



# SMART TRAINERS

Elsa Qazi Campus Old Campus  
Colony, Thandi Sarak, HYD

## Internship Hands-on Task No. 2

**Due Date:**

**25/01/2026 Batch-02 Smart Trainers**

**Marks Assigned: 25**

### Assignment Submission Instructions:

- Ensure all tasks are finished and correct.
- Save Your File in this format: PDF/MS Word.
- File name: (Your Name)
- Late submissions may not be accepted.
- Submit your assignment on google classroom.

### Assignment/Task:

**Assignment: HOTEL RESERVATION SYSTEM**

#### **Project Overview:**

This project is a basic hotel reservation system created using simple classes, objects, and functions. It helps hotels manage rooms, register guests, handle bookings, calculate bills, and perform guest check-in and check-out. The system is beginner-friendly and easy to understand.

#### **Main Parts of the System:**

##### **1. Room Class:**

The Room class is used to create rooms in the hotel. Each room stores a **room number**, **room price**, and **room status (available or occupied)**. Rooms are available by default. This helps the system track which rooms exist, which are free, and which are booked.

##### **2. Guest Class:**

The Guest class stores guest details such as **the guest's name and phone number**. When a **guest books a room, their information is saved**. This allows the hotel to know who is staying and which room belongs to each guest.

##### **3. Hotel Class:**

The Hotel class acts as the main controller of the system. **It manages all rooms and bookings. It includes functions to add rooms, show available rooms, book rooms, generate bills, and check guests out.** It works like the hotel's management office.

How the System Works:

#### **Step 1: Add Rooms**

The hotel creates and stores room objects.

#### **Step 2: Show Available Rooms**

The system displays only rooms that are currently free.

#### **Step 3: Guest Booking**

[Info.smarttrainers@gmail.com](mailto:Info.smarttrainers@gmail.com)  
[www.smarttrainers.org](http://www.smarttrainers.org)

+923120279418

The system checks if the room exists and is available. If it is free, the guest is assigned the room. If not, the booking is denied.

#### **Step 4: Generate Invoice**

The system calculates the total bill using the formula:  
 $\text{Room Price} \times \text{Number of Nights Stayed}$ .

#### **Step 5: Check-Out Guest**

When the guest leaves, the system clears the booking and marks the room as available again.

#### **What This System Demonstrates:**

This project teaches how classes, objects, and functions are used together. It helps beginners understand OOP structure, logic building, and how to organize a real-world **system in code**.

#### **Why This Project is Useful:**

It provides practical learning for students. It explains hotel operations, programming logic, and data handling. It is a great starting point before moving on to advanced OOP or web-based reservation systems.