CSI-240 Assignment 2

House Class

Choose member data, implement missing functions, and add new private functions as needed to the House class.

* Open assignment2.zip for update code and files.
* DO NOT CHANGE: main.cpp/Room.h/Room.cpp/public interface for the House Class
* Add member data to store the Rooms which are added – you must use object composition!
* Implement all functions in the House class which are currently stubs:

bool addRoom( const Room& theRoom );

int getNumBedrooms();

int getNumBathrooms();

int getNumKitchens();

int getNumLivingrooms();

int getTotalSquareFootage();

int getTotalVolume();

bool isValid();

string enumerateRooms();

* Add any new private functions which will help in implementing the public interface of the House class

addRoom specifics:

1. If Room has an area less than MIN\_AREA then don’t add room and return false
2. If Room has less than MIN\_HEIGHT height then don’t add room and return false
3. If maximum number of rooms of that type are already in the house then don’t add room and return false
4. Otherwise, add the room and return true.

How to calculate isValid for the House:

1. If the number of rooms of any type is less than the minimum needed (MIN\_BEDROOMS, MIN\_KITCHENS, etc) then return false

Additional Requirements:

* Follow the coding standards – make sure there are no compiler warnings!
* All code must be submitted to Canvas before the beginning of the 1st class in Week 4
* All work must be your own. Others may help in identifying bugs and compile errors but not in writing the code.
* Include all necessary files in a .zip file (.sln/.vcxproj/.h/.cpp/.txt) and submit it to the assignment
* You will receive 0 points if your code does not compile and link.

Grading (20 Points total):

* Followed Coding Standards (including submitting assignment properly) – 3 points
* Public Interface Class Function implementations – 6 points
* Appropriate class member data added – 3 points
* Useful and appropriate private functions – 4 points
* Program produces correct output – 4 points