

Task 1:

Provide a summary of the main concepts that went through about solar radiation (formulas are not needed)

Solar Radiation

Solar radiation is the energy emitted by the sun and it includes the visible range and the ultraviolet and infrared waves.

The radiation that reaches the surface of the earth is divided between direct radiation and a diffused one.

as the sun radiation reaches the earth, a big part of it is diffused and absorbed by the atmosphere, the ozone layer, the water the clouds and the components of the air, this part doesn't create any sharp shadows or focused sunlight. Whereas the other part, that hasn't been diffused does create sharp shadows and its light is more focused. Also, it can be more dangerous for people as it carried ultraviolet waves.

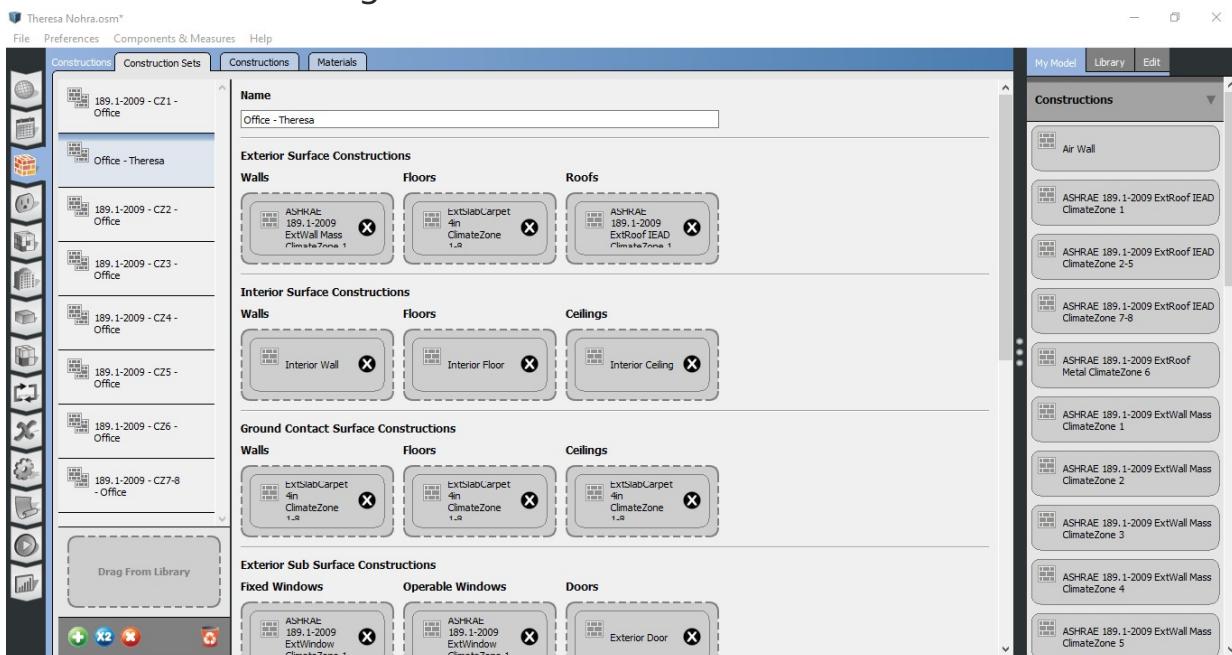
The solar radiation density measures the density of solar electromagnetic radiation.

The solar energy depends on many factors being: first the sun's position in the sky which depends on the time, the seasons and the angle, and it's a changing factor. Second, it depends on the weather conditions in the designed area. Third, it depends on the location itself, meaning the altitude over the sea level. And finally, it can also be affected by the number of sunshine hours.

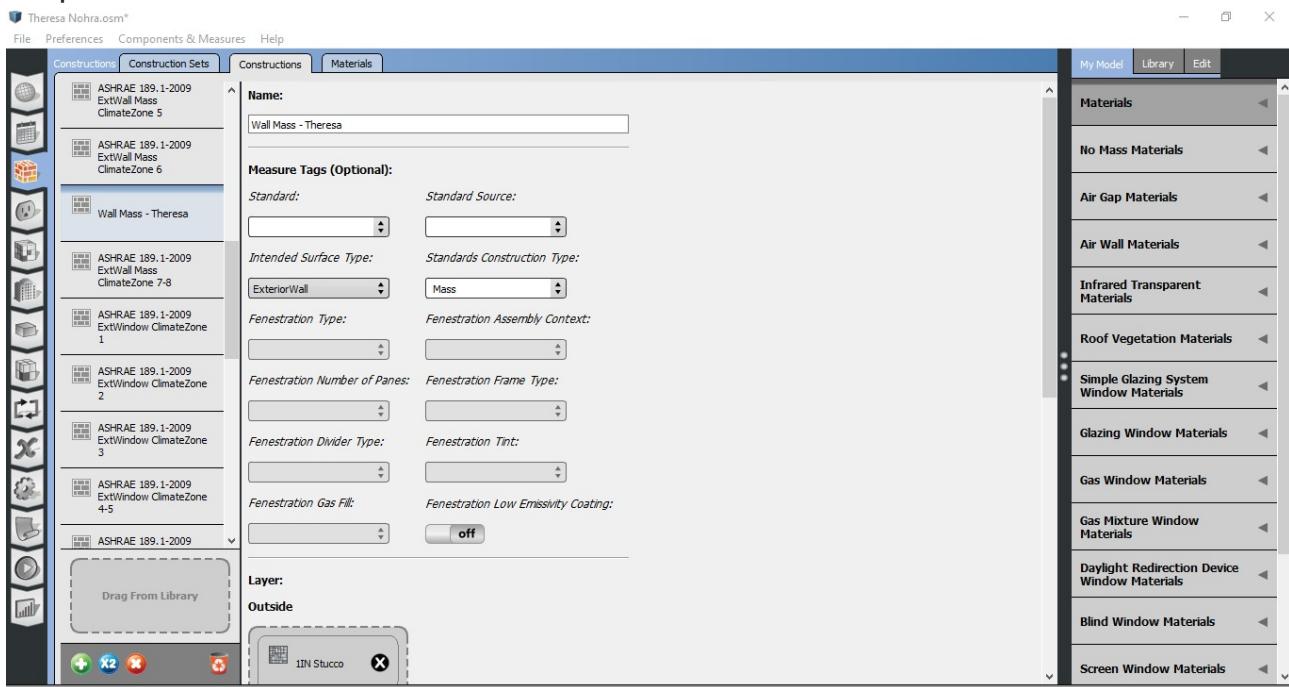
Task 2:

create a pdf file with screenshots of all of the steps we went through in the second lesson on openStudio and explain briefly the reason behind the use of each step (in your own words!)

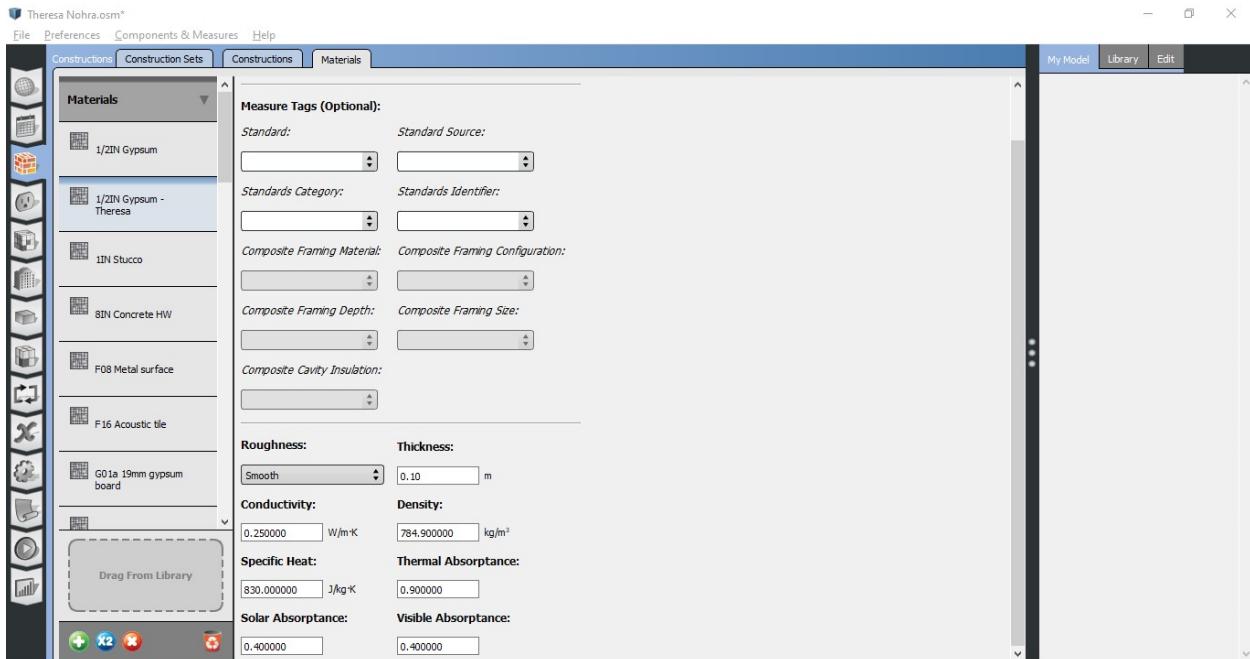
Step 1: Insert the weather data of Piacenza (the designed area) and customize the building in “construction”.



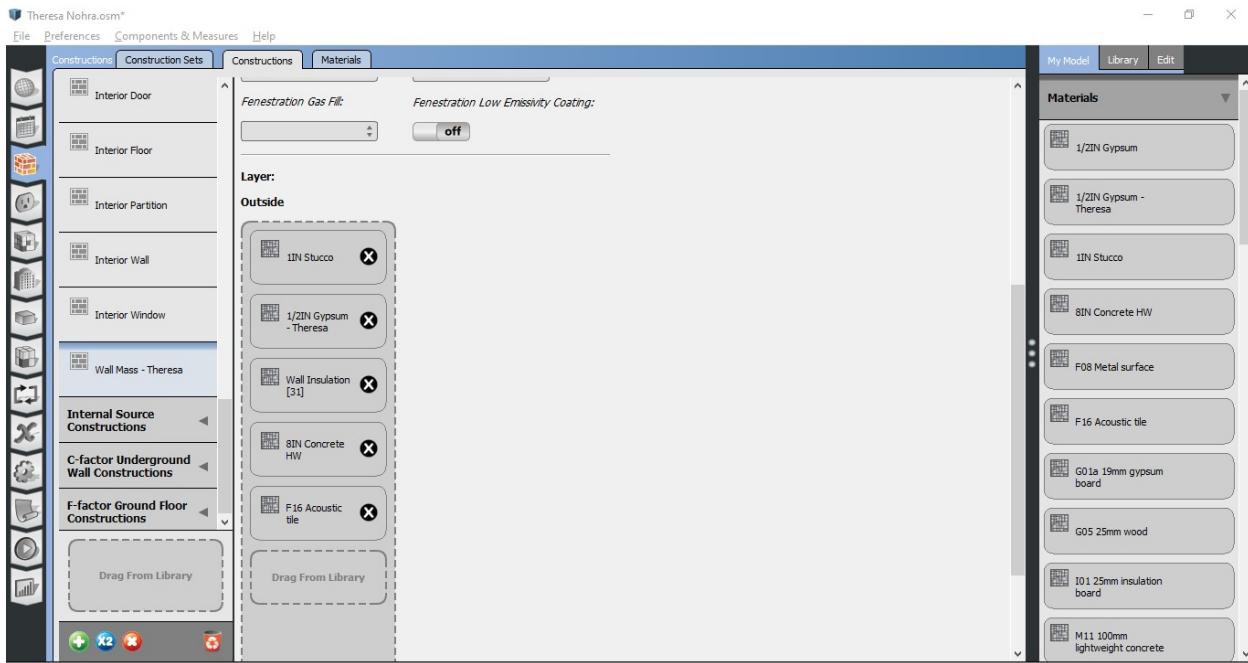
Step 2: use the construction sets to customize the wall.



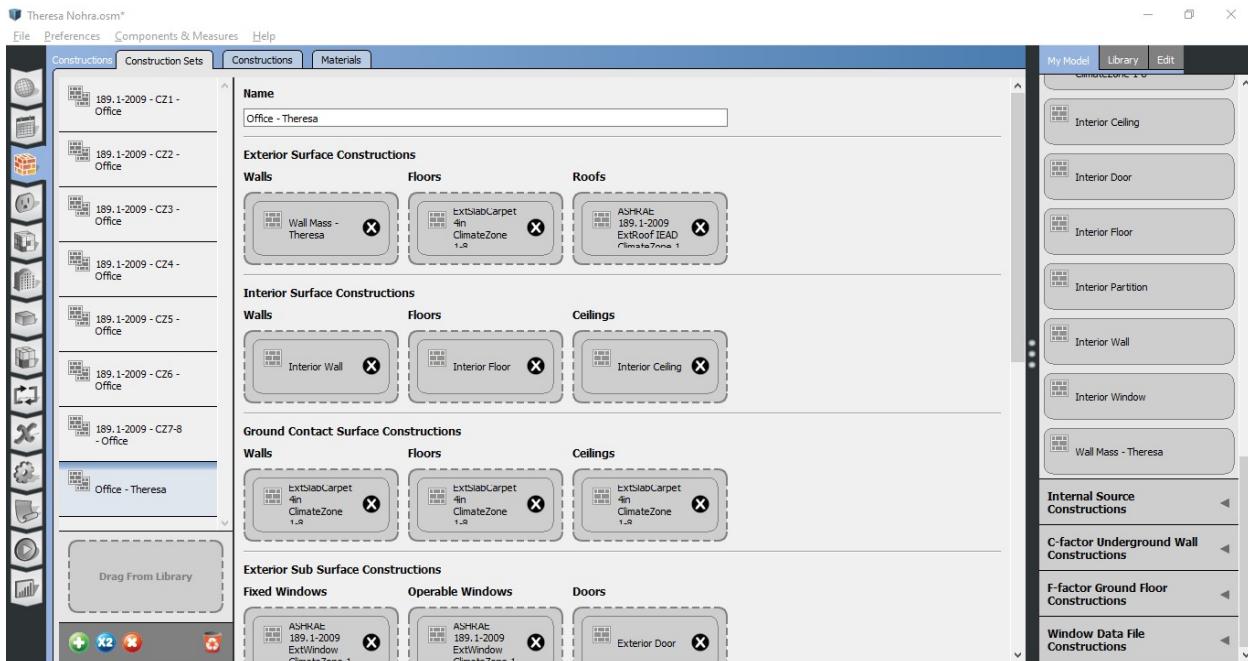
Step 3: pick the wall insulation type



Step 4: insert the chosen type in the package.



Step 5: add the wall in the building data.



Step 6: go to schedule sets and insert all the information and activities..

