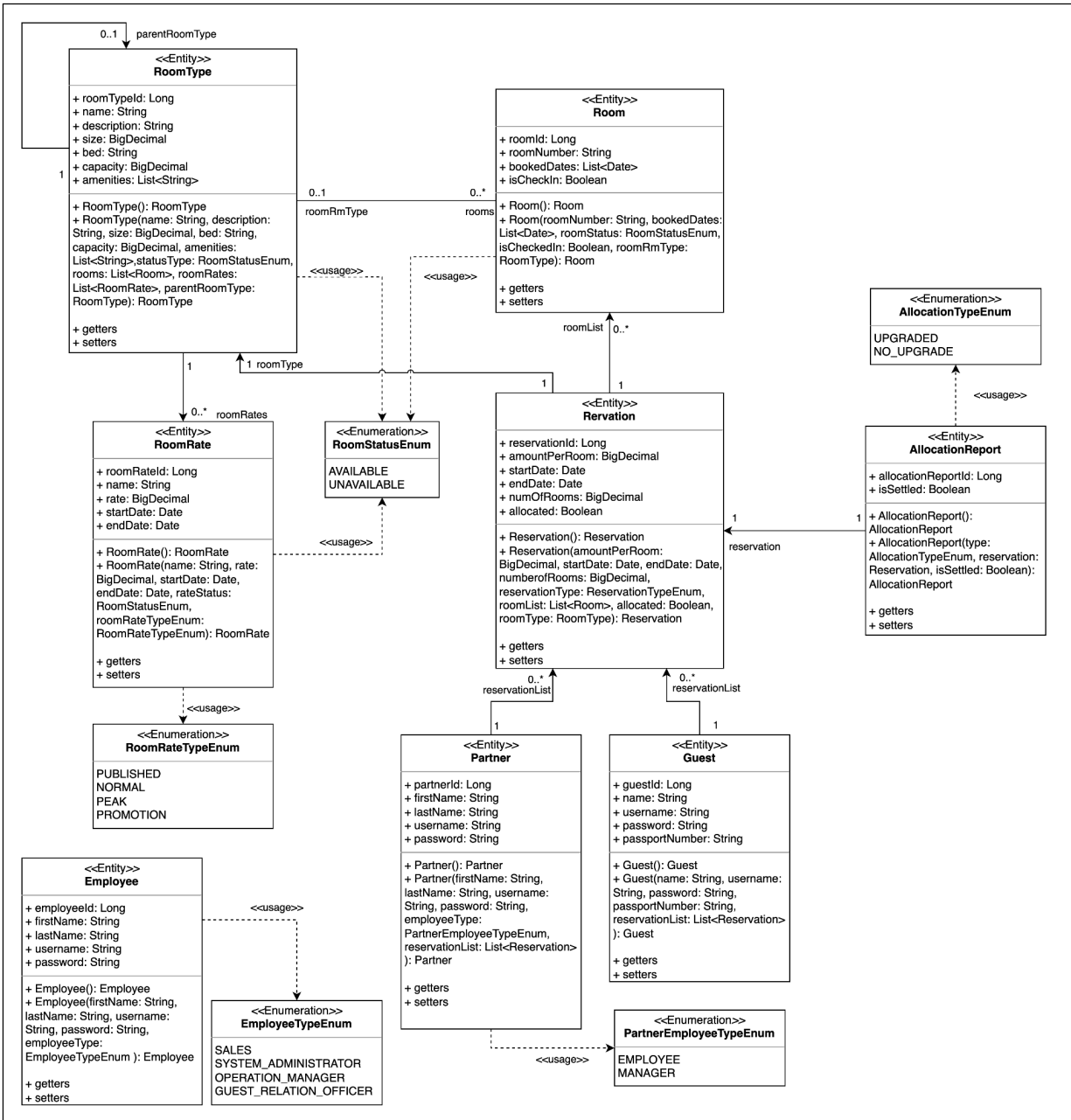


IS2103 Pair Project Group 18 Project Assumption

An informal UML diagram is shown below for reference of our development of our entities classes.



Business Rules, Rationale and Assumption

Use Case	Remarks
Employee Login	<ul style="list-style-type: none"> It is assumed that the employee remembers the account details they used when creating their account.
Employee Logout	<ul style="list-style-type: none"> It is assumed that the employee is currently logged in to the system.
Create New Employee	<ul style="list-style-type: none"> An employee account cannot be created with a username that is already in use.
View all employees	<ul style="list-style-type: none"> The System Administrator can only view the name and employee type of each employee account. They do not have access to the username or password of other employees. This restriction is in place because usernames and passwords are considered sensitive information and should not be readily accessible by the System Administrator.
Create New Partner	<ul style="list-style-type: none"> A partner account cannot be created with a username that is already in use. The password must be at least 8 characters in length.
View all partners	<ul style="list-style-type: none"> The System Administrator can only view the name and partner employee type of each partner account. They do not have access to the username or password of other partners. This restriction is in place because usernames and passwords are considered sensitive information and should not be readily accessible by the System Administrator.
Create new room type	<ul style="list-style-type: none"> The unique identifier of a room type is its name. The user is able to set a parent room type for the new room type for the purpose of room upgrading. (In the case of the highest tier room type, like Grand Suite in the test data, there is no need for a parent room type. The user is able to add 0, 1 or more room rates to the room type.
View room type details	<ul style="list-style-type: none"> When viewing the details of a specific room type, the operations manager is interested in all related information. This includes the room name, bed type, capacity, size, status type, description, amenities, and room rate. Additionally, the operations manager can access all associated room rates, including the specific rate types for each room type. This is important because it allows the operations manager to assess both room details and pricing, ensuring that suitable rooms are allocated based on their condition and rates for various dates.

Update room type	<ul style="list-style-type: none"> The user are able to view the room type details before the update of the room type details, the
Delete room type	<ul style="list-style-type: none"> A room type that has been used cannot be deleted, it will be marked as disabled. Only new room types that have not been used can be deleted.
View all room types	<ul style="list-style-type: none"> When viewing all room types, it is assumed that the operations manager is primarily interested in an overview, which includes the room type name. Detailed information is only shown when the operations manager accesses the room type's full details.
Create new room	<ul style="list-style-type: none"> A room can only be created if it is associated with a room type. All rooms created can be set to AVAILABLE or UNAVAILABLE. The assumption is that the hotel may choose to create a room in advance, with availability only beginning after a specified launch date. As the launch date approaches, the operations manager can update the room's status accordingly. The user must enter a unique room number, room status (AVAILABLE/UNAVAILABLE), and room type (mandatory).
Update room	<ul style="list-style-type: none"> The operations manager can update the room number, room type, and status, but cannot modify the check-in and check-out dates.
Delete room	<ul style="list-style-type: none"> A room that has been used cannot be deleted, it will be marked as disabled. Only new rooms that have not been used can be deleted.
View all rooms	<ul style="list-style-type: none"> When viewing all rooms, it is assumed that the operations manager is primarily interested in an overview, which includes the room number, room type and room status. Detailed information is only shown when the operations manager accesses the room's full details.
View room allocation exception report	<ul style="list-style-type: none"> If the current room is unavailable and there is a parent room type, the guest will be upgraded, and this will be indicated as 'UPGRADED'. If the current room is unavailable and there is no parent room type, the guest will not receive an upgrade, and it will be shown as 'NO_UPGRADE'.

Create new room rate	<ul style="list-style-type: none"> • A room rate cannot be created with a name that is already in use. • When creating a peak or promotion rate, the system will prompt the user to enter applicable dates. This process will generate a new room rate record. • Basic attributes should include name, rate type (published, normal, peak and promotion), rate per night, validity period (start/end dates for peak and promotion rate types only) • In the UML design, the RoomRate class does not need to know the association with RoomType, as multiple room types may link to the same rate. The Sales Manager will manage room rates independently and will not have access to view room types.
View room rate details	<ul style="list-style-type: none"> • When viewing the details of a specific room rate, the sales manager is interested in all related information. This includes the room rate name, room rate, rate status, start date and end date.
Update room rate	<ul style="list-style-type: none"> • The Sales Manager can update the room rate name, room rate amount, rate status, and start and end dates. • However, they cannot change the room rate type. This restriction exists due to the different date requirements: NORMAL and PUBLISHED room rates do not require a validity start or end date, while PEAK and PROMOTION rates do. Additionally, this rule ensures that each room is associated with only one NORMAL and one PUBLISHED room rate for accurate reservation pricing calculations.
Delete room rate	<ul style="list-style-type: none"> • If a room rate is associated with a room type, it cannot be deleted and will instead be disabled. If the Sales Manager wishes to delete the room rate, they must first request the Operations Manager to unlink the room type from the rate, enabling deletion.
View all room rates	<ul style="list-style-type: none"> • When viewing all room rates, it is assumed that the sales manager is primarily interested in an overview, which includes the room rate name. Detailed information is only shown when the sales manager accesses the room rate's full details.
Allocate room to current day reservation	<ul style="list-style-type: none"> • Allocations are only made on the reservation check-in date. For example, if a reservation check-in date is 11-11-2024, the allocation will occur solely on that day. • For testing purposes, we have developed a method to manually trigger the allocation. • If the reservation reserves 5 rooms but there is an error with allocating the rooms (e.g. only 4 rooms left and there is no higher room type left), the 4 rooms will be allocated for this reservation and

	<p>be marked as allocated. However, an allocation exception report will be created stating that there is NO_UPGRADE for it.</p> <ul style="list-style-type: none"> • If the reservation reserves 5 rooms but there is an error with allocating the rooms (e.g. only 4 rooms left, but have higher room type), the 4 rooms (of the original room type) will be allocated for this reservation and a higher room type room will be allocated for the reservation. The reservation will be marked as allocated. However, an allocation exception report will be created stating that it is UPGRADED.
Walk-in search room	<ul style="list-style-type: none"> • Guests will be prompted to register if they haven't already. Upon completing registration, they should be logged in automatically when conducting a physical walk-in room search.
Walk-in reserve room	<ul style="list-style-type: none"> • Walk-in guests will be automatically allocated rooms if they reserve after 2 pm on the same day. No allocation will occur if the reserved check-in date is not the same day.
Check-in guest	<ul style="list-style-type: none"> • It is assumed that all guests will check in only on their designated check-in date. • Guests can view reservations only for the current date and are permitted to check in only for that date. Upon checking in, the room number will be displayed to the guest. • All rooms in that reservation will be checked in simultaneously.
Check-out guest	<ul style="list-style-type: none"> • Guests can only check out rooms that have already been checked in. • The checkout process will be completed one room at a time.
Guest Login	<ul style="list-style-type: none"> • It is assumed that the guest remembers the account details they used when creating their account.
Register as guest	<ul style="list-style-type: none"> • A guest account cannot be created with a username that is already in use. • The passport number is requested to simulate a real hotel booking process, ensuring a more authentic experience.
Search hotel room	<ul style="list-style-type: none"> • It is assumed that the guest will enter the date in the correct format. • Guests who are not logged in or registered can only view the prices of room types for the specified start and end dates they provide. Guests who are logged in/registered can reserve a hotel room using the 'Reserve Hotel Room' use case.

Reserve Hotel Room	<ul style="list-style-type: none"> The total price for a reservation is locked in upon successful booking. Any changes to the room rates—rate per night for all four rate types—or adjustments to the validity period of PEAK or PROMOTION rates will not impact the price of completed reservations.
View My Reservation Details	<ul style="list-style-type: none"> The guest will first review all their reservations to identify the relevant reservation ID. Each reservation will display comprehensive details, including the reservation ID, type, room type, number of rooms, start date, end date, and total amount.
View All My Reservations	<ul style="list-style-type: none"> It is assumed that the guest is particularly interested in viewing the start date, end date, and total cost of all their reservations.
Partner Login	<ul style="list-style-type: none"> It is assumed that the partner remembers the account details.
Partner search room	<ul style="list-style-type: none"> It is assumed that the partner will enter the date in the correct format. Partners who are Employees can only view the prices of room types for the specified start and end dates they provide. Partners who are Managers can search and create reservations using the 'Reserve Hotel Room' use case.
Partner Reserve Room	<ul style="list-style-type: none"> The total price for a reservation is locked in upon successful booking. Any changes to the room rates—rate per night for all four rate types—or adjustments to the validity period of PEAK or PROMOTION rates will not impact the price of completed reservations.
View Partner Reservation Details	<ul style="list-style-type: none"> The partner will first review all their reservations to identify the relevant reservation ID. Each reservation will display comprehensive details, including the reservation ID, type, room type, number of rooms, start date, end date, and total amount.
View All Partner Reservation	<ul style="list-style-type: none"> It is assumed that the partner is particularly interested in viewing the start date, end date, and total cost of all their reservations.