

The Little Inn

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We have worked on the case as a team, but due to some minor differences in the final program, I hand in this assignment individually (in order to reflect those differences in use cases and diagrams).

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Vision:

Mr. Brown and his staff wants more customers, either to stay there for longer and/or to eat at the Inn more often. To obtain this they will give an flawless service and they expect at least the same from the software.

Requirements:

The software is expected to take care of :

- working hours for staff
- commodity storage
- room reservations
- meal orders
- recipes

Glossary:

reservation = one reservation per day per customer

room = there are 6 rooms at the inn

Use cases:

1. Manage working hours
2. Cook food
3. Order meal
4. Read recipes
5. Manage Commodity storage Food
6. Reserve room
7. Manage Commodity storage Bed and Breakfast
8. Print lists concerning rooms and reservations (added later during the project)
9. Order beverages (added later during the project)

Use case 1:

Titel: Manage working hours

Scope: System, Workplanner.

Level: The software is expected to take care of: working hours for staff

Primary Actor: Mr.Brown

Stakeholders and Interest:

- Mr.Brown: Wants to simplify keeping control of his staffs working hours.
- Staff: Wants better view over shifts and right amount of salary for their hours.

Preconditions: The actor has logged and the access level is approved.

Main Success Scenario:

1. Actor types shifts into workplanner
2. Workplanner accumulates hours + wagers
3. Staff gets payed.

Extensions:

*a. At any time, system fails:

(To support recovery, System logs after each correction to the working hours)

1. Mr. Brown restarts system.
2. Select recovery, to start from when last change was made.
3. System works as intended, to relief some of Mr. Browns workload so they can provide better service.
4. Customers stays longer or visit more frequently.
5. System clock working hours for staff correctly

Use case 2:

Title: Cooks food.

Primary actors: Chef, Servant, Mr. Brown.

Main Success Scenario:

1. Actor receives a new order in the order meal system (use case 3).
2. Actor searches for the recipes in the recipe system (use case 4).
3. The recipe system shows recipes and ingredients needed for these recipes.
4. The Actor marks order completed after having cooked order.

Extensions:

3a. The ordered meal or a part of it is not available:

1. Actor receives a new order (use case 3)

Use case 3:

Title: Orders meal

Primary actors: Servant, Mr. Brown.

Main Success Scenario:

1. Actor types the order from a customer into the order meal system (Actor tells kitchen that a new order has come in.)
2. The order is activated.
3. The food is cooked (use case 2).
4. The order meal system shows the total cost.
5. The customer pays in external payment system.
6. The system prints a receipt to the customer.

Extensions:

1a: The customer wants to cancel the order.

1. The actor cancels the order in the system.

1b: The customer wants to update the order.

2. The actor updates the order in the system.

3a. The food is not cooked (use case 2):

1. Actor gets a new order from the customer and then starts from the beginning.

Use case 4:

Title: Read recipes

Primary Actor: Chef, Mr. Brown, Servant.

Main Success Scenario:

1. Actor searches for a recipe in the recipe system.
2. The recipe system controls that ingredients are in Commodity Storage Food (use case 5).
3. The recipe system shows the recipe.
4. The recipe system updates the amount of items in the Commodity Storage Food (use case 5)

Extension.

1a. Recipe not in system

1. Actor adds recipe to system.

2a.

1. Ingredients are not in stock.
2. The recipe system gives an error notification.
3. Actor receives a new order (use case 3).

Use case 5:

Title: Manage commodity storage Food

Primary Actor: Chef, Mr. Brown, Servant.

Main Success Scenario:

1. Actor types an item in the storage.
2. The system automatically categorizes the item.
3. The system updates amounts of categorized item in system.

Extension.

2a.

1. New item doesn't have category.
2. System gives error message.
3. Actor creates new category.

Use case 6:

Title: Reserve Rooms

Scope: Bed and Breakfast system

Level: user goal

Primary Actor: Mrs. Brown, Mr. Brown

Stakeholders:

- Mrs. Brown and Mr. Brown wants to make a reservation accurate and fast
- The Customer wants fast service with minimal effort.

Preconditions: The actor has logged in and the access level is identified and approved

Main Success Scenario:

1. The actor activates the system.
2. Customer asks for a room and Actor searches for a single or double room in system.
3. The system prints a list with available rooms.
4. Actor chooses a room on the list.
5. Actor enters date and customer's personal information.
6. The system generates a booking.
7. Actor registers new sheets and other items needed for a hotel room in the Bed and Breakfast Storage.
8. Actor takes payment from customer in external payment system.
9. Actor gives receipt to customer and hands out roomkey to customer.

Extensions:

2a. Room not available.

1. If not any available rooms, actor rejects guest.

2b. Actor chooses an other number than 1 (single room) or 2 (double room)

1. The system asks the actor to enter 1 or 2.
2. The system prints a list with available rooms.

Use case 7:

Title: Manage commodity storage Bed and Breakfast

Primary Actor: Mrs. Brown, Mr. Brown

Main Success Scenario:

1. Actor types an item in the storage.
2. The system automatically categorizes the item.
3. The system updates amount of categorized item in storage.

Extension.

2a.

1. New Item doesn't have category.
2. System gives error message.
3. Actor creates new category.

Use case 8:

Title: Print lists concerning rooms and reservations

Primary Actor: Mrs. Brown, Mr. Brown

Main Success Scenario:

1. Actor activates the system
2. Actor chooses the item on the menu.
3. The system prints the asked list.

Use case 9:

Title: Order beverages

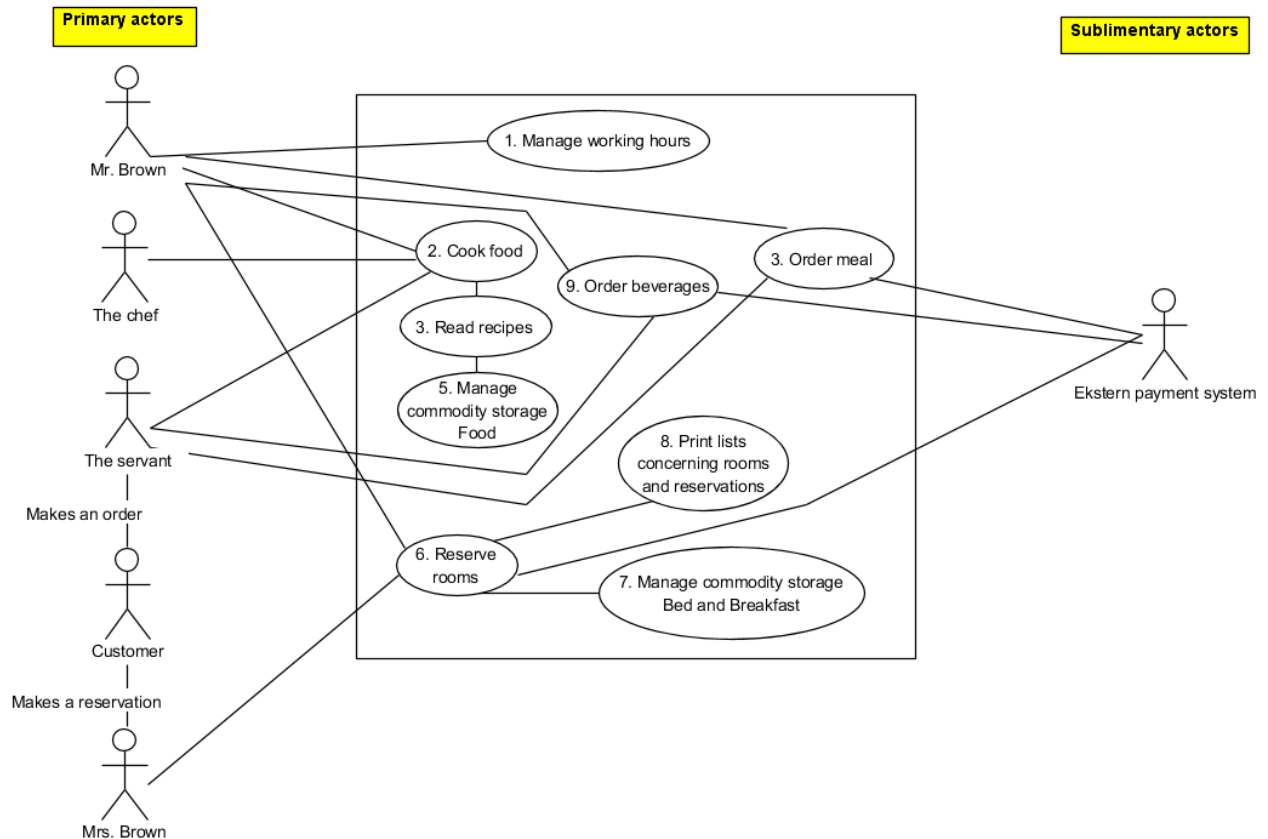
Primary actors: Servant, Mr. Brown.

Main Success Scenario:

1. Actor types the order from a customer into the order meal system (Actor serves the beverages to the customer)
2. Actor asks the customer if she or he wants more to drink
The actor repeats this until the customer doesn't want more beverages
3. Actor closes the order
4. The order meal system shows the total cost.
5. The customer pays in external payment system.
6. The system prints a receipt to the customer.

Use case diagram

This diagram also attached as appendix.



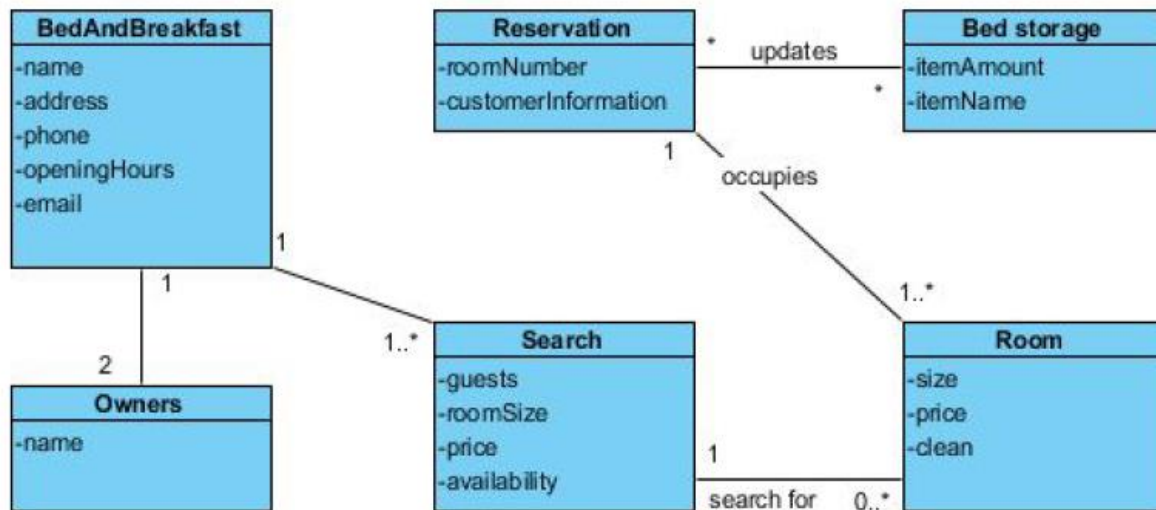
The list of extensions concerning use case 6 and 8

The system can not yet perform the following functions primarily due to lack of the programmers skills at this point of the education, secondary due to the lack of time. These extensions will be made at a later stage and they concern the use cases, the programmer has programmed.

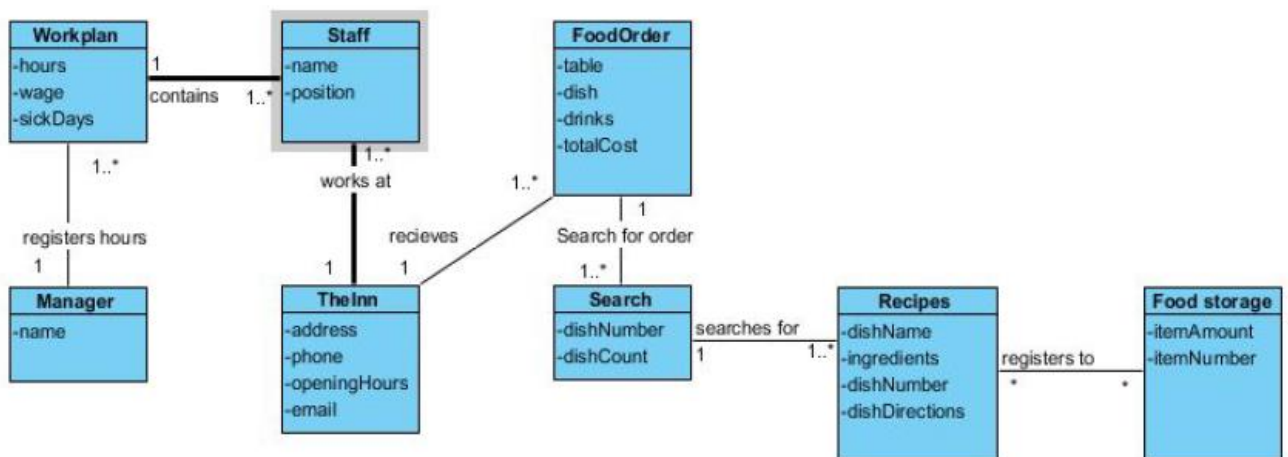
- The system can only perform a single reservation per the customer per day. There is not any calender or possibility to book in advance. Thus, the time aspect is lacking.
- There is not any database in which the system could save the lists of customers, reservations and rooms. The reservations exist only when the system is running.
- You can't choose to discontinue the reservation, but you have to book a room to continue. Otherwise, you need to run the system again and by doing that you delete the reservations.
- The menu is too limited. There are a lot of practical functions missing, for instance:
 1. Change the room
 2. Delete a reservation (in practise, make it invisible)
 3. Choose smoking/non-smoking room
- The payment information is typed manually to the external payment system. This should be made automatically from the system.
- The actor is asked to choose a room from the of available rooms, but if actor accidentally chooses an other number, the reservation is still made.
- The customer doesn't check out.

Domain models

Exercise 4: Make a Domain model that cover the accommodation part of this software.

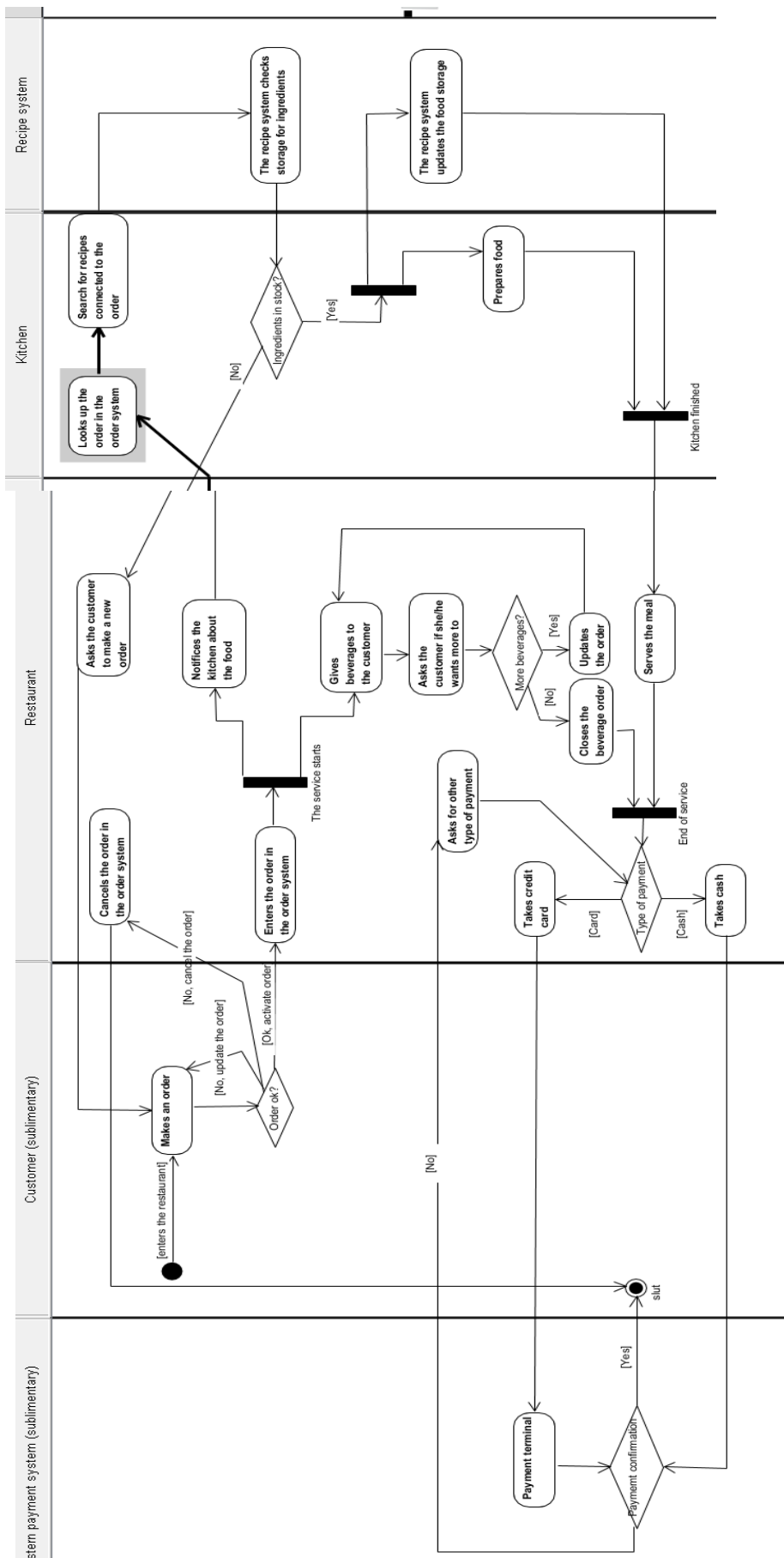


Exercise 5: Make a Domain model that cover the inn part of this software.



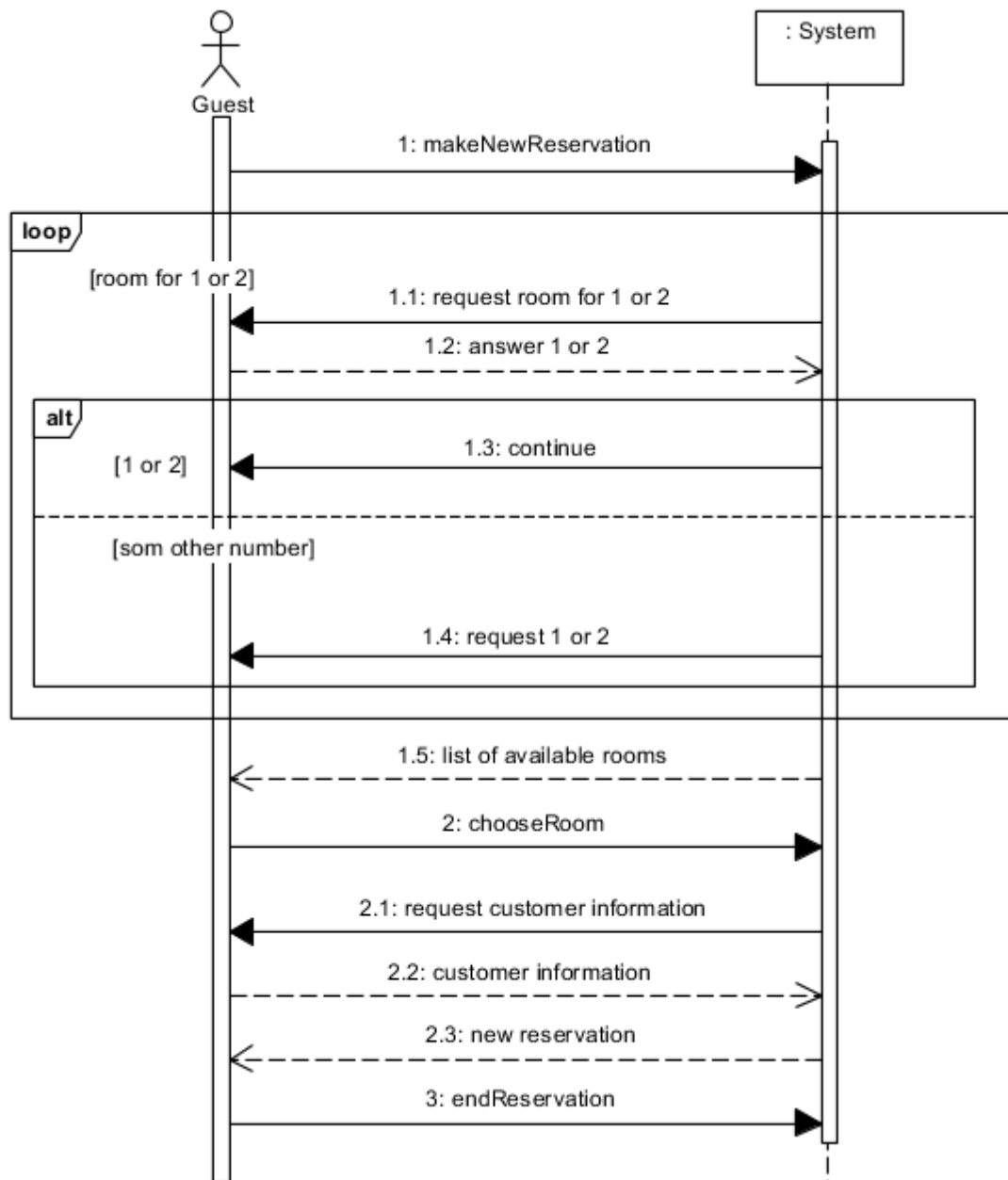
Activity diagram – The Inn

This diagram also attached as appendix.



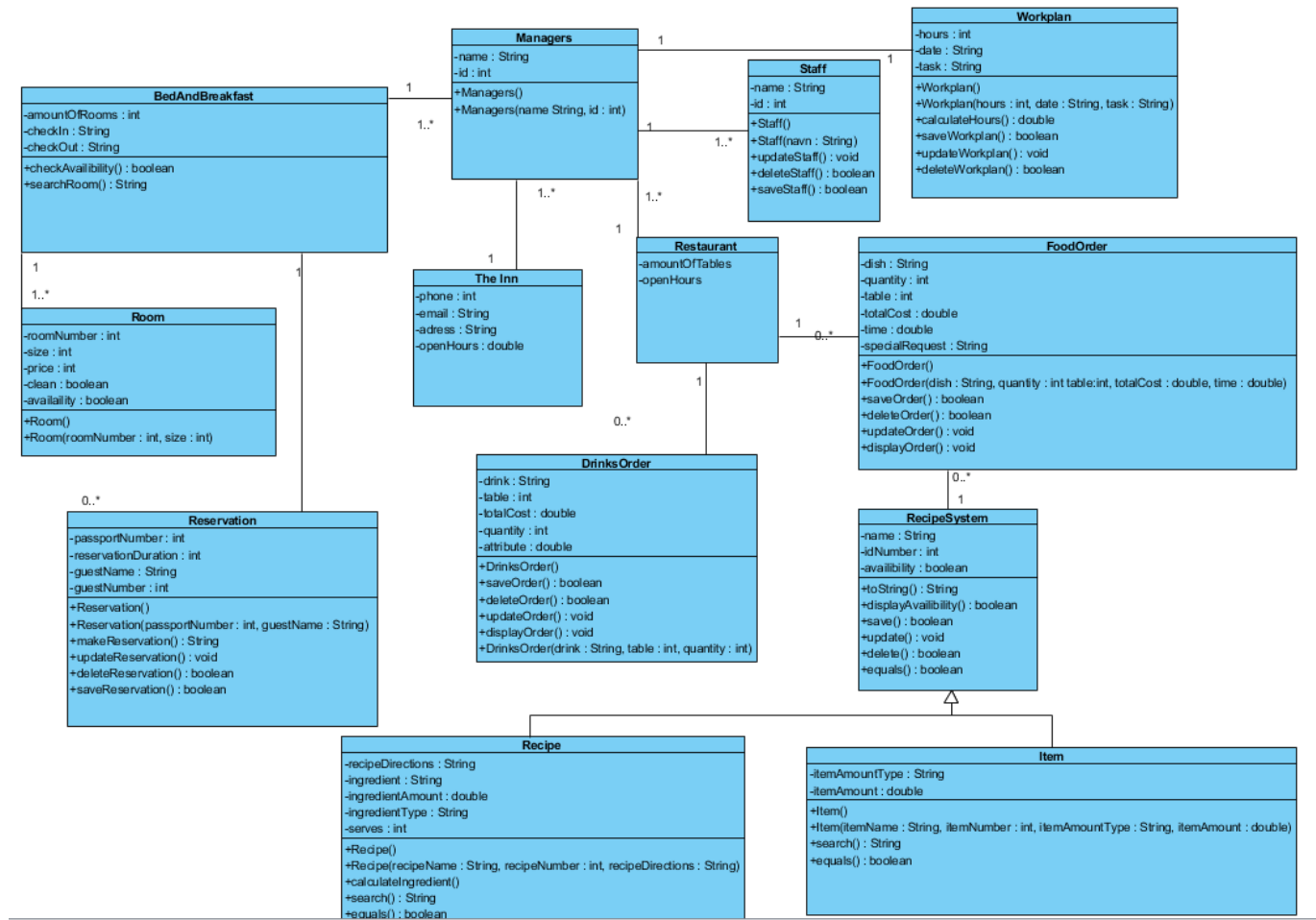
System Sequence Diagram – Bed and Breakfast - Reservation

This diagram also attached as appendix.



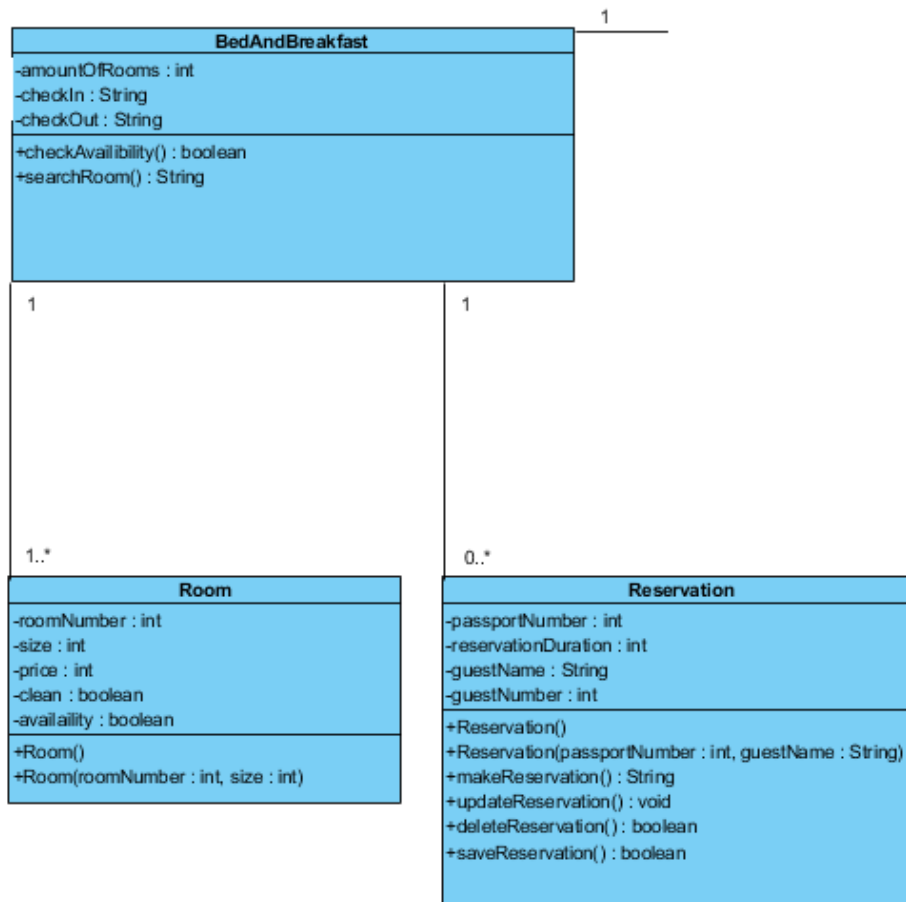
Class diagram

This diagram also attached as appendix.



Class diagram – Bed and Breakfast reservations – previous version

The class diagram – previous version



Class diagram – Bed and Breakfast reservations - final version

This diagram also attached as appendix.

