HotelOccupancy Project

Hotel managers regularly have to calculate a hotel’s occupancy rate, a vital statistic to determine the hotel’s success. A hotel’s occupancy rate is calculated as follows:

*Occupancy rate = number of rooms occupied /total number of rooms*

Write a program that calculates the occupancy rate for your hotel.

* Start by asking the number of floors in the hotel.
* A **loop should then iterate once for each floor.**
  + During each iteration, the loop should ask the user for
    - the number of rooms on the floor, and
    - the number of those rooms occupied.
* After all the iterations, the program should display
  + the number of rooms in the hotel,
  + the number of occupied rooms,
  + the number of vacant rooms, and
  + the occupancy rate for the hotel

**Input Validation**:

* Do not accept a value less than 1 for the number of floors.
* Do not accept a number less than 10 for the number of rooms on a floor.
* Do not accept a number of rooms occupied than are on the floor.
* (You need THREE validation loops).

**Sample Output Below**

**Your output MIGHT look similar to this:**

**Bryde Hotel Occupancy Calculator**

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**How many floors are in this hotel?===> 3**

**How many rooms are on floor 1?=======> 20**

**Out of 20 rooms on floor 1,**

**how many are occupied?===========> 17**

**How many rooms are on floor 2?=======> 20**

**Out of 20 rooms on floor 2,**

**how many are occupied?===========> 12**

**How many rooms are on floor 3?=======> 15**

**Out of 15 rooms on floor 3,**

**how many are occupied?===========> 7**

**Occupancy Rate Calculations**

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**Total Rooms = 55**

**Occupied Rooms = 36**

**Vacant Rooms = 19**

**Occupancy Rate = 65.45%**