

This is a GROUP activity.

1. Draw the UML class diagram to model the following:

A dormitory has a name and has several rooms. When a dormitory is built, the name and the number of rooms should be provided. In some cases, the maximum capacity of the rooms is also provided. If there is no maximum capacity set, each room can accommodate at most 6 guests. The rooms are then automatically created and added to the dormitory, numbered from 1, 2, 3, and so on, representing the room number. Once the room number is assigned to the created room, this information cannot be edited anymore.

The dormitory can accept guests into a given room number. Each guest has a name and nationality. If the capacity is full or an invalid room number is provided, the guest will not be added and this method returns false. Otherwise, this method returns true.

The dormitory also has a method to return the guests in a given room number. If an invalid room number is provided, the method will return null.

[Hint: The partial code for class Room is provided in the problem. This should give you an idea of what the class Room contains.]

2. Implement the classes you designed in item 1. Complete the requirements for class Room (check the Room-template.java and rename it as needed)
3. Complete the code for DormDriver.java (check DormDriver-template.java and rename as needed). Refer to the comments for the tasks that have to be accomplished.