

# CSE321 Class Test [Process Synchronization]

Marks: 5

Time: 20 min

## Specification

In this problem you have to simulate patient activities in a hospital. There are  $n$  patients. Each of them will consult with Dr. X. To consult with Dr. X, the weight and height need to be measured for each patient. These measurements are done in room no. 1. In room 1, there can be **at most 3** patients simultaneously measuring their height and weight. After measuring these, **only 1** patient can enter the chamber of Dr. X. **Simulate** this scenario. **Take  $n$  as input.**

## Sample I/O

### Input:

3

### Output:

User 1 entered room 1  
User 2 entered room 1  
User 1 measuring height  
User 2 measuring height  
User 3 entered room 1  
User 1 measure weight  
User 2 measuring weight  
User 1 leaving room 1  
User 1 entering Dr. X's chamber  
User 1 consulting with Dr. X  
User 1 leaving Dr. X's chamber  
User 3 measuring height  
User 2 leaving room 1  
User 2 entering Dr. X's chamber  
User 3 measuring weight  
User 3 leaving room 1  
User 2 consulting with Dr. X  
User 2 leaving Dr. X's chamber  
User 3 entering Dr. X's chamber  
User 3 consulting with Dr. X  
User 3 leaving Dr. X's chamber