In [1]:

```
class Room:
    def __init__(self, number, capacity, price_per_night):
        self.number = number
        self.capacity = capacity
        self.price_per_night = price_per_night
        self.is_reserved = False

    def __str__(self):
        return f"Room {self.number} (Capacity: {self.capacity}, Price per Night: ${self.price_per_night})"

class Hotel:
    def __init__(self, name):
        self.name = name
        self.rooms = []

    def add_room(self, room):
        self.rooms.append(room)

    def find_available_rooms(self, start_date, end_date, capacity):
        available_rooms = []
        for room in self.rooms:
            if not room.is_reserved and room.capacity >= capacity:
                available_rooms.append(room)
        return available_rooms

    def make_reservation(self, room_number, start_date, end_date, guest_name):
        for room in self.rooms:
            if room.number == room_number and not room.is_reserved:
                reservation = Reservation(room, start_date, end_date, guest_name)
                print(f"Reservation successful: {reservation}")
                return
        print("Room not available for the specified dates or does not exist.")

class Reservation:
    def __init__(self, room, start_date, end_date, guest_name):
        self.room = room
        self.start_date = start_date
        self.end_date = end_date
        self.guest_name = guest_name
        room.is_reserved = True

    def __str__(self):
        return f"Reservation for {self.guest_name} in Room {self.room.number} from {self.start_date} to {self.e


hotel = Hotel("Example Hotel")

while True:
    print("\n1. Add Room\n2. Make Reservation\n3. Exit")
    choice = input("Enter your choice: ")

    if choice == "1":
        number = int(input("Enter room number: "))
        capacity = int(input("Enter room capacity: "))
        price_per_night = float(input("Enter price per night: "))
        hotel.add_room(Room(number, capacity, price_per_night))
        print("Room added successfully.")

    elif choice == "2":
        room_number = int(input("Enter room number: "))
        start_date = input("Enter start date (YYYY-MM-DD): ")
        end_date = input("Enter end date (YYYY-MM-DD): ")
        guest_name = input("Enter guest name: ")
        hotel.make_reservation(room_number, start_date, end_date, guest_name)

    elif choice == "3":
        break

    else:
        print("Invalid choice. Please try again.")
```

```
1. Add Room
2. Make Reservation
3. Exit
Enter your choice: 1
Enter room number: 101
Enter room capacity: 3
Enter price per night: 1000
Room added successfully.

1. Add Room
2. Make Reservation
3. Exit
Enter your choice: 2
Enter room number: 101
Enter start date (YYYY-MM-DD): 15-05-2024
Enter end date (YYYY-MM-DD): 30-05-2024
Enter guest name: jhon
Reservation successful: Reservation for jhon in Room 101 from 15-05-2024 to 30-05-2024

1. Add Room
2. Make Reservation
3. Exit
Enter your choice: 3
```

In [ ]: