

## COSC 1336 –Programming Fundamentals I

### Program 6 – Repetition Structures

Write a program that calculates the occupancy rate for a hotel. The program should start by asking the user how many floors the hotel has. A loop should then iterate once for each floor. In each iteration, the loop should ask the user for the number of rooms on the floor and how many of them are occupied. After all the iterations, the program should display how many rooms the hotel has, how many of them are occupied, how many are unoccupied, and the percentage of rooms that are occupied. The percentage may be calculated by dividing the number of rooms occupied by the number of rooms.

**Run your program twice with the following data:**

Run 1	Run 2
Floors on the hotel: 5	Floors on the hotel: 6
Rooms on floor 1: 10 Rooms occupied: 5	Rooms on floor 1: 12 Rooms occupied: 8
Rooms on floor 2: 12 Rooms occupied: 11	Rooms on floor 2: 11 Rooms occupied: 11
Rooms on floor 3: 8 Rooms occupied: 4	Rooms on floor 3: 10 Rooms occupied: 5
Rooms on floor 4: 10 Rooms occupied: 0	Rooms on floor 4: 10 Rooms occupied: 3
Rooms on floor 5: 12 Rooms occupied: 8	Rooms on floor 5: 9 Rooms occupied: 2
	Rooms on floor 6: 10 Rooms occupied: 0

Run the program two times with the data above and save the output as **Program6-output.py** (Do a "Save As" in the Python Shell Window and it will save as a ".py" file. See Appendix B of your Textbook for more details). Create a folder named, **Fullname\_Program6**. Copy your source code and the output file to the folder. Zip the folder, as a ".zip" file, and upload it to Blackboard.