Hotel Reservation System

Use Cases Specification

Revision History

Date	Author	Description	Version
12/04/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	First version	v 1.0
17/04/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated according to Iteration1 reviews	v 1.1
03/05/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Added remaining Fully Dressed Format Use Cases.	v 1.2
08/05/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated according to Iteration2 reviews	v 1.3

30/05/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated UC 2, UC 5, fixed minor mistakes and added UC 10, update Use case model	v 1.4
05/06/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Updated according to Iteration3 reviews	v 1.5
20/06/2021	Irina Erofeeva Ömer Denizoğlu Durali Alagöz M.Mert Dervişoğulları	Update according to the current implementation UC 2, 3, 5, 7, 9	v1.6

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Use Case Model
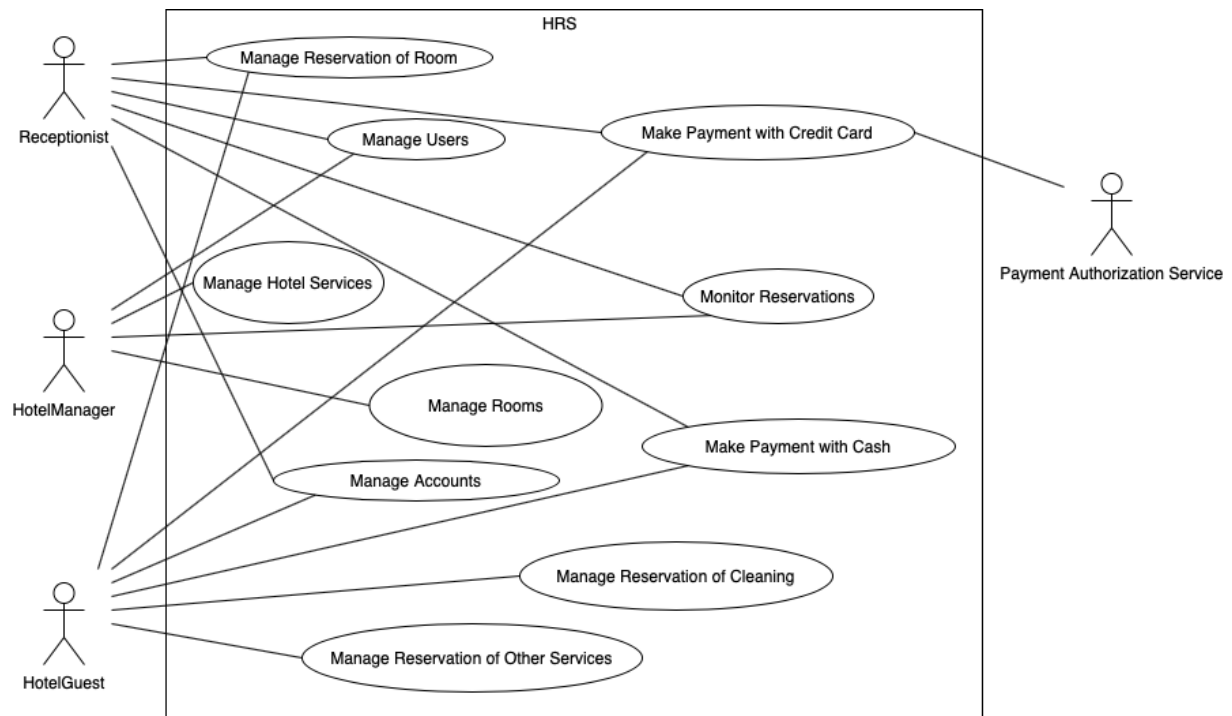
Figure 1 Use Case Model

Use Case 1 – Manage Accounts

The hotel guest, hotel manager and receptionists are using the Hotel Reservation System via personal account. Each user creates an account, providing personal information: full name, email, password, and any identity document information (driving licence, id, passport). When a user wants to make a change, he/she should login into the system, enter settings and update necessary information fields.

Use Case 2 – Manage Reservation of Room

The receptionist or the hotel guest uses the Hotel Reservation System to make reservations for the room. The receptionist or the hotel guest enters the exit date. The system presents all rooms with their availability. The system shows only the available rooms. The receptionist or the hotel guest chooses the room. The system saves the process.

Use Case 3 – Manage Reservation of Room Cleaning

The hotel guest uses the Hotel Reservation System to make reservations for cleaning from kiosks in the lobby or touch screen at their room. The system shows the available dates and hours for cleaning. The hotel guest chooses the date and time for cleaning. The system saves the process and shows the acknowledgment message.

Use Case 4 – Manage Reservation of Other Services

The hotel guest uses the Hotel Reservation System to make reservations for hotel services from kiosks in the lobby or touch screens at their room. The system shows the available services. The hotel guest chooses the service he/she wants to reserve. The system shows the available dates and hours for service. The hotel guest chooses the date and time for service. The system saves the process and shows the acknowledgment message.

Use Case 5 – Make Payment in Cash

The hotel guest or the receptionist uses the Hotel Reservation System to complete the checkout process. The hotel guest wants to make payment with cash, and the receptionist creates the leaving request. The system shows the total debt of the guest. The hotel guest makes payment with cash. The hotel guest gives the entry card to the receptionist. The system saves the information about changes and updates the room availability. After that the list of rooms is shown with their availability status.

Use Case 6 – Make Payment by Credit Card

The hotel guest or the receptionist uses the Hotel Reservation System to complete the checkout process. The hotel guest will handle payment from the kiosk with a credit card. He/she logs into the system via kiosk. After the successful login, the hotel guest sends the leaving request. The system shows the total debt of the guest. The hotel guest enters credit card information. After the Payment authorization system approves the payment the hotel guest gives the entry card to the receptionist. The system saves the information about changes and updates the room availability. After that the list of rooms is shown with their availability status.

Use Case 7 – Monitor Reservations

The receptionist or the system administrator uses the Hotel Reservation System to monitor the hotel. The system presents all rooms and services. If the user chooses a room to monitor the system shows the room details with total debt of room and reserved services by the guest. If the user chooses a service to monitor the system shows the reservations for that service.

Use Case 8 – Manage Hotel Services

The system admin uses the Hotel Reservation System to manage hotel services. The system lists all services with their status. The system admin changes the status or capacity of service. The system updates the capacity or status and updates all reservations.

Use Case 9 – Manage Users

The hotel manager or receptionist uses the Hotel Reservation System to manage other users' information. The list of currently registered users is available for both hotel manager or receptionist. The hotel manager can open a list of currently registered users and edit their access level: assign or remove receptionist rights.

Use Case 10 – Manage Rooms

The system admin uses the Hotel Reservation System to manage rooms. The system lists all rooms with their availability. The system admin changes the availability of rooms. The system

updates the availability and updates all rooms. Also, the system admin is able to introduce new rooms to the hotel and delete them when it is required.

Use Cases Fully Dressed Format

Use Case #1: Manage Accounts

Scope: Hotel Reservation System

Level: User Goal

Primary Actor: Hotel Guest, Hotel Administrator and Receptionists

Pre-conditions: The user is authenticated with privileges to manage accounts.

Post-conditions: One or more accounts are created/retrieved/updated/deleted.

Main Success Scenario:

1- User wants to retrieve information about his/her account in HRS.

2- User logs in to HRS.

3-HRS displays user information read-only.

Steps 2-3 are repeated until User indicates it is done.

Extensions:

2a - User does not have an account

1- User chooses the option to create an account.
2- HRS displays the "Create an account" screen.

3- User fulfils the form on the screen by providing full name, email, password, account type (hotel guest), and any identity document information (driving licence, id, passport).

3a - User fulfils the form and chooses the receptionist role.

1- Hotel manager continuous improvement process using **Use Case 9.**

3b - User fulfils the form with invalid data

1- HRS warns the User.
2- User fulfils the form with valid data.

4- HRS updates the accounts.

5- User logs in to HRS.

2b- User fulfils username and password fields with invalid data.

1- HRS warns the User.

2- User updates the username or password.

3a- User wants to update the User Information of the current account.

1- User chooses the option to update an account.

2- HRS displays the User Information read-write format.

3- User edits some information on the HRS.

3a- The required template for the information is not fulfilled correctly (i.e. some numbers for id numbers are missing).

1- HRS warns the User.

2- User corrects the mistakes.

3b- The given updated information is allocated to another User in the HRS.

1- HRS warns the User.

2- User updates the information.

4- HRS updates the accounts.

3b- User wants to delete the User Information of the current account

1- User chooses the option to delete an account.
2- HRS asks for confirmation.
3- User confirms his/her request.
   3a- The account has debt.
       2- User pays his/her debt using **Use Case 5 or Use Case 6.**
4- HRS updates the accounts.

3c- The hotel manager wants to confirm the receptionist account request.

1. HRS displays the requests.
2. The hotel manager chooses the request to approve.
3. HRS displays the request details
4. The hotel manager confirms the request.
5. HRS updates the accounts.

Use Case #2: Manage Reservation of Room

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Guest, Receptionist

Pre-conditions: The Receptionist is authenticated with privileges to manage reservation of rooms; Hotel guests are signed up and logged in to the system.

Post-conditions: One or more room reservations are created/retrieved/updated/deleted.

Main Success Scenario:

1. Hotel guests want to make a reservation room from the kiosk.
2. Hotel Guest enters the check-in and checkout date.
3. HRS displays rooms that are available between check-in and checkout date.
4. Hotel guests select a room.
5. HRS assigns entry card to the Hotel Guest, creates and assigns reservation to the entry card and updates occupied dates of the selected room.
6. Hotel guest wants to get an entry card from the receptionist.

Extensions:

1a. Hotel guest wants to make reservation room with receptionist:

1. The receptionist enters the check-in and checkout date
2. HRS displays rooms with their reservation status and users registered in the system.
3. The receptionist chooses the hotel guest from the list and selects the room with approval of the Hotel guest.
4. HRS updates the reservation status of the room, assigns selected users to the reservation and saves the process.
5. After the reservation of the room is done the receptionist gives the entry card.

1b. Hotel Guest already has reservation of the room and he/she wants to change room with receptionist:

1. HRS displays rooms with their reservation status.
2. The receptionist selects a room that needs to be changed.
3. The receptionist selects the new room.
4. HRS moves the information from the old room to the new room and saves the process.
5. After the reservation is updated, the receptionist takes an old entry card and gives the new entry card.

1c. Hotel Guest wants to cancel his/her reservation with help of receptionist:

1. HRS displays rooms with their reservation status.
2. The receptionist selects a room that needs to be changed.
3. The receptionist chooses to cancel the reservation
4. HRS changes the status of the reservation to inactive.

3a. HRS shows an empty list since there is no available room.

1. HRS shows an empty list of rooms with the message "No data".

    2. Hotel guests choose another check-in and checkout date.

Use Case #3: Manage Reservation of Room Cleaning

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Guest

Pre-conditions: Hotel guests are logged in to the system.

Post-conditions: Reservation of cleaning service for a certain period is created/retrieved/updated/deleted

Main Success Scenario:

    1. Hotel guest wants to retrieve information about currently reserved cleaning services for his/her room:

    2. HRS displays a schedule of the cleaning service assigned to the room.

Extensions:

1a. The hotel guest wants to make a reservation for cleaning service from the touch screen in his/her room or from a kiosk in the lobby.
1. HRS displays available time slots for reservation
2. Hotel guest selects a time slot and a date when he/she wants to have cleaning in the room.
    2a. Hotel guest cannot find an available slot
        1. HRS throws an error message.
        2. Hotel guest approves the error message.
        3. HRS returns to its initial screen.
        4. The hotel guest chooses another time slot.

3. HRS updates the schedule of the cleaning service in the room and updates available time slots for reservation.

1b. Hotel guest wants to update information about currently ordered cleaning services for his/her room:

1. HRS displays a schedule of the cleaning service assigned to the room.
2. The hotel guest chooses update option
3. HRS shows available time slots for the cleaning service
4. Hotel guest selects a new time slot and a date when he/she wants to have cleaning in the room
    4a. Hotel guests cannot find an available slot.
        5. HRS throws an error message.
        6. Hotel guests approve the error message.
        7. HRS returns to its initial screen.
        8. Hotel guests choose another time slot.

5. HRS updates the schedule of the cleaning service in the room and updates available time slots for reservation.

1c. Hotel guest wants to cancel current reservation of cleaning service for his/her room:

1. HRS displays a schedule of the cleaning service assigned to the room.
2. The hotel guest chooses cancel option
3. HRS cancels the schedule of cleaning service assigned to the room and updates available time slots for reservation.

Use Case #4: Manage Reservation of Other Services

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Guest

Pre-conditions: Hotel guests are logged in to the system.

Post-conditions: Reservation of hotel service for a certain period is created/retrieved/updated/deleted

Main Success Scenario:

1. Hotel guest wants to retrieve information about currently reserved hotel services for him/her:

2. HRS displays the reservations assigned to hotel guests.

Extensions:

1a. Hotel guests want to make a reservation for hotel service from the touch screen in his/her room or from a kiosk in the lobby.
1. HRS displays available hotel services.
2. Hotel guest chooses the hotel services he/she wants.
3. HRS displays available time slots for reservation
4. Hotel guests select a time slot and a range of dates when he/she want to make a reservation.
5. HRS updates the status of service and available time slots for reservation.

1b. Hotel guests want to update information about currently ordered hotel services.

1. HRS displays a schedule of the hotel service assigned to the room.
2. The hotel guest chooses the update option.
3. HRS shows available time slots for the chosen service.
4. Hotel guests select a new time slot and a range of dates when he/she wants to make a reservation.
5. HRS updates the status of service and available time slots for reservation.

1c. Hotel guests want to delete the current reservation of hotel service.

1. HRS displays a schedule of the hotel service assigned to hotel guests.

2. The hotel guest chooses the delete option.
3. HRS deletes the reservation of service and updates available time slots for reservation.

Use Case #5: Make Payment in Cash

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Guest, Receptionist

Pre-conditions: Receptionist is logged in to the system.

Post-conditions: Reservation the room is closed with status paid.

Main Success Scenario:

1. The hotel guest wants to make payment with cash.

2. The hotel guest gives the entry card to the receptionist and the receptionist creates a leaving request in HRS using the number of rooms.

3. HRS shows total debt on the hotel guest.

4. The hotel guest makes payment with cash; the receptionist adds money to the cashier and updates the status of the reservation as paid.

5. HRS updates the schedule of room reservations and annuls the debt on the entry card of the chosen user.

Extensions:

2a. The hotel guest cannot provide entry card to the receptionist because he/she lost it:

1. The receptionist finds the entry card entity in the HRS and tags it as lost.
2. The receptionist adds the additional fee for entry card loss to the total debt of the customer.

Use Case #6: Make Payment by Credit Card

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Guest, Receptionist

Pre-conditions: Receptionist and/or Hotel Guest are logged in to the system..

Post-conditions: Reservation the room is closed with status paid.

Main Success Scenario:

1. The hotel guest wants to complete the checkout process by making payment with a credit card in the kiosk.

2. HRS displays the total dept registered on the entry card of the hotel guest.

3. The hotel guest enters the credit card information.

4. HRS sends the information to the Payment authorization system.

5. Payment authorization system approves the payment.

6. The hotel guest gives an entry card to the receptionist, and the receptionist updates the status of the reservation as paid.

7. HRS updates the schedule of room reservations and annuls the debt on the entry card.

Extensions:

5a. Payment authorization system doesn't approve the payment due to wrong credit card information:

1. HRS shows the error message and requests to enter credit card information again.
2. The hotel guest enters the credit card information.

5b. Payment authorization system doesn't approve the payment due to insufficient funds on the card:

1. HRS shows the error message and offers to stop the checkout process or enter another card information.
2a. The hotel guest terminates checkout process
2b. The hotel guest enters another card information.

6a. The hotel guest cannot provide entry card to the receptionist because he/she lost it:

1. The receptionist finds the entry card entity in the system and tags it as lost.
2. The receptionist adds the additional fee for entry card loss to the total debt of the customer.

Step 1-6 repeated for the additional debt.

Use Case #7: Monitor Reservations

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Manager, Receptionist

Pre-conditions: User is logged in to the system with Hotel Manager or Receptionist.

Post-conditions: The information about additional services or rooms of the hotel is retrieved.
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Main Success Scenario:

1. The hotel manager or receptionist wants to see rooms with their status or services available in the hotel with their status.

2. HRS lists rooms with their status and hotel services with their status.
3. The hotel manager or receptionist chooses a room to monitor.
4. HRS displays rooms with reservations made by room and total debt of the room.
Steps 2-4 are repeated until User indicates it is done.

Extensions:

3a. The hotel manager or receptionist chooses hotel service to monitor.

1. HRS displays service with reservations made and status.

Use Case #8: Manage Hotel Services

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Manager

Pre-conditions: User is logged in to the system as Hotel Manager.

Post-conditions: The information about additional services of the hotel is retrieved/updated.

Main Success Scenario:

1. The hotel manager wants to see the list of services available in the hotel and their status.
2. HRS lists available additional services with their availability status.

Extensions:

1a. The Hotel Manager wants to update the information about one of the services available in the hotel:

1. HRS lists available additional services with their availability status.
2. The hotel manager chooses the service and chooses update option

3. The hotel manager changes the related information about the service, such as capacity or status and chooses save option

4. HRS updates the schedule and statuses of the additional hotel services.

5. HRS shows an acknowledgment message.

Use Case #9: Manage Users

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Manager

Pre-conditions: Hotel Manager has the privileges to make changes in the system and Hotel Manager must be logged in to the system. At least a request for creating a receptionist account should be made using **UC-1 Manage Account.**

Post-conditions: User information for receptionist is created/retrieved/updated/deleted by the Hotel Manager.

Main Success Scenario:

1. The Hotel Manager wants to approve a request for creating receptionists.

2. HRS displays the approval requests screen.

3. Hotel manager chooses to check the assignment of the request.

4. Hotel manager approves the request.

5. HRS updates the status of the request and activates the account.

6. HRS returns to its initial state.

Steps 2-6 are repeated until User indicates it is done.

Extensions:

1a. Hotel manager wants to change the receptionist account status as not approved.

1. HRS displays the list of receptionist accounts.
2. Hotel manager chooses an account to change status.
3. HRS changes the status of the account and returns to initial state.

4a. Hotel manager does not approve the request.

1. HRS deletes the request and returns to initial state.

Use Case #10: Manage Rooms

Scope: Hotel Reservation System (HRS)

Level: User Goal

Primary Actor: Hotel Manager

Pre-conditions: User is logged in to the system as Hotel Manager.

Post-conditions: The information about availability of the rooms is retrieved/updated.

Main Success Scenario:

1.The hotel manager wants to see the list of available rooms in the hotel and their status.
2. HRS lists available rooms with their availability status.

Extensions:

1a. The Hotel Manager wants to update the information about one of the room available in the hotel:

1. HRS lists available rooms with their availability status.
2. The hotel manager chooses the room and chooses update option

3. The hotel manager changes the related information about the room availability.

4. HRS updates the status of the room.

5. HRS shows an acknowledgment message.

1.b. The Hotel Manager wants to create a new room with it's availability status.

1. HRS lists available rooms with their availability status.

2. The hotel manager chooses the "add room" option.

3. The hotel manager creates a room with availability status.

4. HRS adds the created room to the room lists; hence the room list is updated.

5. HRS shows an acknowledgment message.

1.c. The Hotel Manager wants to delete a new room with its availability status.

1. HRS lists available rooms with their availability status.

2. The hotel manager selects a room from this list and chooses the "delete room" option.

3. The hotel manager deletes this room with availability status.

4. HRS deletes the selected room from the room lists, hence the room list is updated.

5. HRS shows an acknowledgment message.