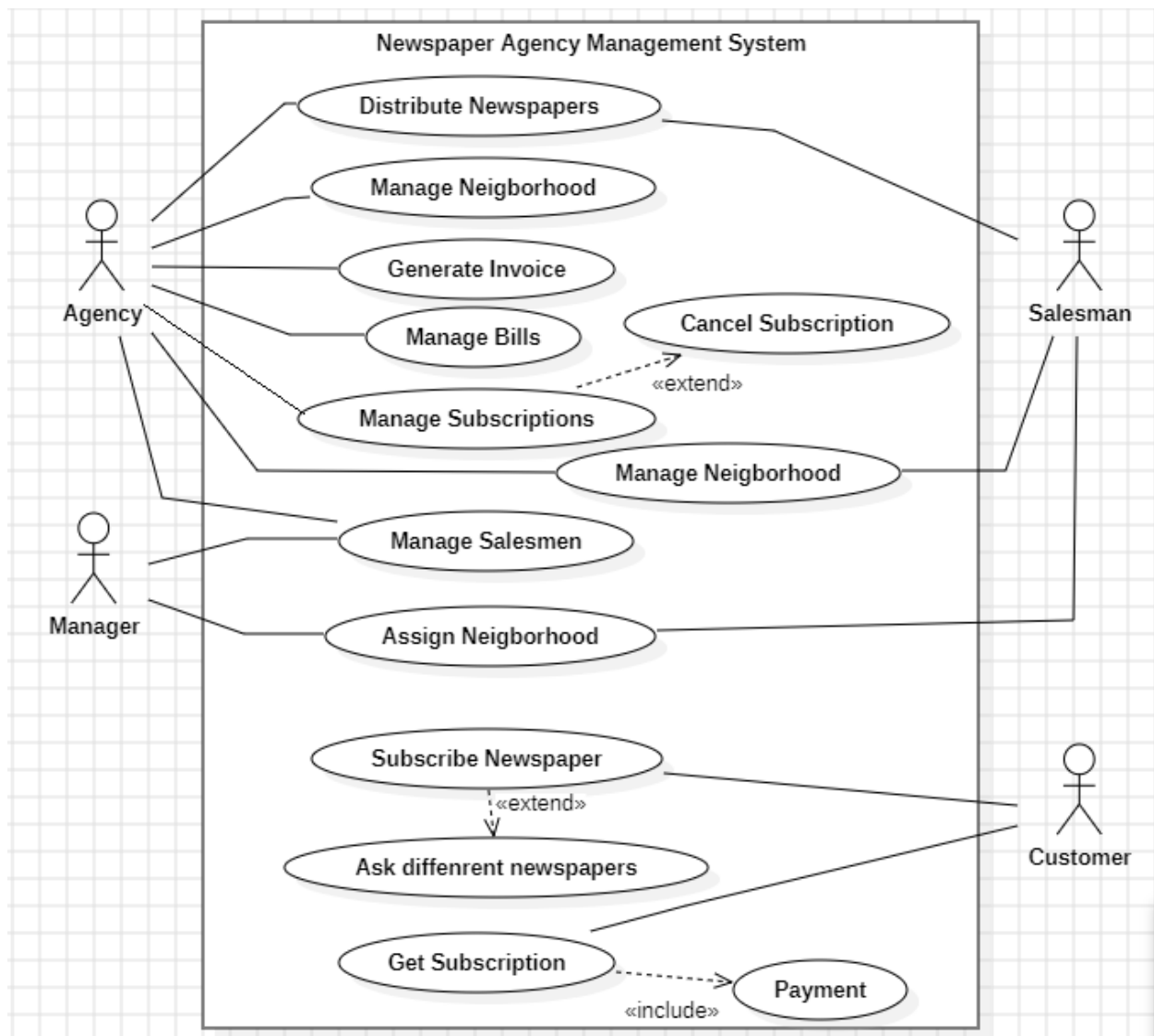# Second Assignment

Question 1
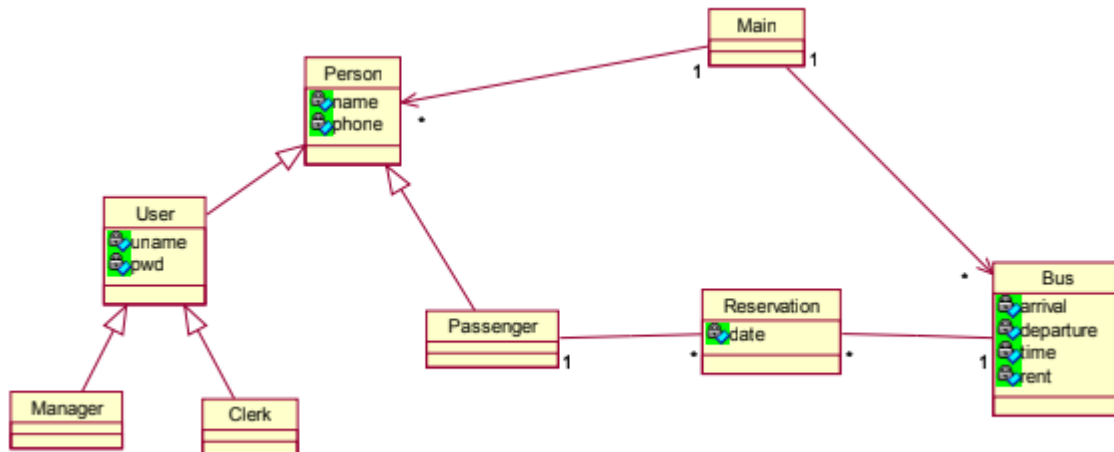
Give a use case diagram for the system given in the first

assignment Use some tool such as Star-UML or Rational Rose.

Submit a pdf file

Newspaper Agency Management System

- Distribute Newspapers
- Manage Neigborhood
- Generate Invoice
- Manage Bills
- Cancel Subscription
- «extend»
- Manage Subscriptions
- Manage Neigborhood
- Manage Salesmen
- Assign Neigborhood
- Subscribe Newspaper
- «extend»
- Ask diffenrent newspapers
- Get Subscription
- «include»
- Payment

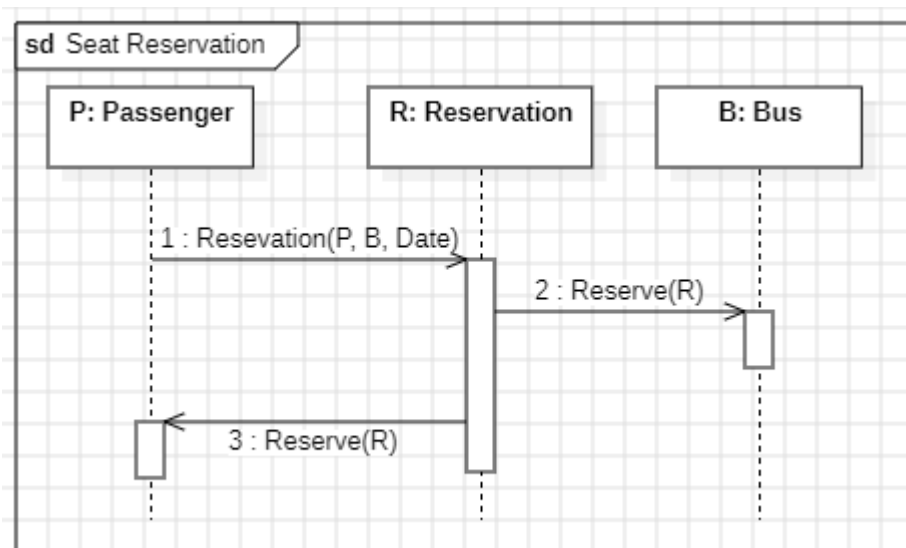Actors: Agency, Manager, Salesman, Customer

Question 2

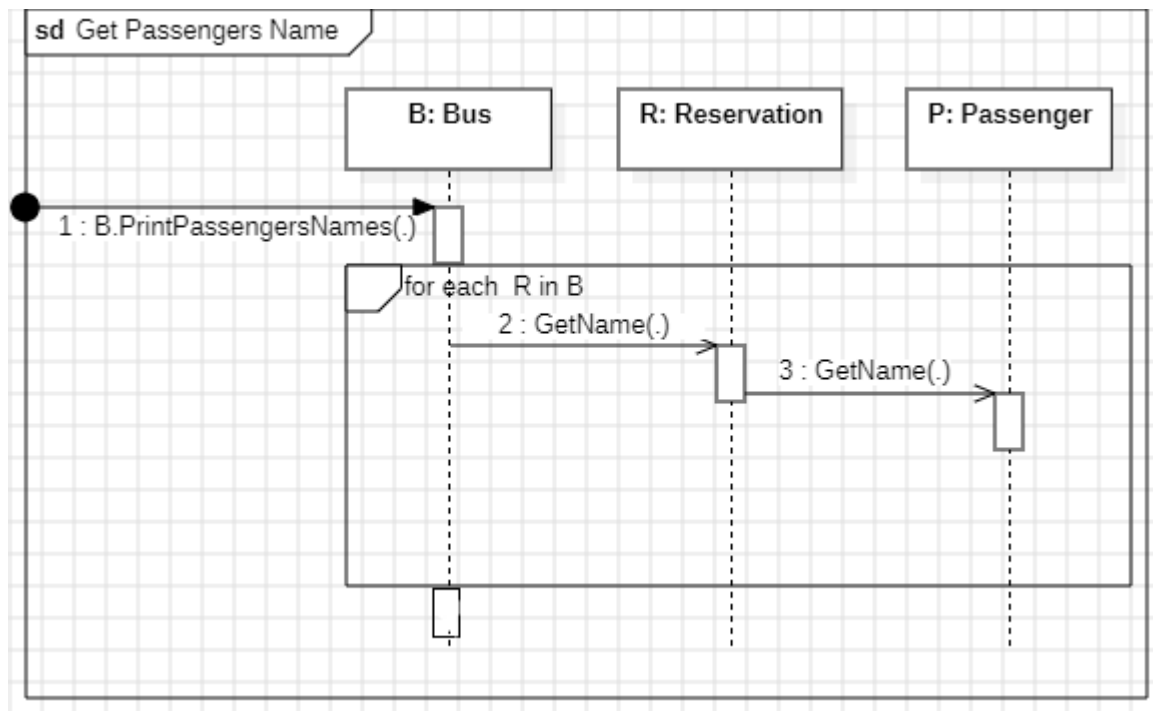Consider the following Bus information system:
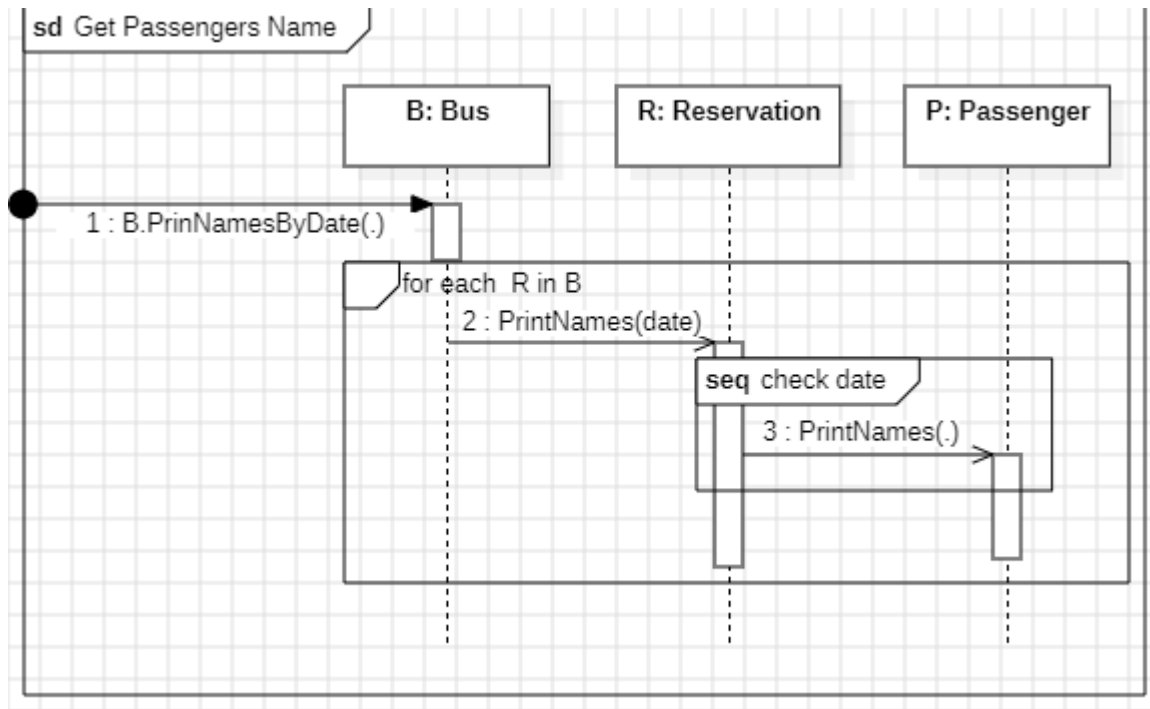

Now give a sequence diagram to

1. Reserve a seat for a passenger in a bus. Assume that the pointers to the passenger and bus objects are given

2. Get names of all the passengers of a given bus

sd Get Passengers Name

| B: Bus | R: Reservation | P: Passenger |

1 : B.PrintPassengersNames(.)

for each R in B

2 : GetName(.)

3 : GetName(.)

3. Print names of all the passengers whose seats reserved on a given date

sd Get Passengers Name

B: Bus   R: Reservation   P: Passenger

1 : B.PrinNamesByDate(.)

for each R in B

2 : PrintNames(date)

seq check date

3 : PrintNames(.)

Question 3

Give a use case description for the following use case:

    4. Withdraw cash from an ATM

    Solution:

Identifier	Q3-04
Name	Withdraw Cash
Description	A bank customer withdraws cash from their bank account using an ATM.
Priority	High
Actor(s)	ATM, Customer
Pre-condition(s)	• The bank customer must have a valid bank account. • The ATM machine must be operational and connected to the bank's network. • The bank customer should have a valid ATM card and PIN for authentication
Post-condition(s)	• The customer's account balance is updated after

		cash withdrawal.
		● The customer has received the requested cash.
		● A transaction record is generated and stored by the bank for both the customer and the bank's records.
Dependencies	Existence of bank account	

Typical Course of Action		
S#	**Actor Action**	**System Response**
1	Customer selects "Withdraw Cash"	ATM prompts for the desired withdrawal amount
2	Customer enters withdrawal amount	ATM verifies the requested amount and counts cash
3		ATM provides the cash, card and a transaction receipt
4	Customer takes the cash, card and receipt	ATM displays a transaction confirmation screen

Alternate Course of Action		
S#	**Actor Action**	**System Response**
5	Customer enters more amount than his/her balance	ATM checks if the account has sufficient funds
6		"Out of cash" OR "low balance" is displayed

5. Heat food using a microwave oven

Solution:

Identifier	Q3-05
Name	Heat food
Description	A user heats or cooks food using a microwave oven
Priority	Medium
Actor(s)	User

Pre-condition(s)	• The microwave oven is plugged in and functioning correctly • The user has access to the microwave oven and the food to be heated
Post-condition(s)	• The food is heated or cooked as per the user's settings
Dependencies	None

Typical Course of Action		
S#	**Actor Action**	**System Response**
1	User opens the microwave oven door	Microwave oven light turns on, and the cooking chamber is accessible
2	User places food item inside the oven and closes the door	
3	User sets a timer, heat level and press the start button	
4		Oven starts heating the food
5		Bell rings after the provided time
6	User collects the food from oven	