

```
class HotelManagementSystem:

    def __init__(self):

        self.rooms = {}

        self.bookings = []


    def add_room(self, room_number, room_type,
price):

        self.rooms[room_number] = {

            'room_type': room_type,

            'price': price,

            'is_booked': False

        }

        print(f"Room {room_number} added
successfully.")


    def list_rooms(self):

        for room_number, details in
```

```
self.rooms.items():
    status = "Booked" if details['is_booked']
else "Available"

    print(f"Room {room_number}:
{details['room_type']} at ${details['price']} per
night - {status}")

def book_room(self, customer_name,
room_number):
    if room_number in self.rooms and not
self.rooms[room_number]['is_booked']:
        self.rooms[room_number]['is_booked'] =
True
        booking = {
            'customer_name': customer_name,
            'room_number': room_number
        }
```

```
        self.bookings.append(booking)

        print(f"Room {room_number} booked
successfully for {customer_name}.")

    else:

        print(f"Room {room_number} is either not
available or already booked.")

    def check_out(self, room_number):

        if room_number in self.rooms and
self.rooms[room_number]['is_booked']:

            self.rooms[room_number]['is_booked'] =
False

            self.bookings = [b for b in self.bookings if
b['room_number'] != room_number]

            print(f"Room {room_number} checked out
successfully.")

        else:
```

```
print(f"Room {room_number} is not  
currently booked.")
```

```
def list_bookings(self):  
    if not self.bookings:  
        print("No current bookings.")  
    else:  
        for booking in self.bookings:  
            print(f"Room {booking['room_number']}  
is booked by {booking['customer_name']}.")
```

```
def main():  
    hms = HotelManagementSystem()  
    while True:  
        print("\nHotel Management System")  
        print("1. Add Room")  
        print("2. List Rooms")
```

```
print("3. Book Room")
```

```
print("4. Check Out")
```

```
print("5. List Bookings")
```

```
print("6. Exit")
```

```
choice = input("Enter your choice: ")
```

```
if choice == '1':
```

```
    room_number = input("Enter room  
number: ")
```

```
    room_type = input("Enter room type: ")
```

```
    price = float(input("Enter price per night:  
"))
```

```
    hms.add_room(room_number, room_type,  
price)
```

```
elif choice == '2':
```

```
    hms.list_rooms()
```

```
elif choice == '3':
```

```
    customer_name = input("Enter customer  
name: ")
```

```
    room_number = input("Enter room  
number: ")
```

```
    hms.book_room(customer_name,  
room_number)
```

```
elif choice == '4':
```

```
    room_number = input("Enter room  
number: ")
```

```
    hms.check_out(room_number)
```

```
elif choice == '5':
```

```
    hms.list_bookings()
```

```
elif choice == '6':
```

```
hms.list_bookings()
```

```
elif choice == '6':
```

```
    print("Exiting...")
```

```
    break
```

```
else:
```

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

```
if __name__ == "__main__":
```

```
    main()
```