Homework 2

Vacation Case Study

Famous online giant Amazon that has dominated the e-commerce market is now moving into the hospitality business. Similar to AirBNB, it lets prime members book rooms/homes owned by other verified prime members. Customers are used to booking thru other travel websites and vacation rental. However, Amazon plans on using its reputation and brand to gain a foothold in this market. The basic idea is to encourage people to take short, cost effective vacations. Even though it only contracts with prime members, Amazon plans to partner with them all over the thereby creating the largest hospitality franchise. Amazons site, now includes a travel section that has information on destination like any other site. Members can book their reservation and add special requests like any other travel website.

The selling members, i.e. the ones who are renting out their houses need access to the information from Amazon such as the bookings, reservations for made for their property. They need details of the guests who will be arriving and the form of payment. Amazon wants the guest to have the ability to pay using a credit card without paying international fees, especially when travelling abroad.

Amazon would like members and only members to be able to communicate with each other on their own platform regarding their experience with both the guests and the locations.

PART 1

1. Identify the different classes for the social networking subsystem. Think what could be beneficial data points that should be collected
   Prime Members: Prime members of Amazon
   - Member Id
   - Name
   - Contact
   - Email
   - Profile Picture
   - Payment Account

   Seller: People who are renting out their houses.
   - Seller Id
   - Properties
   - Guests Review
   - Guests Rating

Customer: Person who books accommodation at desired destination through Amazon's Hospitality System.

- Customer Id
- Booking History
- Seller Review
- Seller Rating

Property: List of properties owned by any seller on Amazon hospitality System

- Property Id
- Property address
- Property type
- Availability
- Pricing
- Size
- Amenities
- Photos
- Reviews

Guest: Additional persons staying at the property.

- Name
- Contact
- Booking ID
- Seller Review
- Seller Rating

Booking: Customer booking details.

- Booking ID
- Checkin Date
- Checkout Date
- Number of guests
- Guests
- Cost
- Payment Details
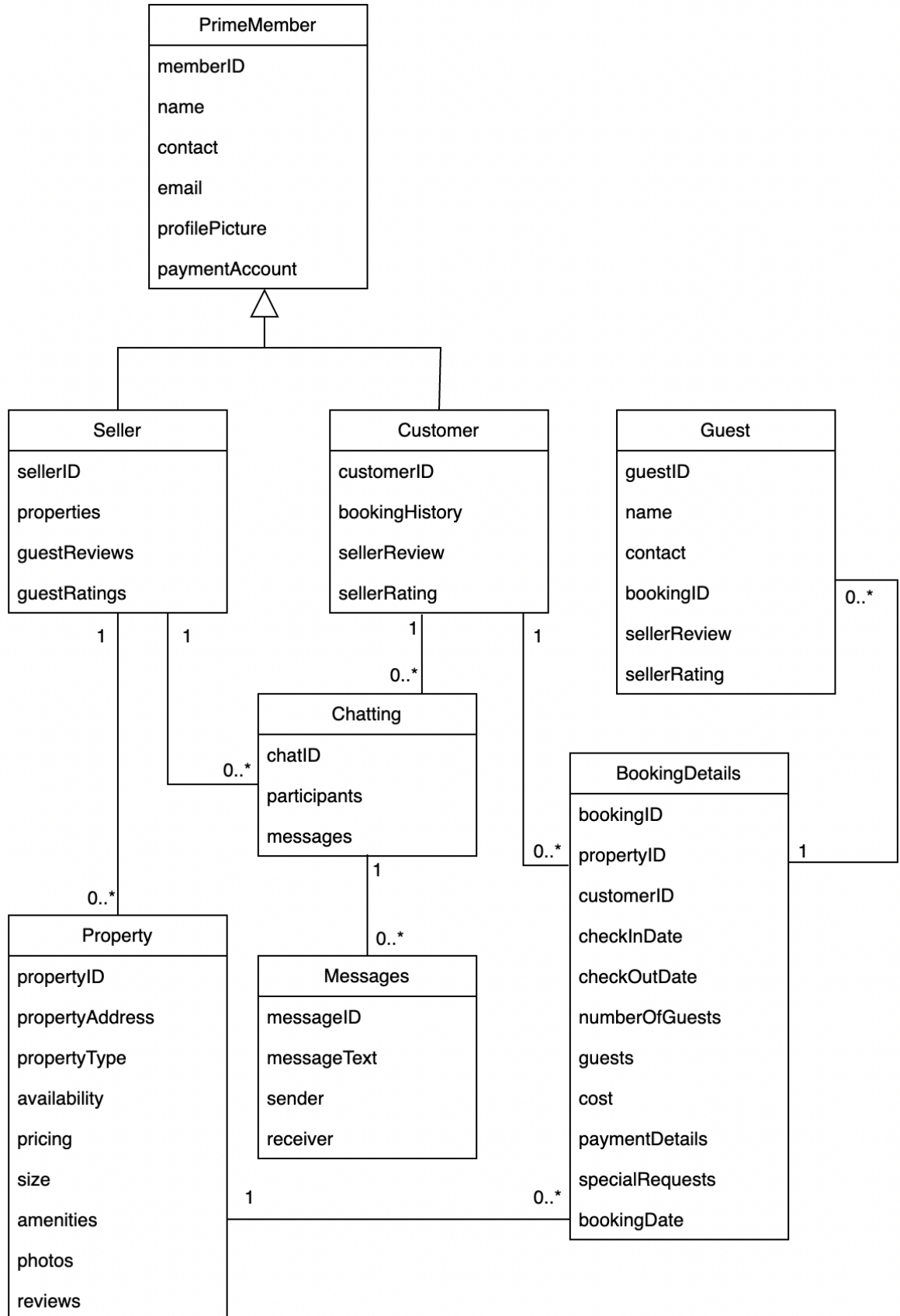- Special Requests
- Booking Date

Chatting: Communication between prime members

- Chat ID
- Participants
- Messages

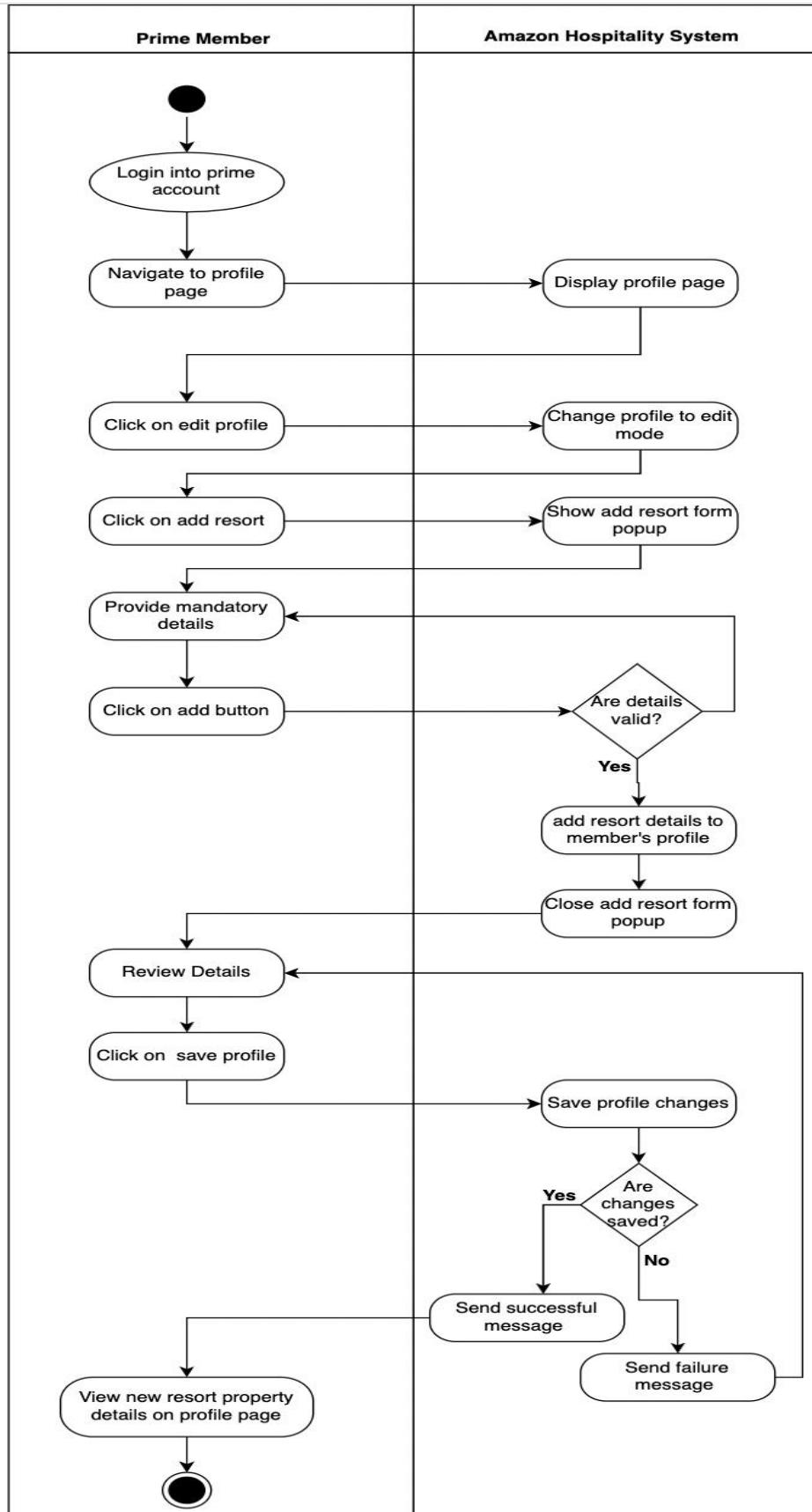**Messages:** Messages exchanged between sender and receiver.

- Message ID

- Message Text
- Sender
- Receiver

2. Based on the domain classes you identified, draw a domain model class diagram showing domain classes with attributes and associations with multiplicity.

PrimeMember

memberID

name

contact

email

profilePicture

paymentAccount

Seller

sellerID

properties

guestReviews

guestRatings

Customer

customerID

bookingHistory

sellerReview

sellerRating

Guest

guestID

name

contact

bookingID

sellerReview

sellerRating

0..*

Chatting

chatID

participants

messages

1

1

0..*

0..*

0..*

1

Property

propertyID

propertyAddress

propertyType

availability

pricing

size

amenities

photos

reviews

0..*

1

Messages

messageID

messageText

sender

receiver

0..*

BookingDetails

bookingID

propertyID

customerID

checkInDate

checkOutDate

numberOfGuests

guests

cost

paymentDetails

specialRequests

bookingDate

0..*

1

0..*

PART 2

1. Lets say a prime member purchased a new resort, create an activity diagram showing how that resort will be added to their profile

Prime Member	Amazon Hospitality System

Login into prime account

Navigate to profile page → Display profile page

Click on edit profile → Change profile to edit mode

Click on add resort → Show add resort form popup

Provide mandatory details

Click on add button → Are details valid?

Yes → add resort details to member's profile → Close add resort form popup

Review Details

Click on save profile → Save profile changes

Are changes saved?

Yes → Send successful message

No → Send failure message

View new resort property details on profile page

2. Please write a fully developed use case for a prime member booking a reservation at a location

Use Case Name:	Book Reservation at a Location	
Scenario:	Book Reservation online at a Location	
Triggering Event:	Prime Member wants to book a property.	
Actor:	Prime Member - Customer	
Brief Description:	Prime member books a property by searching the property at a desired location and finalizing one, providing required details and finishing the payment.	
Related use cases:	Cancelling the booking, Review and Rating	
Stakeholders:	Selling Member, Customer, Finance team, Marketing and Sales team	
Preconditions:	• The prime member must have an active Prime membership. • The prime member must be logged in to their Prime account. • The prime member must have access to the Amazon travel section. • The location they wish to book must be listed on Amazon's travel section and owned by another prime member.	
Postconditions:	• Prime Member's booking is confirmed and booked at the selected location. • Selling Member receives booking details, guest information, and payment information from Amazon. • System updates the availability and booking status of the location on Amazon's hospitality platform.	
Flow of Activities:	**Actor**	**System**
	1. Prime Member selects a destination from the available options on Amazon's hospitality platform. 2. Prime Member selects the desired check-in and check-out dates, number of guests and other required details. 3. Prime Member clicks on "Book Now" button to proceed with the booking. 4. Prime Member reviews the booking details, provides payment information and confirms the booking by selecting the "Confirm Booking" button.	1.1. System displays destination information, including property details, availability, pricing, and guest reviews. 3.1. System prompts Prime Member to review and confirm the reservation details, including check-in and check-out dates, guest count, pricing. 4.1. System validates the payment information and confirms the booking by displaying a booking confirmation message, along

		with a confirmation number and other relevant details.
	5. Prime Member receives a confirmation email or notification with the reservation details and confirmation number.	
Exception Conditions:	3.1. System displays an error message and prompts Prime Member to correct any missing/incorrect information. 3.1. If the selected location is not available for the desired check-in and check-out dates, System displays an error message and prompts Prime Member to select alternative dates or locations. 4.1. If the payment information provided is invalid or declined, Amazon will prompt the prime member to enter valid payment information.	

3. Draw a use case diagram that show the functionalities for a customer

Amazon Hospitality System

Customer

Browse accommodation based on destination

View details of accomodation

Book /Reserve accommodation

Pay for bookings

Communicate with other members

Modify reservations

<includes>

Add special requests

Review and Rate properties