Testbed:

We consider two story-building with identical foor layout depicted in Figure 1. There are two AHU in the HVAC system to provide cooling service into the zones of the building. One AHU is designed to provide service for each floor. Zone usage demands are mentioned in “demands.txt” file. To observe the allocation-aware HVAC control performance, “simulation.py” file is needed to execute.

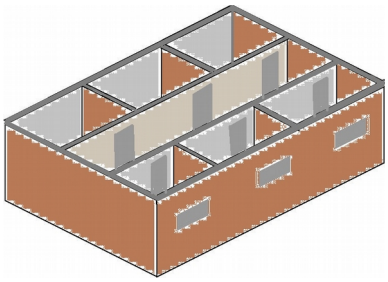

Figure 1: Floor Layout

Dependencies:

1. OMPython 3.1.2 (Link: https://pypi.org/project/OMPython/)
2. matplotlib 3.1.0 (Link: https://pypi.org/project/matplotlib/)
3. MATLAB Engine API for Python
(Link: https://in.mathworks.com/help/matlab/matlab_external/install-the-matlab-engine-for-python.html)

Steps to simulate:

1. Open Matlab engine with session “rajib”
    command: *matlab -r "matlab.engine.shareEngine('rajib')" &*

2. Unzip “tarball”

3. Add “tarball” folder and its sub-folder to Matlab path

4. Run python simulation file (e.g. simulation.py)
    command: *python simulation.py*

5. Final results will be stored in “tarball/RESULT”