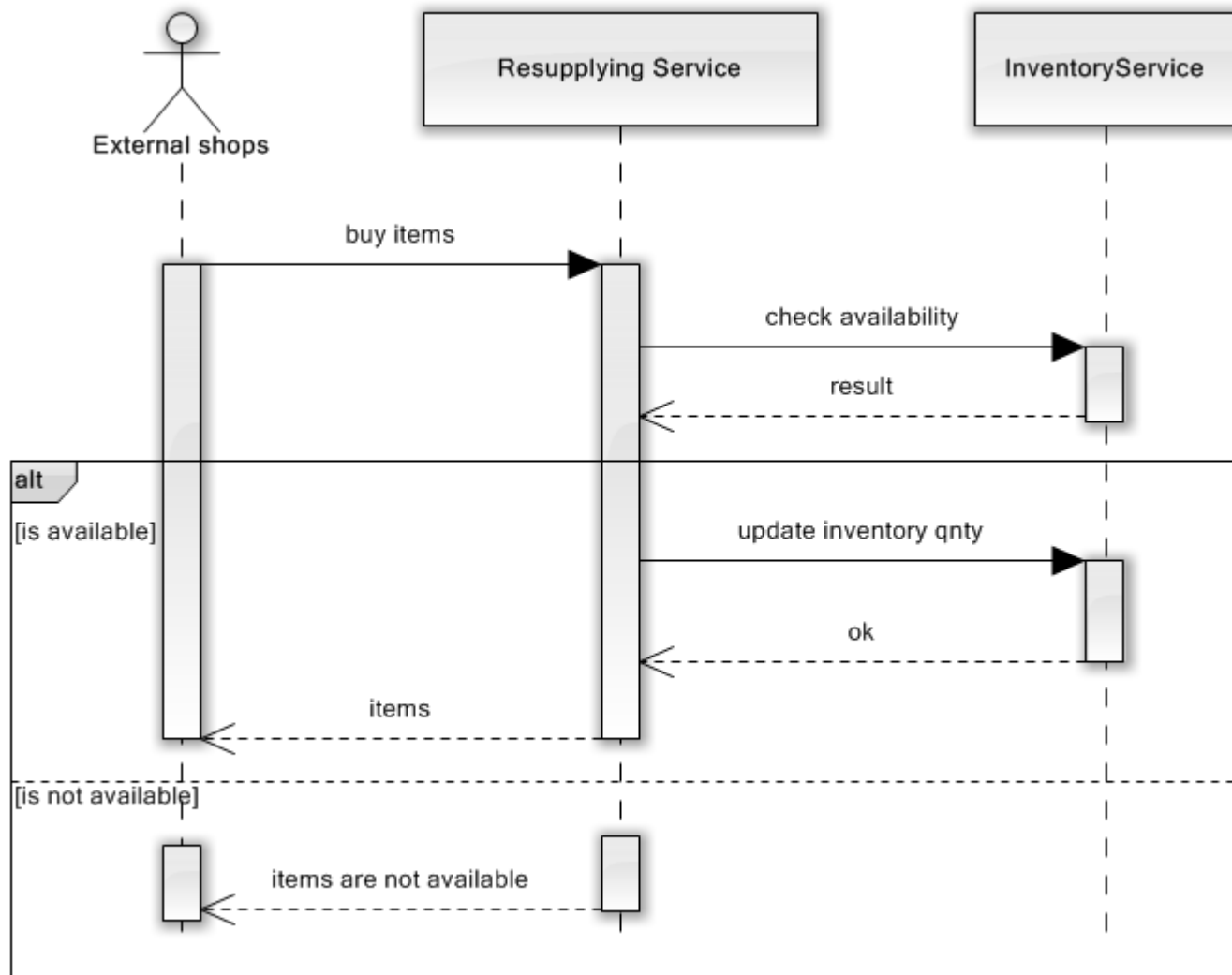
Sequence diagrams: Basket Management



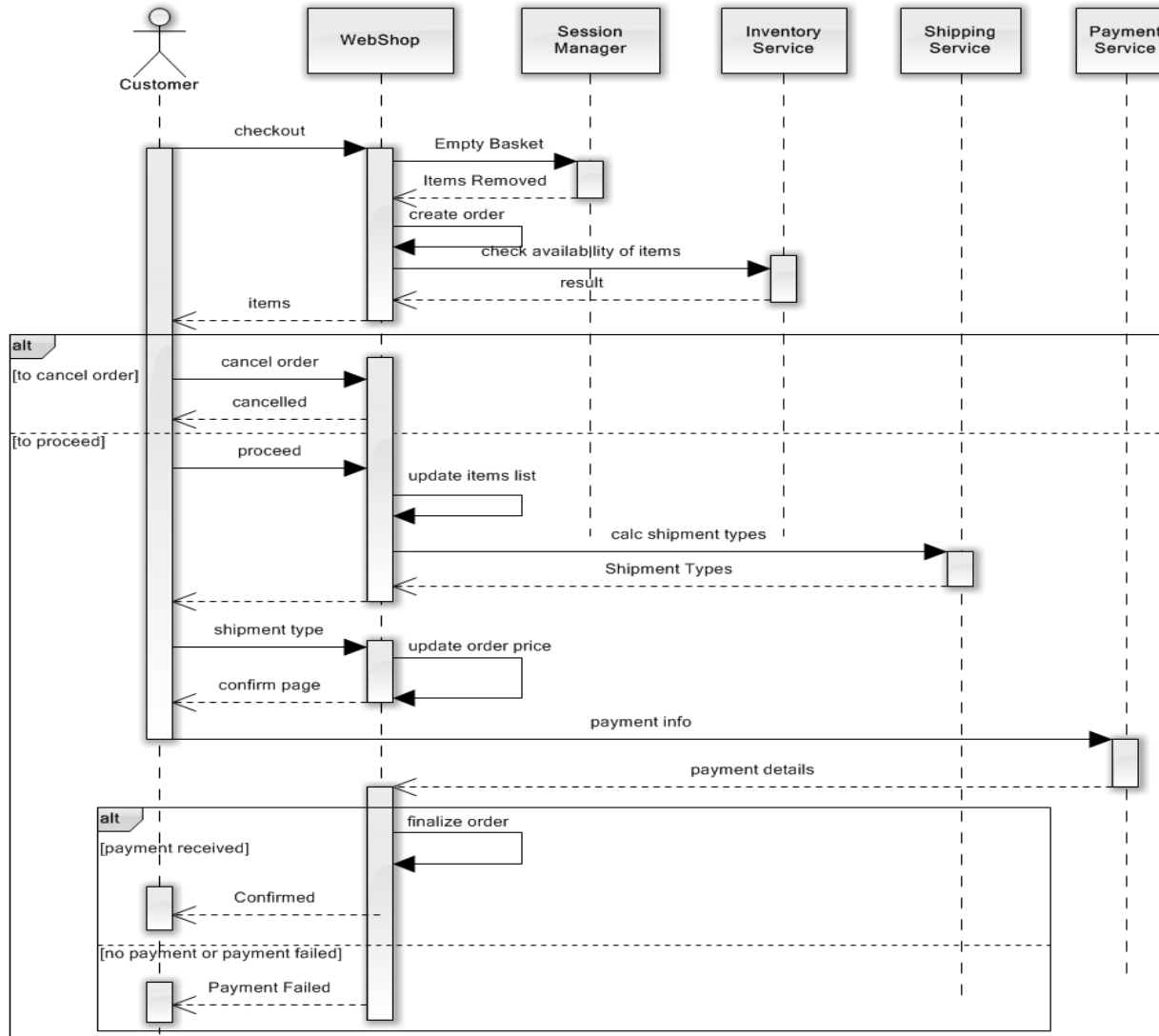
Sequence diagrams: Resupply items



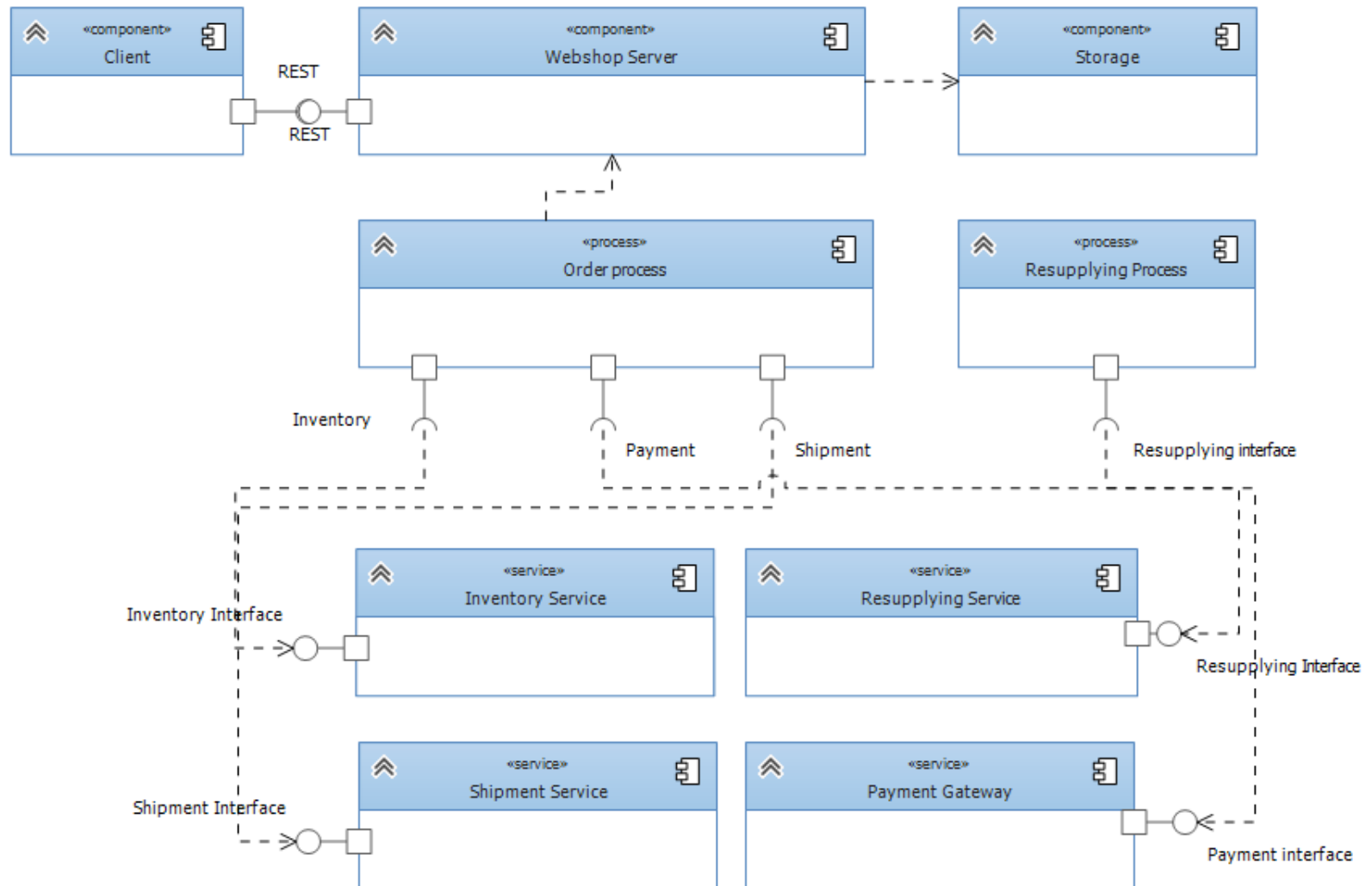
Sequence diagrams: Buy items



Sequence diagrams: Process order



Architecture



Architecture

System is implemented as following:

- Web shop application resides inside the WSO2 application server
- Business processes are executed by WSO2 Business Process Server.
- Two business processes (Order processing and Resupplying process) are implemented using BPEL
- Payment Gateway is a service that encapsulates real Payment Merchant service

Architecture 2

- Payment Gateway receives and process JMS messages from Payment Merchant Server
- Inventory, Resupplying and Shipment services are implemented web services supporting SOAP
- Front-end web server is implemented as REST web service
- Client is implemented as JS/JSP application and communicates with Front-end web server