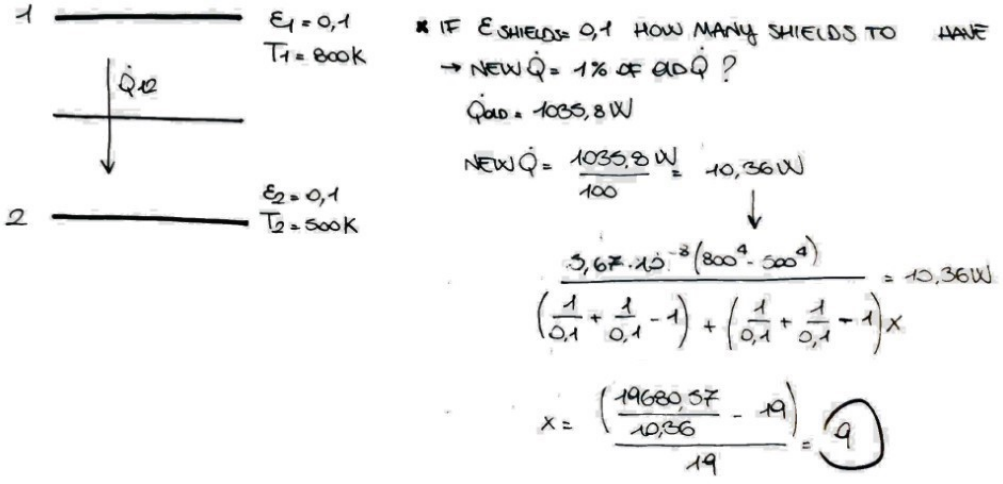
Assignment_WEEK6

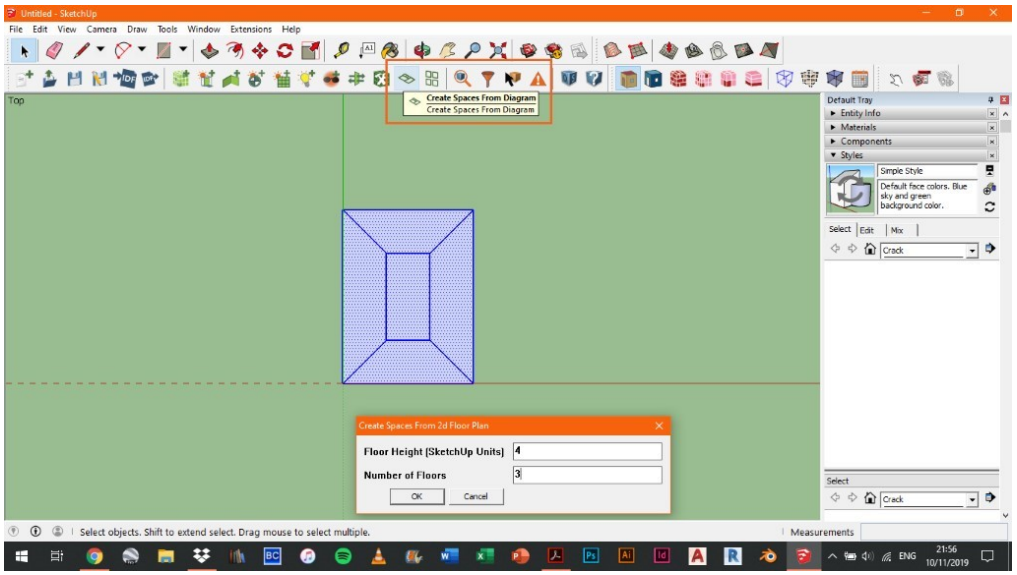
domenica 10 novembre 2019 23:58

EXERCISE:

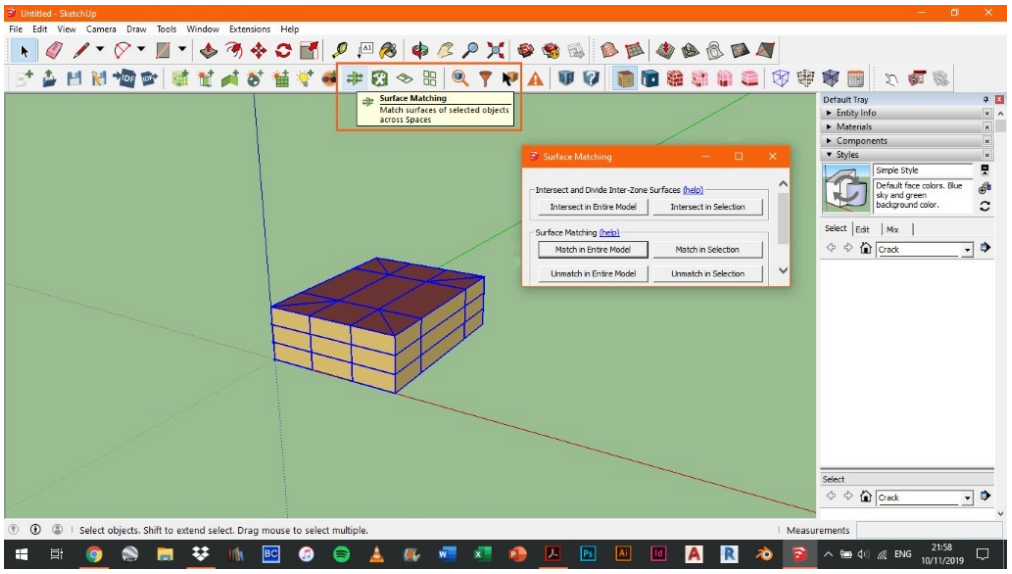


OPEN STUDIO:

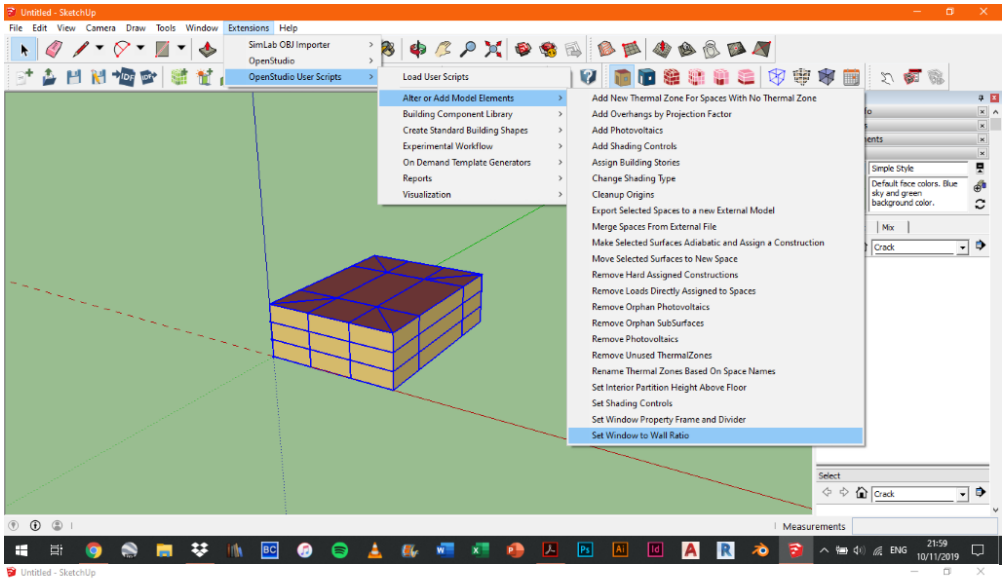
The first thing we have to do is to build the diagram of the plan of our building. We can transform this simple diagram in an actual building just by clicking on CREATE SPACES FROM DIAGRAM and specifying the number and the height of the floors.

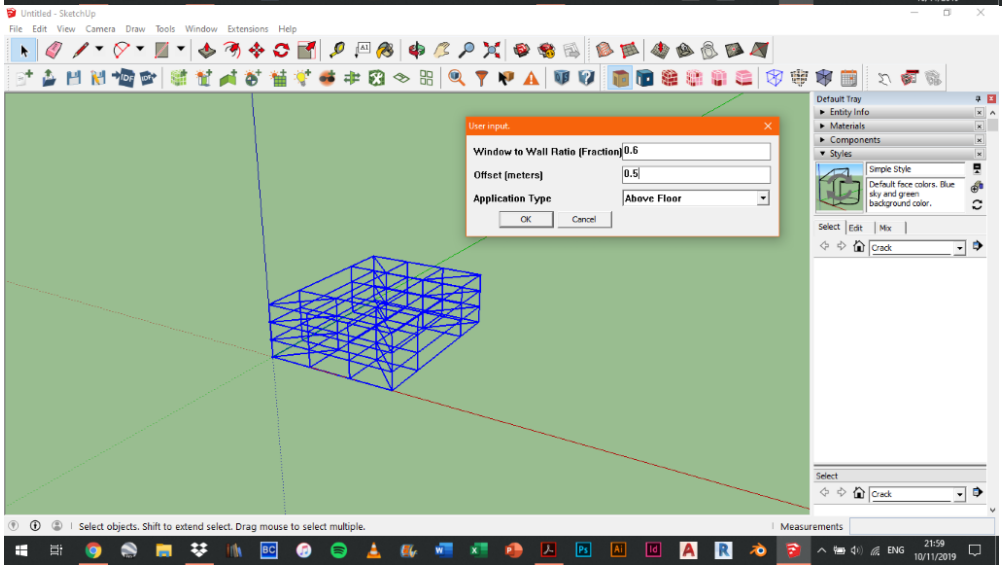


Now what we want to do is to have windows on our façades. Before starting with this step, to avoid the creation of windows inside the building, we have to use the SURFACE MATCHING TOOL and click on MATCH THE ENTIRE MODEL .

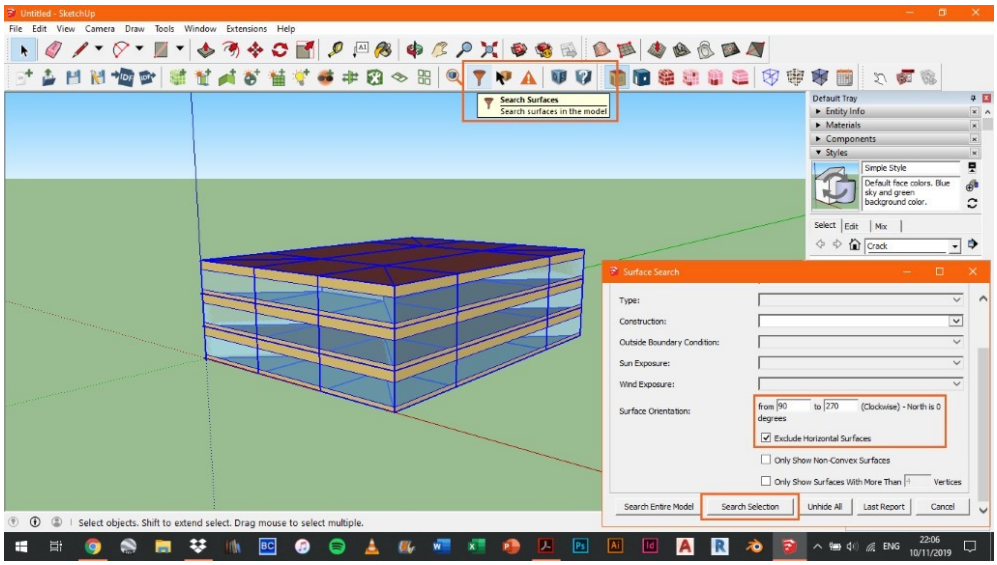


Once that is done, we can set the WINDOW TO WALL RATIO by following the selection shown on the image.

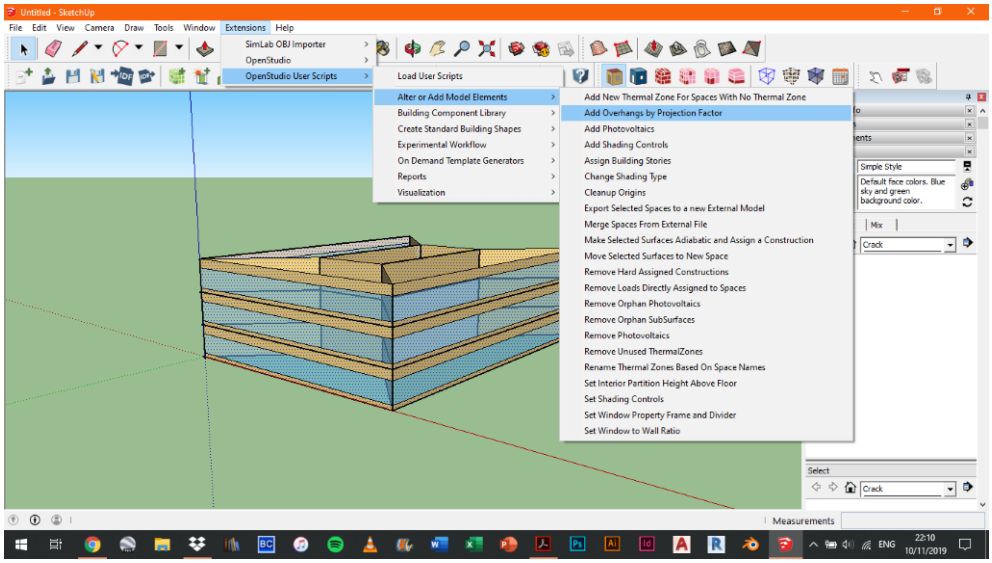




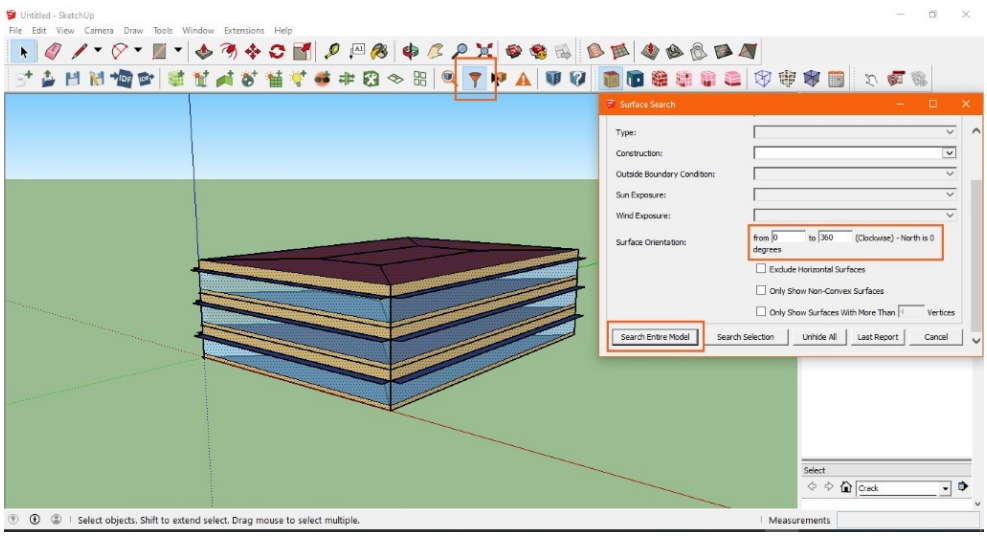
The next step is to add shadings to our windows. Since we've decided to have shading devices on all the façades except the north one, we can use the SEARCH SURFACES tool for the selection.



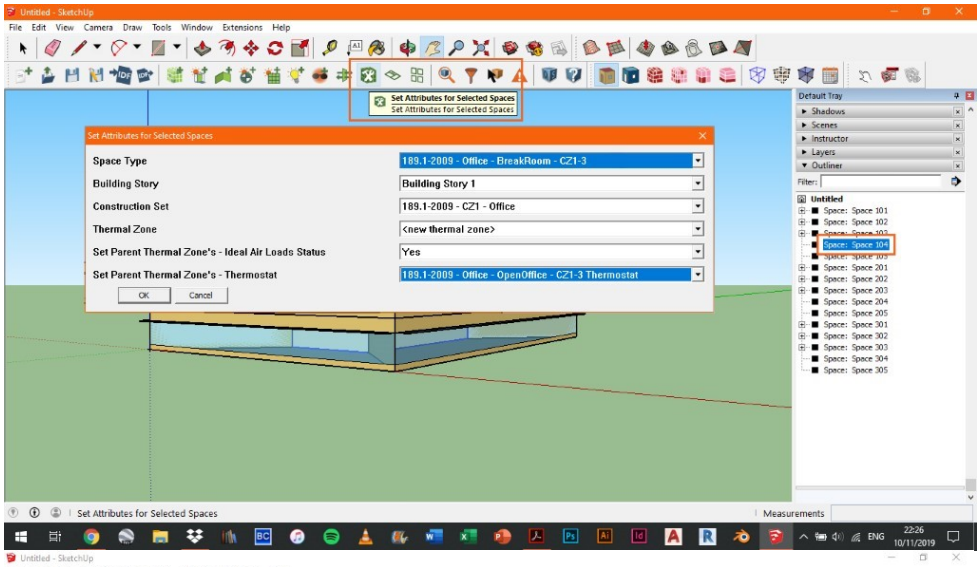
Now that the right surfaces are selected we can add OVERHANGS as shown in the picture.

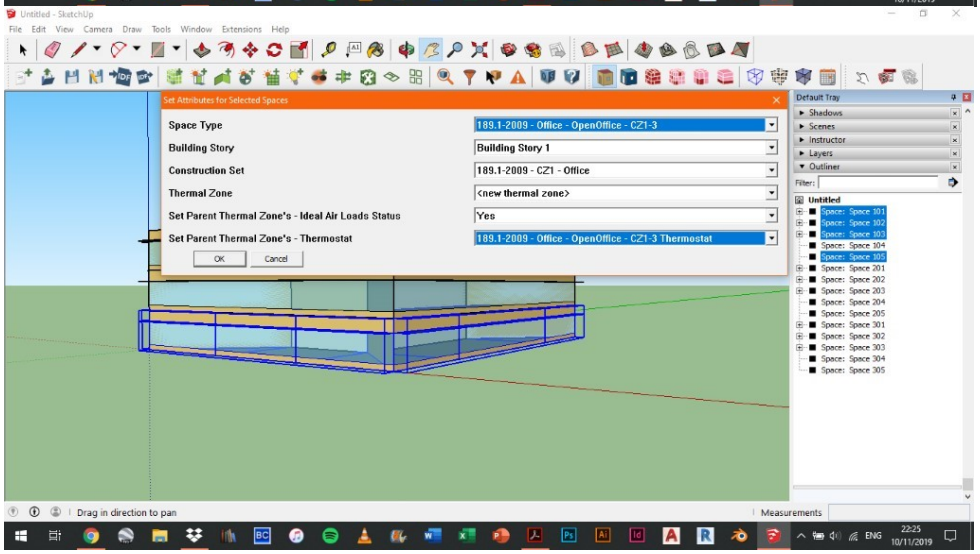


Then we repeat the SEARCH SURFACES step to undo the selection.

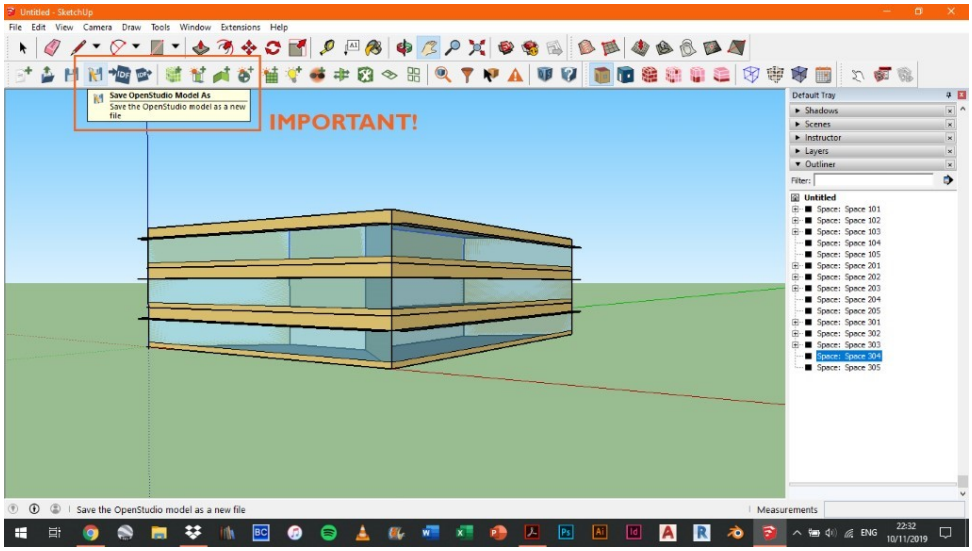


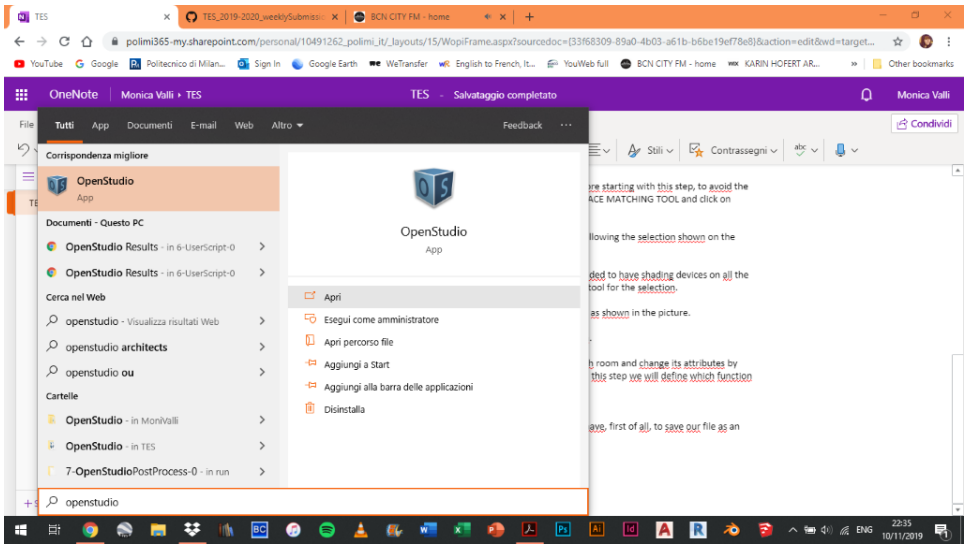
Finally, by using the outliner in the default tray, we can select each room and change its attributes by clicking on CHANGE ATTRIBUTE FOR SELECTED. By proceding with this step we will define which function the room has and wich type of thermostat we want to use. Repeat the step for each room in each floor.



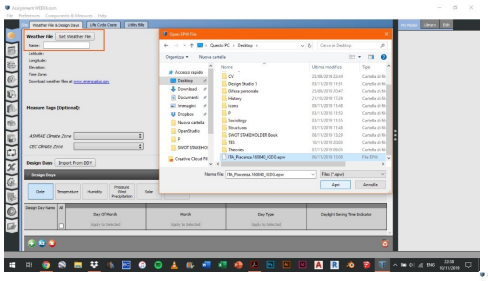


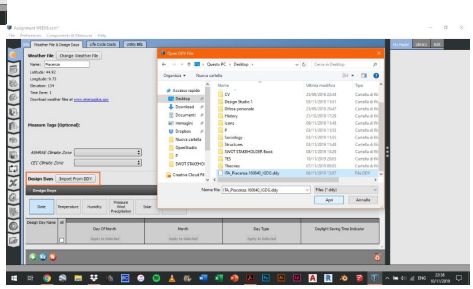
We have now terminated the work on Sketchup. To procede we have, first of all, to save our file as an OpenStudio model and then open the OpenStudio application.





After loading our OpenStudio model, we can upload on the application the weather file (epw) and the design days file (ddy).





After running the operation by clicking on the play button, the results will be shown in the last window (select EnegyPlus results)