Week 6_sconde

1) Given last weeks assignment result:

$$Q_{\cdot no\ shield} = 1035.81\ W/m^2$$

$$(1\%)(Q_{\cdot no\ shield}) = \left(\frac{1}{N+1}\right)(100\%)(Q_{\cdot no\ shield})$$
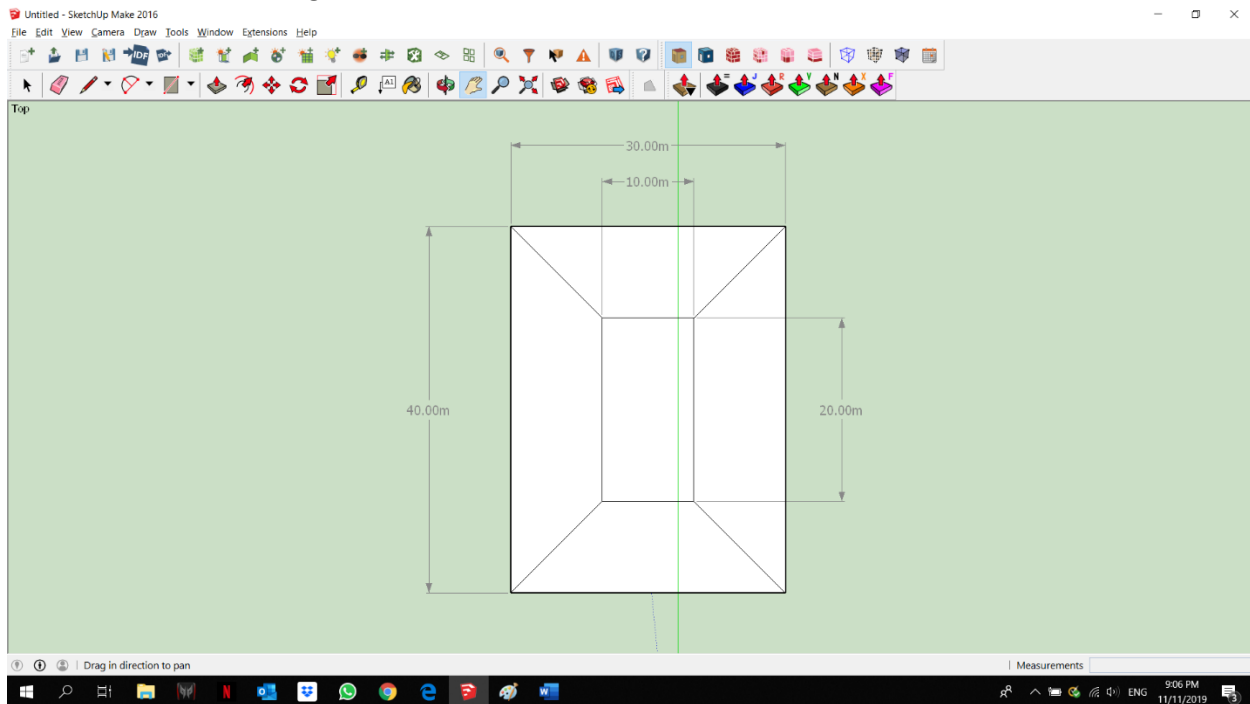
$$(0.01)(1035.81) = \left(\frac{1}{N+1}\right)(1)(1035.81)$$
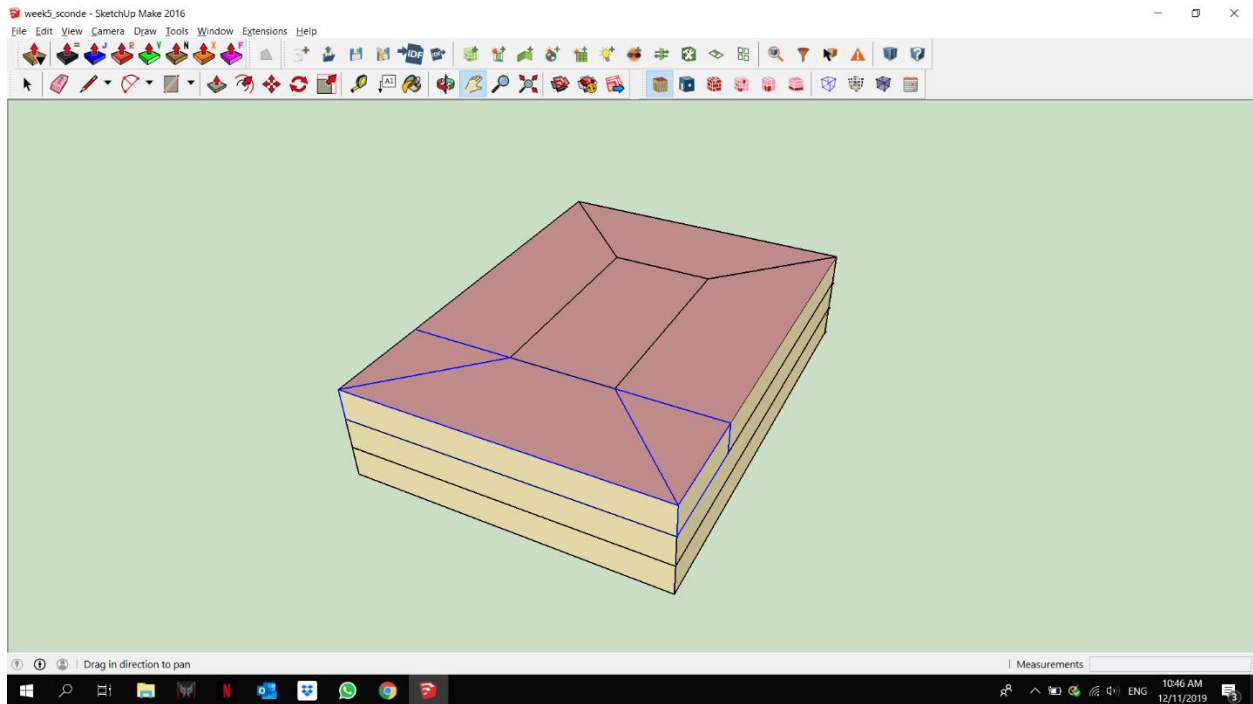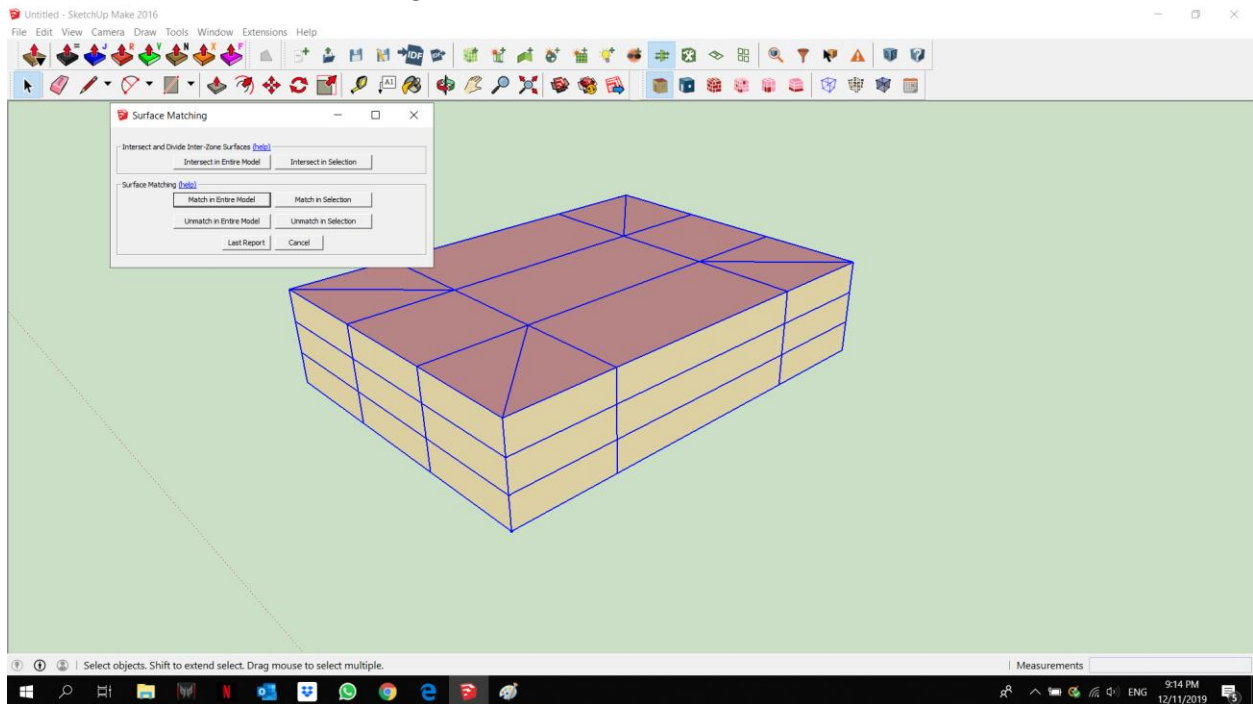
$$N = \frac{1}{0.01} - 1$$

$$N = 99$$

2)
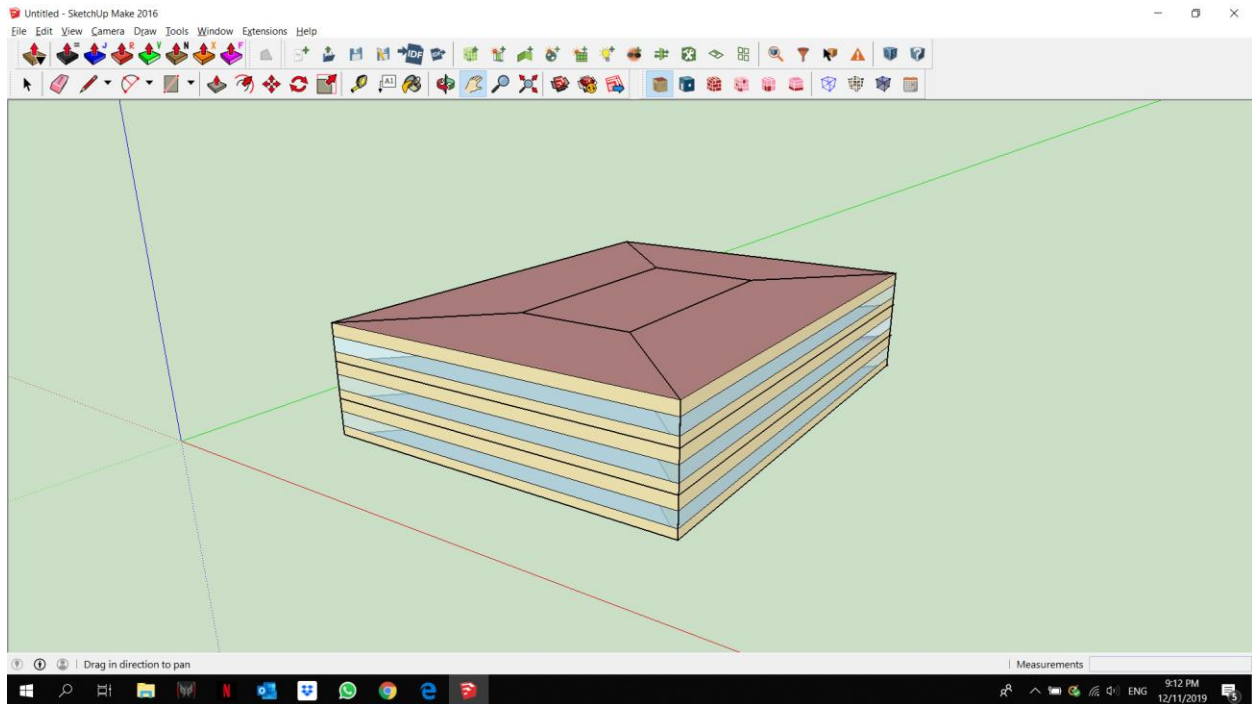1. Draw this diagram. Given here are the Dimensions.

2. Make each floor by using the "Create Spaces from Diagram" Tool. Set to 3 floors and set the desired height of each floors.
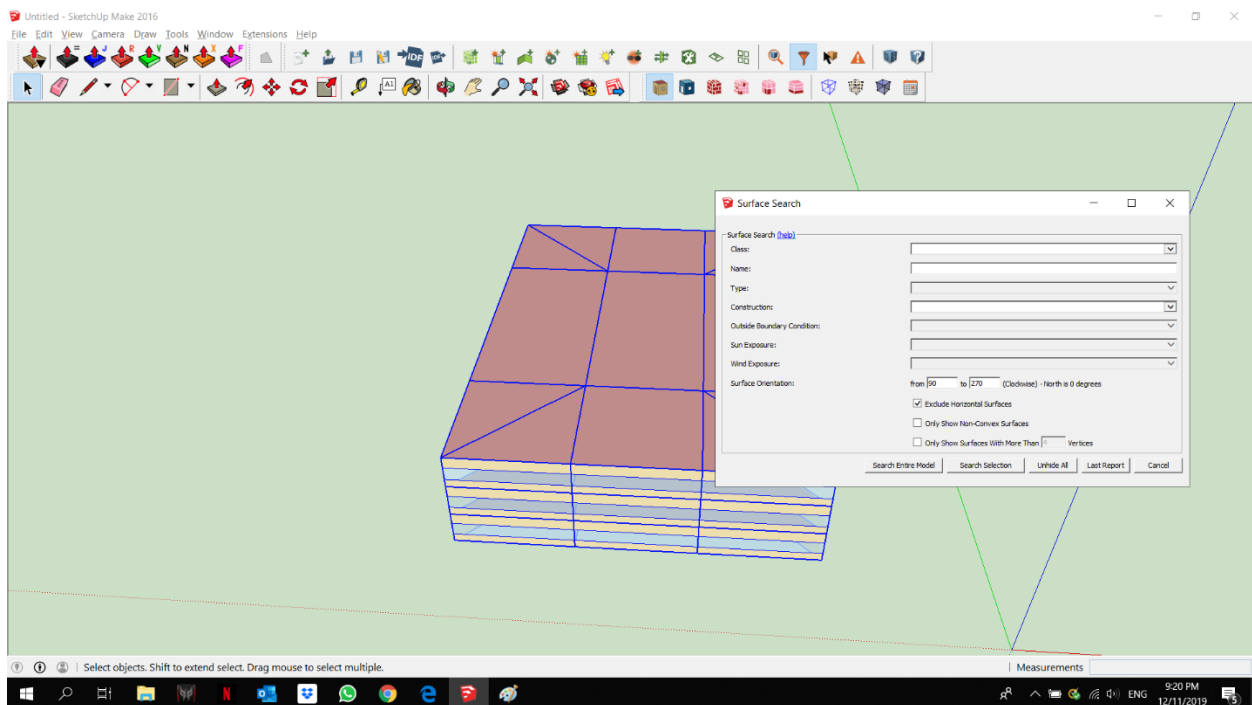

3. Use "Surface Matching" Tool and "Match in Entire Model".
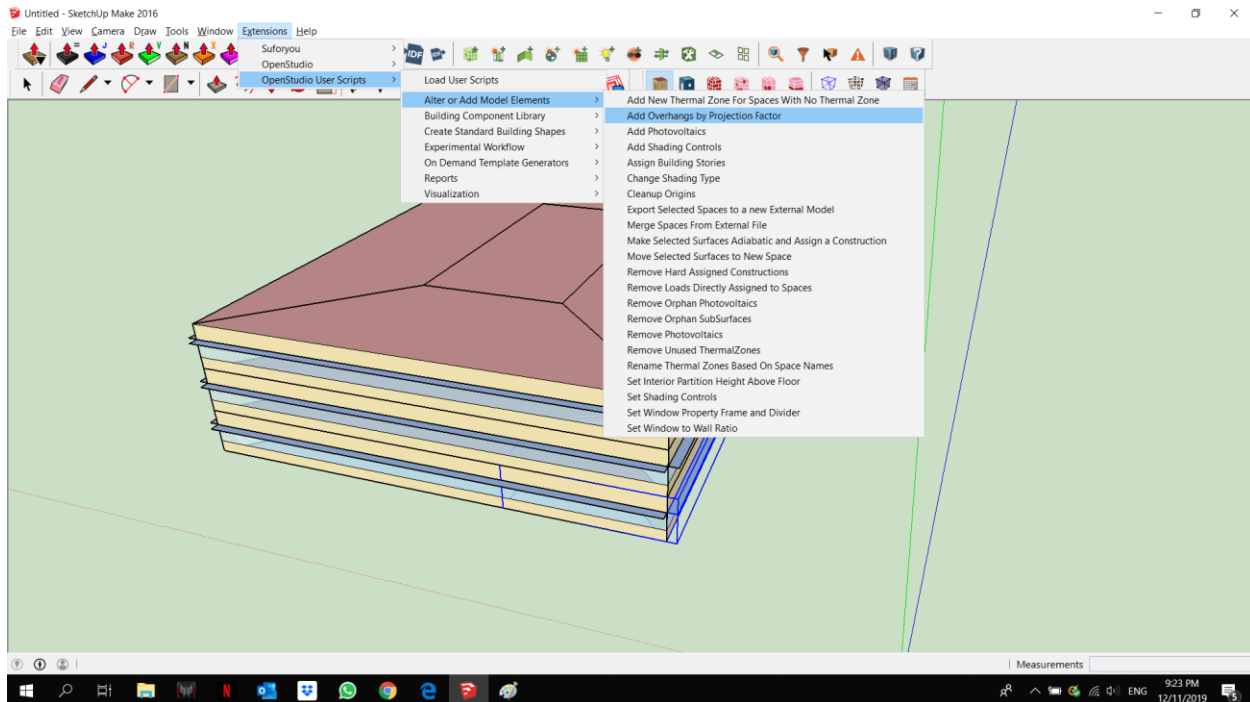
4. To create the windows, go to Extensions > Open Studio User Script > Set Window to Wall Ratio.

5. Use Surface search tool to add shadows, and set the orientation from 90 to 270. Then click "Search Selection".
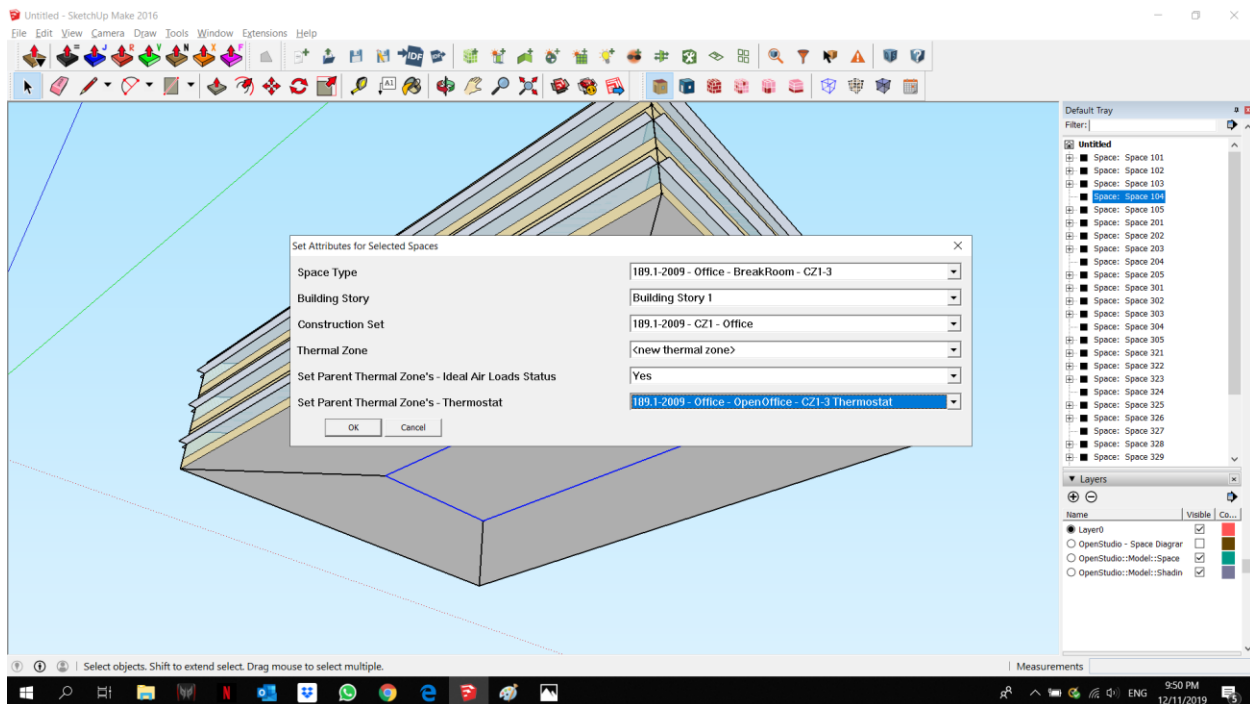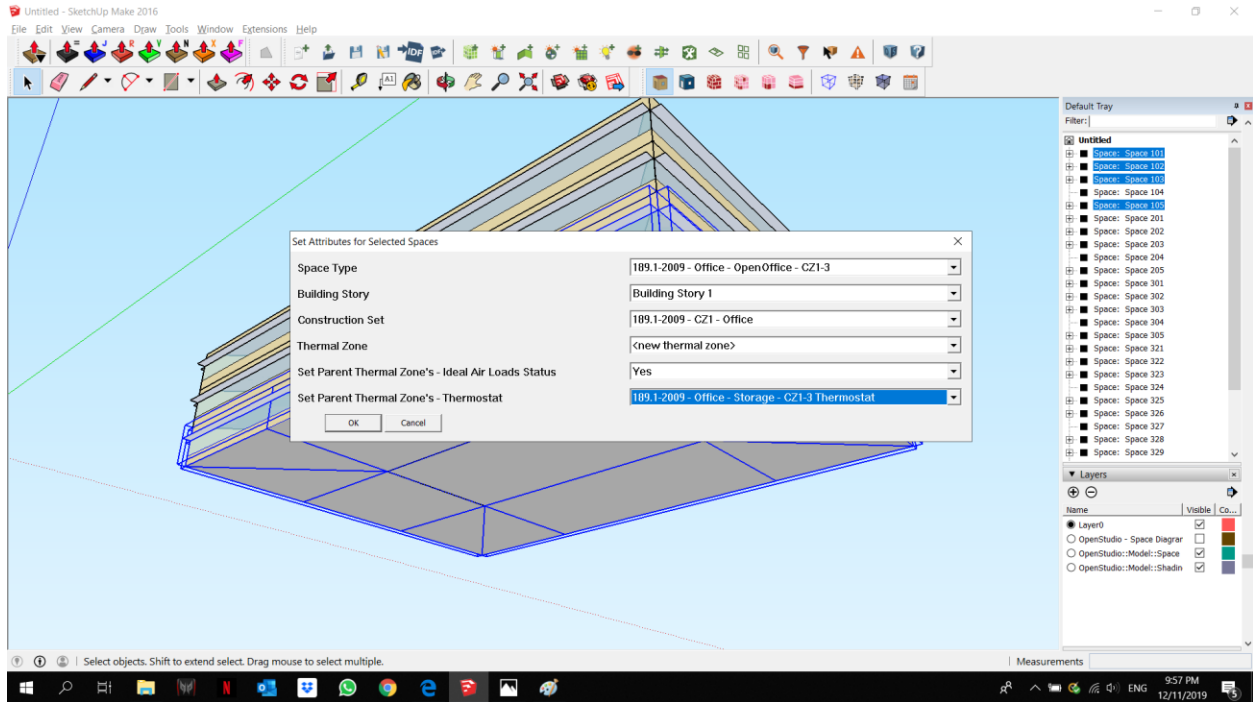
6. To put the Overhangs, go to Extensions > Open Studio User Script > Add Overhang by Projection.
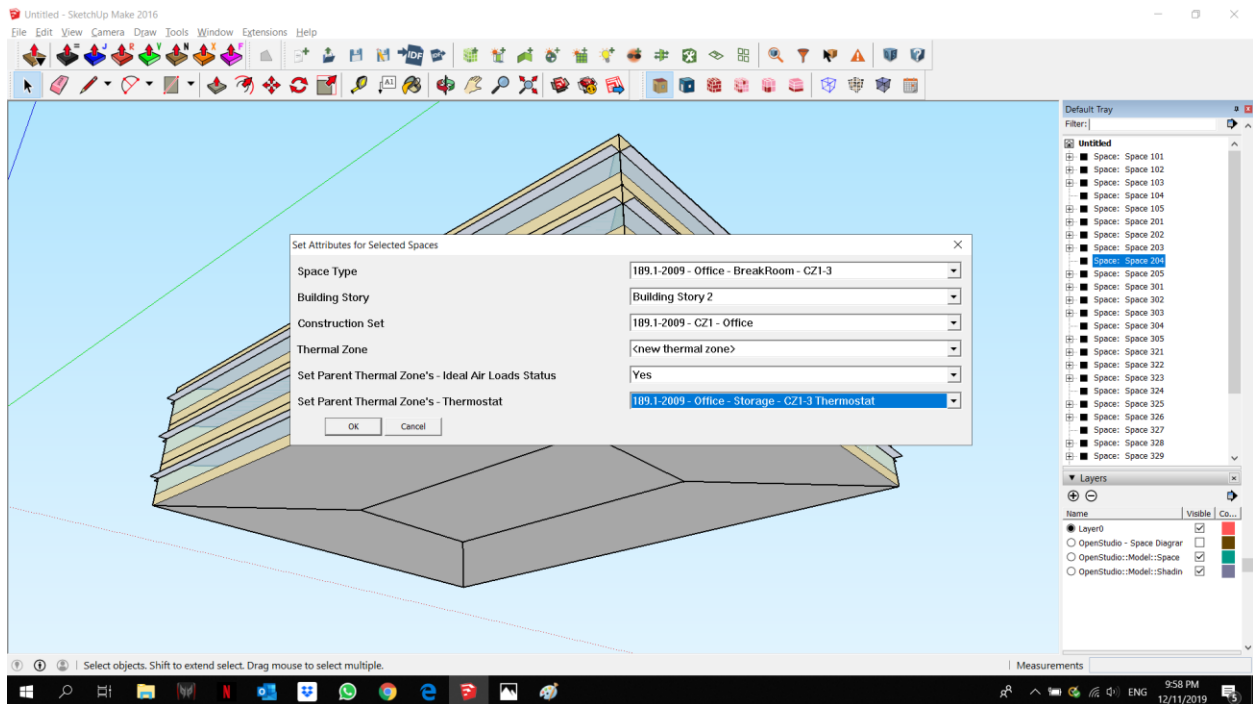

7. To set the attributes of selected spaces, you should set first the "Outliner" on the Default Tray, and then click the "Set Attributes for Selected Spaces" tool and set the attributes accordingly.
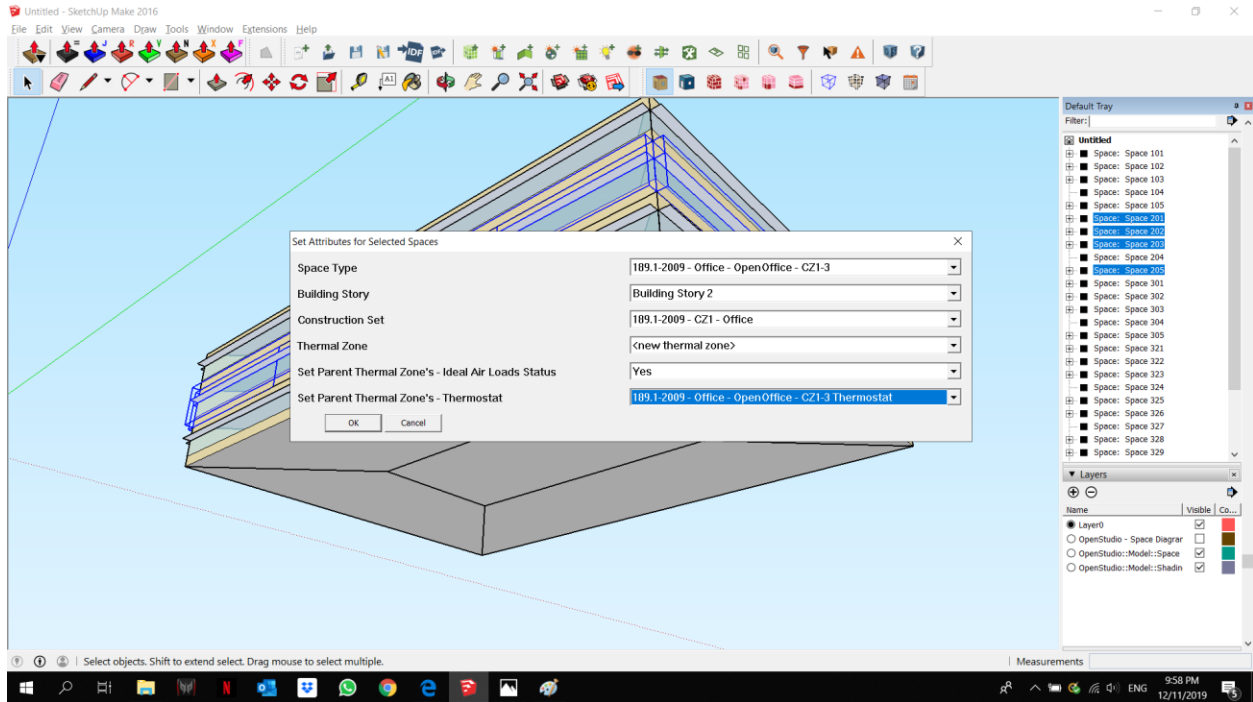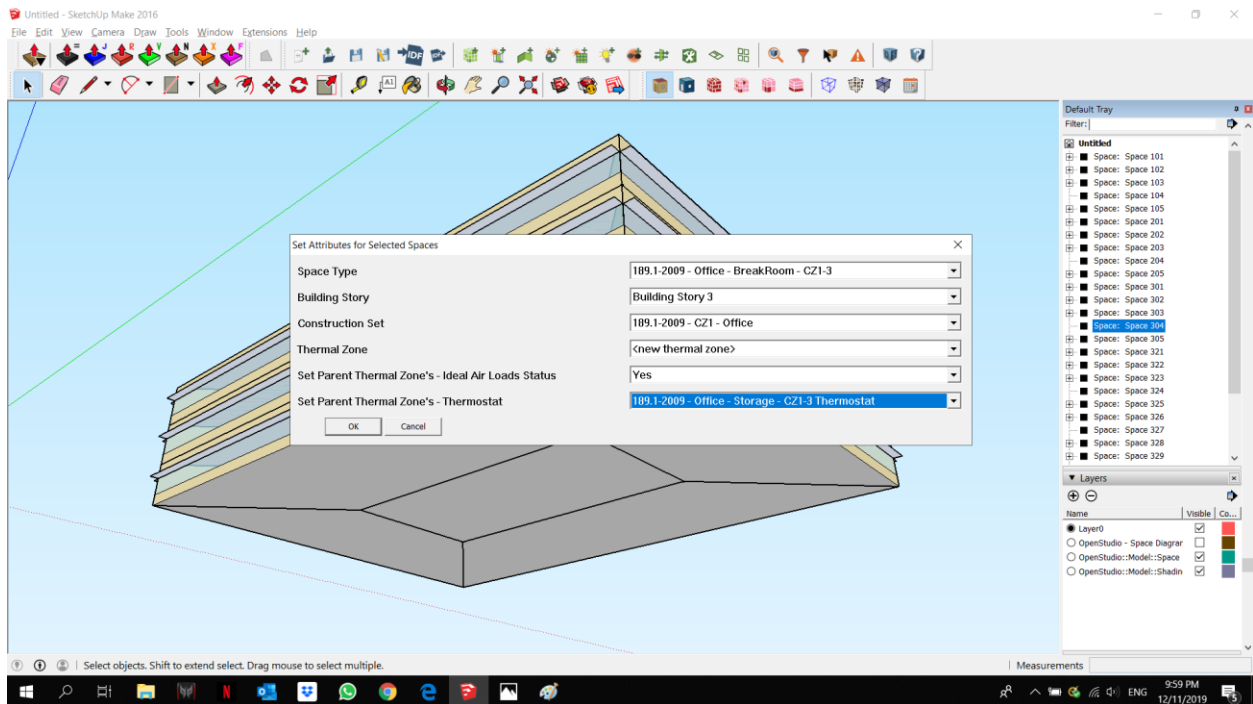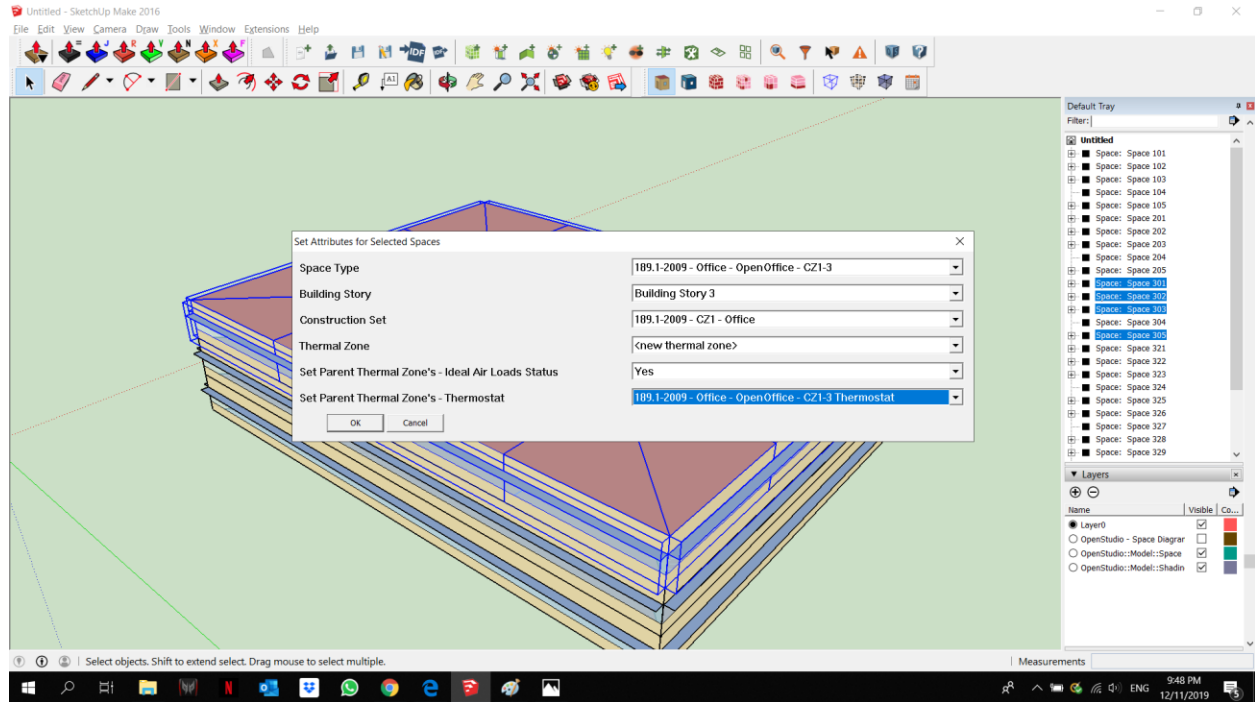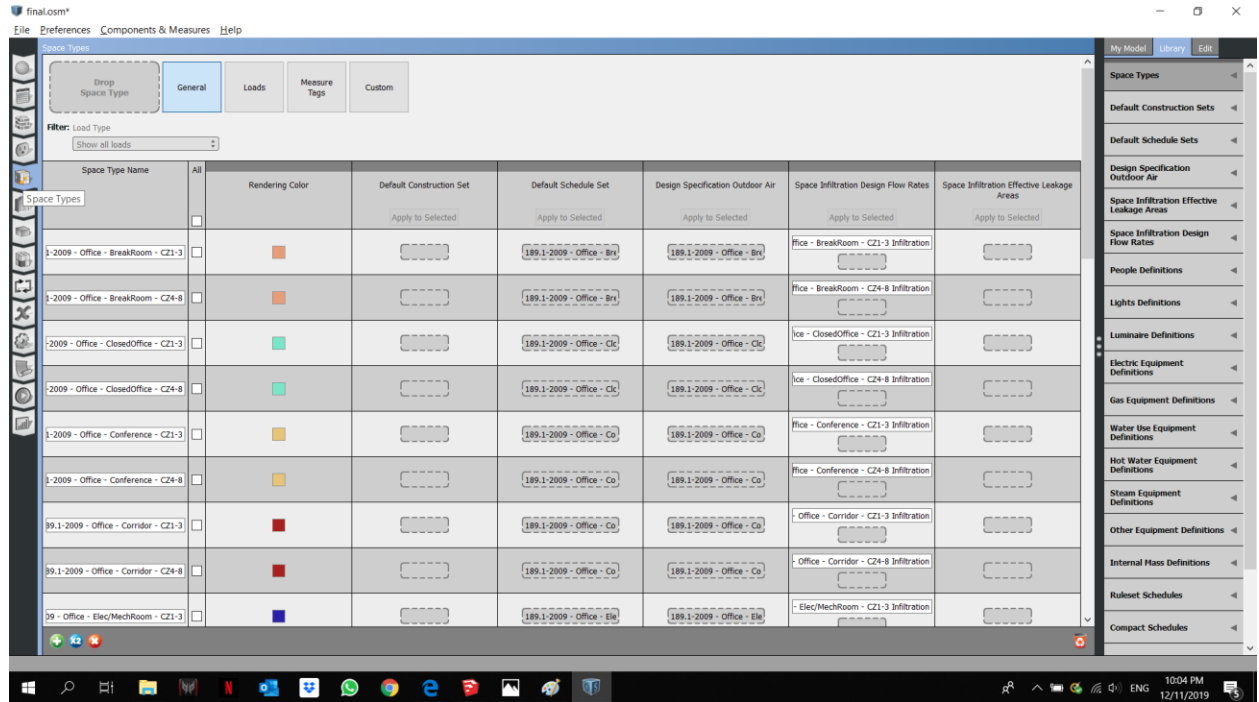   a. First Floor:

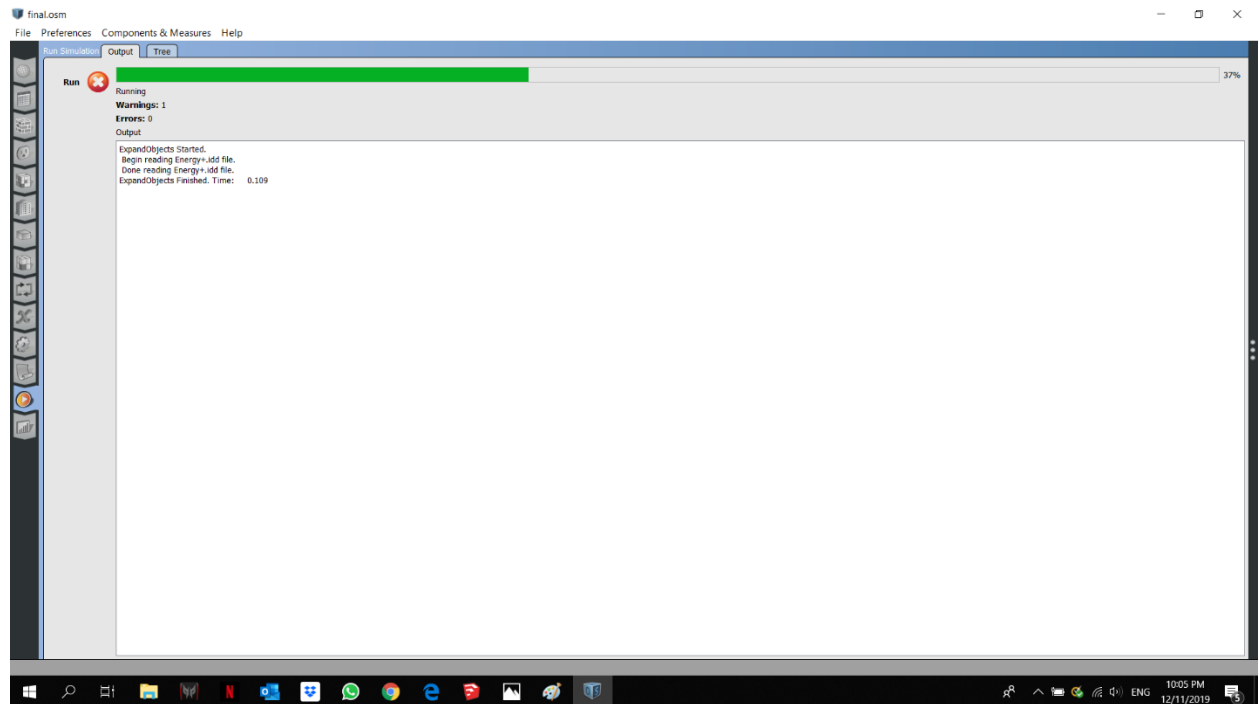b. Second Floor

c. Third Floor

8. To save the file, remember that you should click "Save OpenStudio Model As" the write the file name and save it.

9. Open the OpenStudio File> Import the Weather file of Piacenza. You can Check the Space Type to see each floor's attributes.

10. Run Simulation

11. You can check the Result Summary afterwards.

    a. Open Studio

b. Energy Plus