**HotelImpl.java**

import java.rmi.server.UnicastRemoteObject;   
import java.rmi.RemoteException;   
import java.util.\*;   
   
public class HotelImpl extends UnicastRemoteObject implements Hotel {   
    private Map<String, Integer> bookings;   
    private int availableRooms;   
   
    public HotelImpl(int totalRooms) throws RemoteException {   
        super();   
        bookings = new HashMap<>();   
        availableRooms = totalRooms;   
    }   
   
    public synchronized String bookRoom(String guestName) throws   
RemoteException {   
        if (bookings.containsKey(guestName)) {   
            return "Guest already has a booking.";   
        }   
        if (availableRooms > 0) {   
            bookings.put(guestName, bookings.size() + 1);   
            availableRooms--;   
            return "Room booked for " + guestName;   
        }   
        return "No rooms available.";   
    }   
   
    public synchronized String cancelBooking(String guestName) throws   
RemoteException {   
        if (bookings.containsKey(guestName)) {   
            bookings.remove(guestName);   
            availableRooms++;   
            return "Booking cancelled for " + guestName;   
        }   
        return "No booking found for " + guestName;   
    }   
} 

**Hotel.java**  
  
  
import java.rmi.Remote;   
import java.rmi.RemoteException;   
   
public interface Hotel extends Remote {   
    String bookRoom(String guestName) throws RemoteException;   
    String cancelBooking(String guestName) throws RemoteException;   
}  
  
  
**HotelServer.java**  
  
import java.rmi.Naming;   
import java.rmi.registry.LocateRegistry;   
   
public class HotelServer {   
    public static void main(String[] args) {   
        try {   
            LocateRegistry.createRegistry(1099); // Start RMI registry   
            HotelImpl hotel = new HotelImpl(5); // 5 rooms total   
            Naming.rebind("HotelService", hotel);   
            System.out.println("Hotel Server is ready...");   
        } catch (Exception e) {   
            System.out.println("Server Error: " + e);   
        }   
    }   
}   
  
  
**HotelClient.java**  
  
  
import java.rmi.Naming;   
import java.util.Scanner;   
   
public class HotelClient {   
    public static void main(String[] args) {   
        try {   
            Hotel hotel = (Hotel)   
Naming.lookup("rmi://localhost/HotelService");   
            Scanner sc = new Scanner(System.in);   
            while (true) {   
                System.out.println("\n1. Book Room\n2. Cancel Booking\n3.   
Exit");   
                System.out.print("Choice: ");   
                int choice = sc.nextInt();   
                sc.nextLine(); // Consume newline   
   
                if (choice == 1) {   
                    System.out.print("Enter Guest Name: ");   
                    String name = sc.nextLine();   
                    System.out.println(hotel.bookRoom(name));   
                } else if (choice == 2) {   
                    System.out.print("Enter Guest Name to Cancel: ");   
                    String name = sc.nextLine();   
                    System.out.println(hotel.cancelBooking(name));   
                } else {   
                    break;   
                }   
            }   
            sc.close();   
        } catch (Exception e) {   
            System.out.println("Client Error: " + e);   
        }   
    }   
}   
  
**# to Run the program**  
install Java for windows   
  
javac \*.java  
javac --version  
  
start rmiregistry   
java HotelServer  
  
java HotelClient