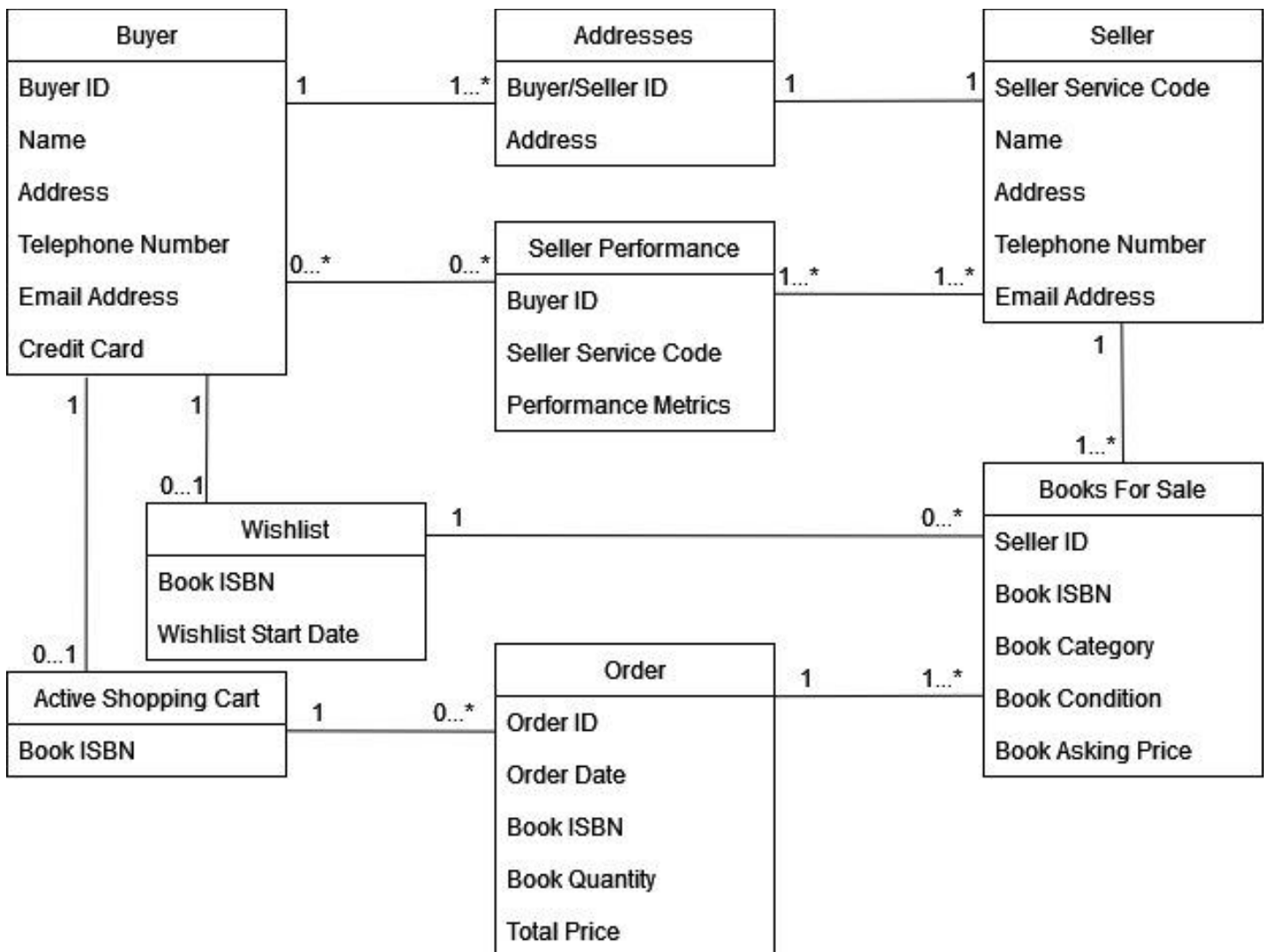Individual Assignment #2

Christopher Koepke

CS 3560.01

March 11, 2022

DOMAIN MODEL CLASS DIAGRAM

USE CASE DIAGRAM
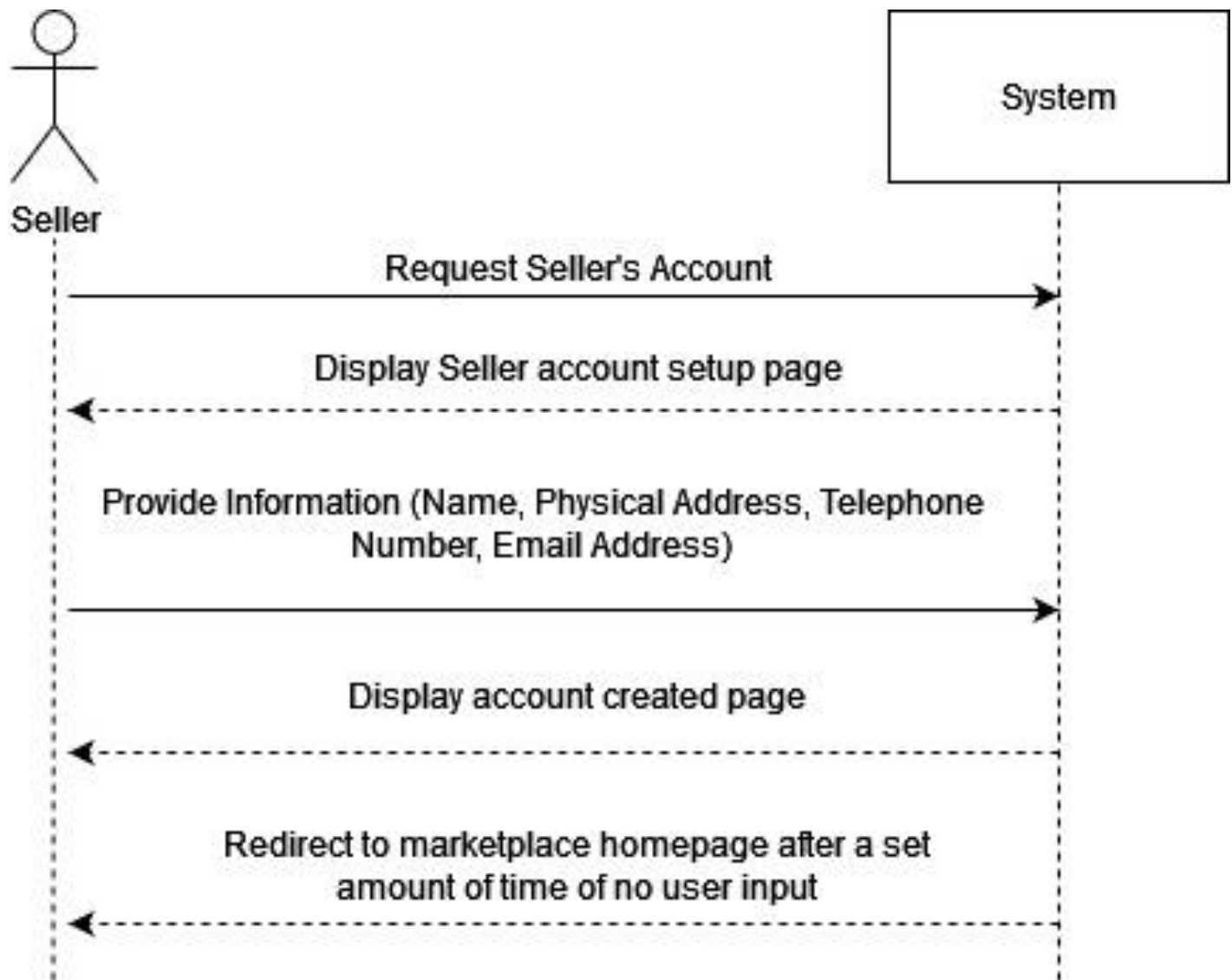
Use Case	Description	Actors/Users
Create Buyer Account	When an individual browses the site for books and decides to buy one they would need to create a buyer's account. The account will use their name, physical address(es), telephone number(s), email address, and credit card information.	Buyer
Create Seller Account	When an individual wants to sell a book on this site, they would need to create a seller's account. They would have to provide a name, physical address, telephone number, and email address.	Seller
Look up Books	An individual that decides to browse the site for books will use the site's search engine to look up books by ISBN, category, price, and condition. The search can consist of one or more conditions described.	Buyer, System
Create Order	When a buyer decides to purchase an X number of books, an order is created. The order contains the order ID, order date, book ISBN, book quantity, total price.	System
Order Notification	When an order is finalized, the system sends an email notification to the seller. The system also updates the status of a book as sold on the site. The seller must notify the buyer of the sale within 48 hours of receiving the order notification email from the system.	System, Seller
Order Shipment	The shipping status must be updated by the seller within 24 hours of sending the buyer an acknowledgment of the order from the order notification use case. Once the system is updated, it maintains the order in a shipped status.	Seller, Buyer, System
Mail Check	After 30 days of an order's shipping status being updated, the seller will receive a check for the purchase amount of any book(s) bought by buyer(s), minus the company's costs.	System, Seller
Seller Performance	The buyer may decide to enter information relevant to a Seller's performance. Their shipped order will include a Seller ID that would then be used on the site to rate the Seller if they so choose. The system will notify the seller of any performance review(s) submitted using their seller ID. The seller may log into their account to view all submitted reviews.	Buyer, Seller, System

FULLY DEVELOPED USE CASE DESCRIPTION

Use Case Name	*Create Seller Account*	
Scenario	Create a Seller's account for online book sales.	
Triggering Event	New customer wants to setup an account to sell book(s) on this online marketplace.	
Brief Description	An individual can create a customer account by requesting a new account setup using their name, physical address, telephone number, and email address.	
Actors	Seller	
Related Use Cases		
Stakeholders	Accounting, Marketing	
Preconditions	Seller account subsystem must be available. Verification of provided information must be performed.	
Postconditions	Seller account must be created and saved. Address must be created and saved. Address and account must be related to the seller.	
Flow of Activities	**Actor**	**System**
	1. A book seller must indicate a desire to sell their book(s) on our online marketplace. 2. New seller must enter their name, physical address, telephone number, and email address; new seller will than submit the information for review.	1.1 System redirects potential seller to new user account setup page. 1.2 System prompts for name, address, telephone number, and email address. 2.1 System creates new Seller's account. 2.2 System requests verification of given name and address to a third-party system. 3.1 Upon name and address verification, system associates the Sellers account with the given information. 3.2 System returns an account created page to the seller. 3.3 System sends out an email notification of the created account to the given email address. 4.1 System will redirect to the home page of the marketplace after an X amount of time of no input from new seller.
Exception Conditions	2.1 Missing information. 3.1 Name and address verification failed.	

Use Case Name	*Record a Book Order*	
Scenario	An order is placed for any book(s) that is/are for sale on the online marketplace.	
Triggering Event	A buyer has completed a purchase for the book(s) that they requested.	
Brief Description	A buyer has selected a number of books for purchase, completed the online purchasing order, and paid with a credit card that matches what is in the system.	
Actors	Buyer	
Related Use Cases		
Stakeholders	Marketing, Accounting, Seller	
Preconditions	Buyer adds desired book(s) to their online shopping cart. Credit/Debit system must be active.	
Postconditions	Required funds must requested for withdraw from Buyer's bank. Received requested funds from pertinent bank. System notifies Buyer of successful payment. System records the book(s) order. Seller(s) are notified about the payment for the requested book(s). System sends email verification of the order to the Buyer. System records any rejections by the Buyer. System submits refunds to Buyer's bank upon verification of book(s) returned to Seller.	
Flow of Activities	**Actor**	**System**
	1. A Buyer selects a number of books to be added to their online shopping cart. 2. Once finished browsing, a Buyer will complete their order using their saved credit/debit card. 3. A Buyer will inspect their order upon delivery. 4. If a buyer feels that their purchase was not as advertised, they will request a rejection and receive a return label to have the book(s) returned to the seller. 5. Buyer will receive a refund deposited into their bank account after X number of days by the marketplace.	1.1 System will update the Buyer's online shopping cart to reflect the Buyer's desired books. 2.1 System will create the order. 2.2 System will prompt Buyer to verify credit/debit card on record. 2.3 System will send payment request to pertinent bank. 2.4 Once payment request is approved, system will notify Buyer of successful order. 4.1 System will email the Buyer a shipping return label upon request for each individual book that was rejected. 4.2 System will notify Seller(s) of requested book rejections. 5.1 System will post refund(s) to the Buyer's bank account after X number of days.
Exception Conditions	1.1 Buyer leaves the marketplace web page before completing order. 2.1 Buyer fails to correctly verify credit/debit card on record. 2.2 Third-party banking system not responding to requests for payment.	

SYSTEM SEQUENCE DIAGRAM FOR *Create Seller Account*

Seller (actor)

System

Seller → System: Request Seller's Account

System ⇢ Seller: Display Seller account setup page

Seller → System: Provide Information (Name, Physical Address, Telephone Number, Email Address)

System ⇢ Seller: Display account created page

System ⇢ Seller: Redirect to marketplace homepage after a set amount of time of no user input

SYSTEM SEQUENCE DIAGRAM FOR *Record a book order*