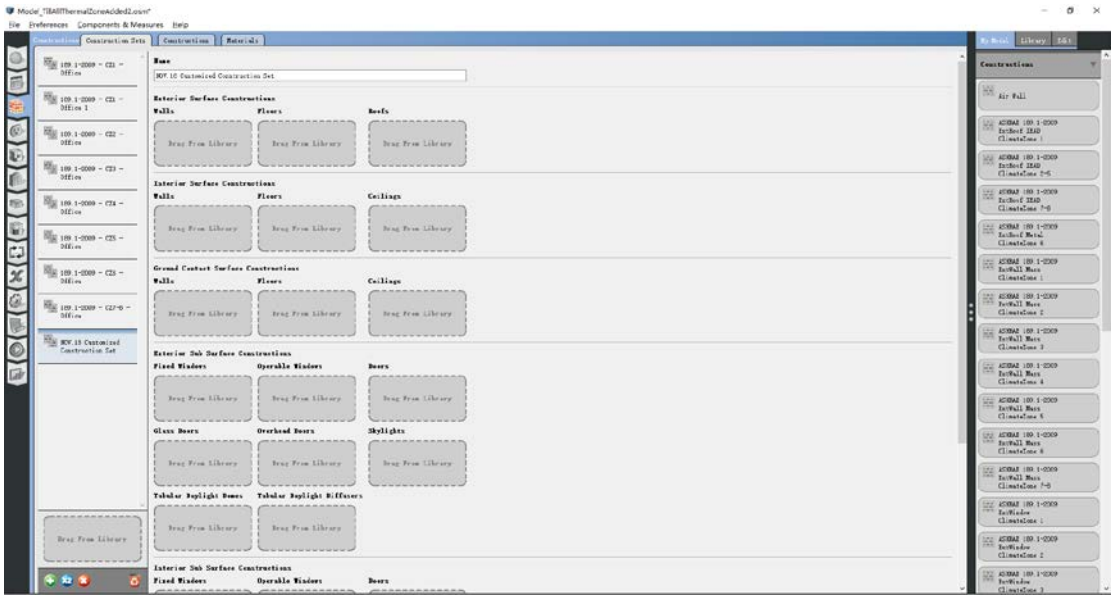
Week 7

Task 1:Provide a summary of the main concepts that went through about solar radiation (formulas are not needed)

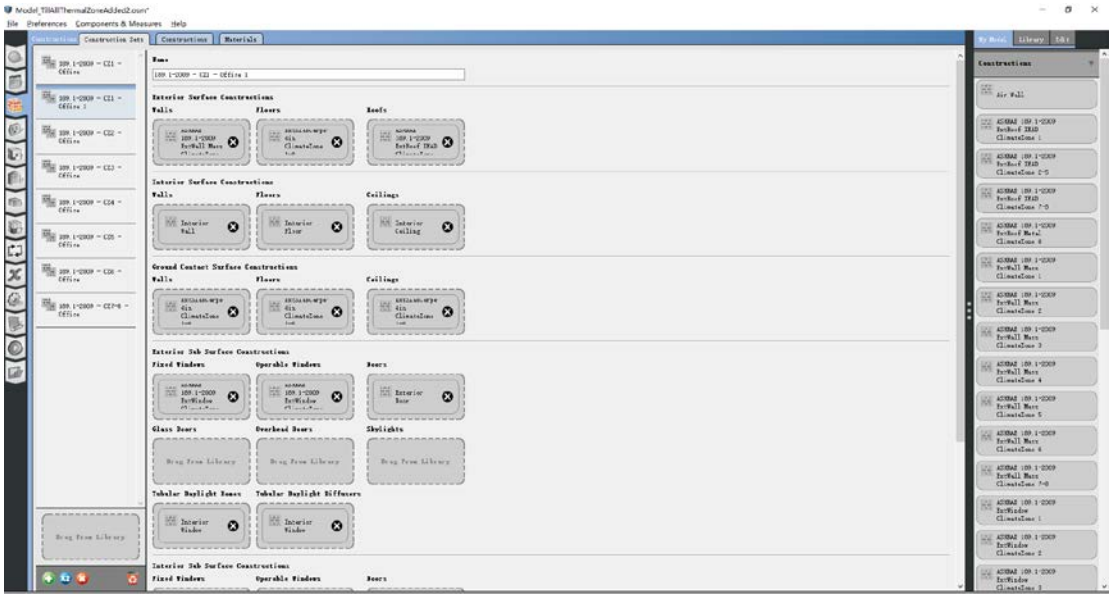
Solar radiation is electromagnetic energy emitted by the sun.When the sun is radiating energy, some of it is transmitted,and other is absorbed or scattered. Directly of the solar radiation (also known as direct iridescence) is the radiation that maintained the direction of incidence.Solar radiation absorption is due to some atmospheric components which absorb the incident radiation in specific wavelength bands which modifies its energetic spectrum.
When the sun is perpendicular to the plan of the horizon,it crosses the minimum thickness of the atmosphere.And the sun is at an angle it crosses a large thickness of the atmosphere.Solar radiation available on the Earths surface for conversion.

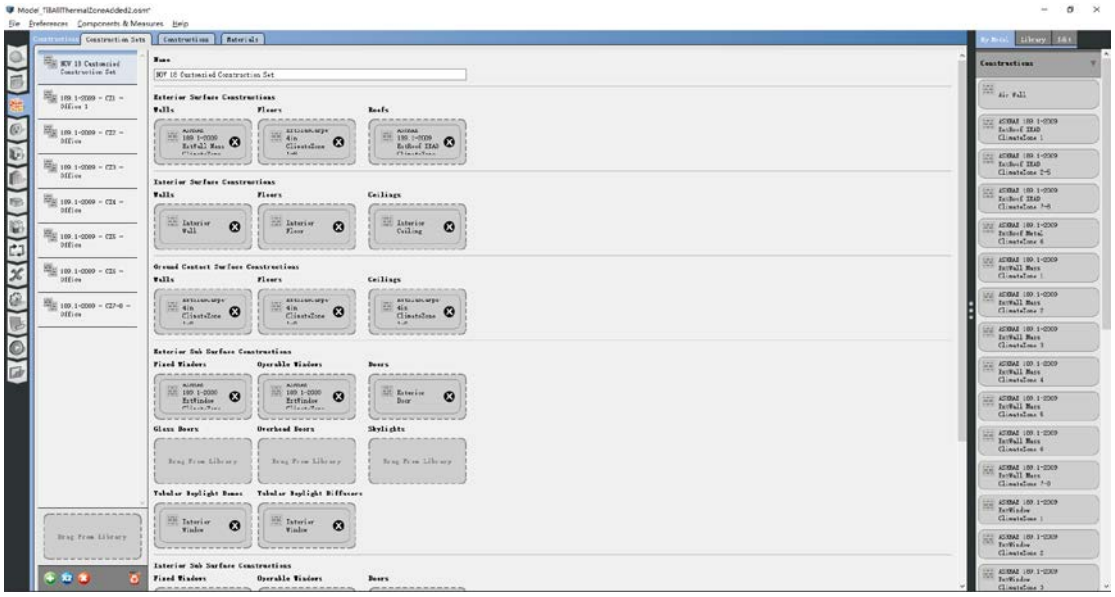
Task 2:Y create a pdf file with screenshots of all of the steps we went through in the second lesson on openStudio and explain briefly the reason behind the use of each step (in your own words!)

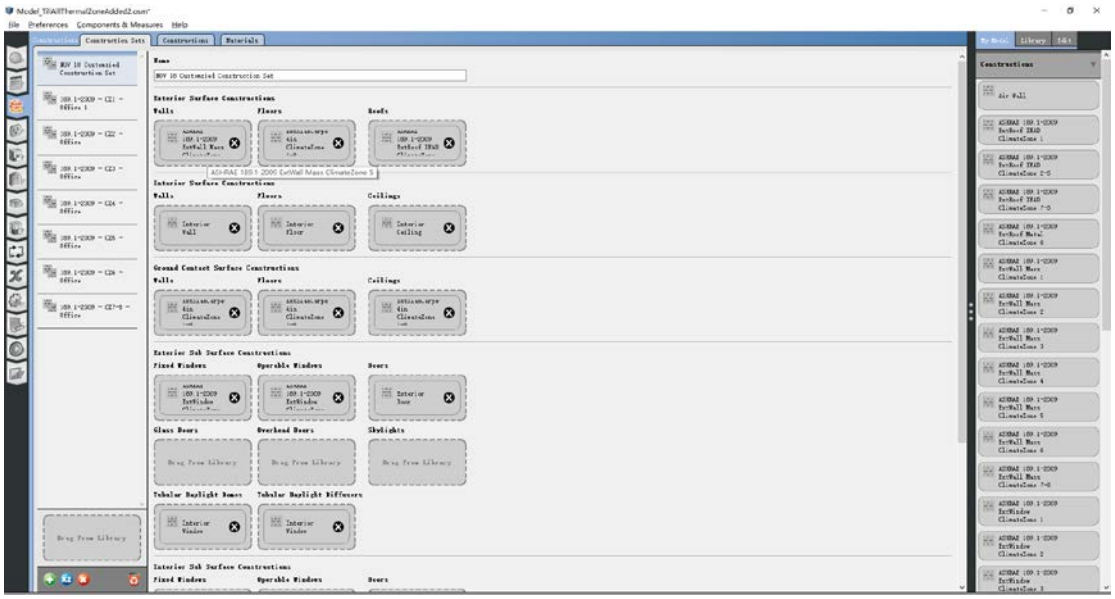
Firstly creat a customized construction, we need to duplicate a construction.



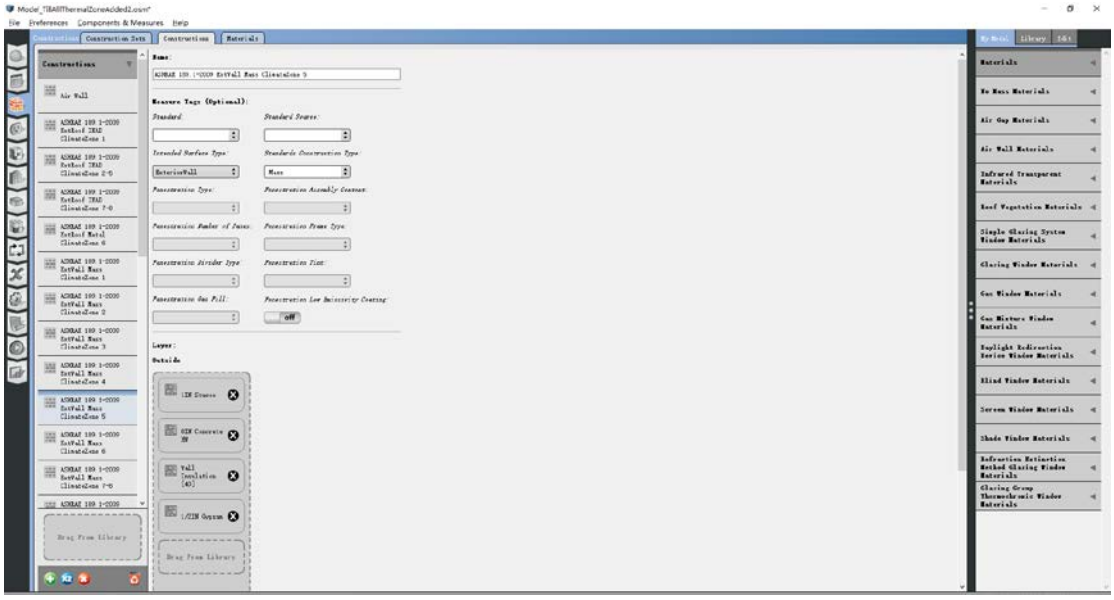
Rename.

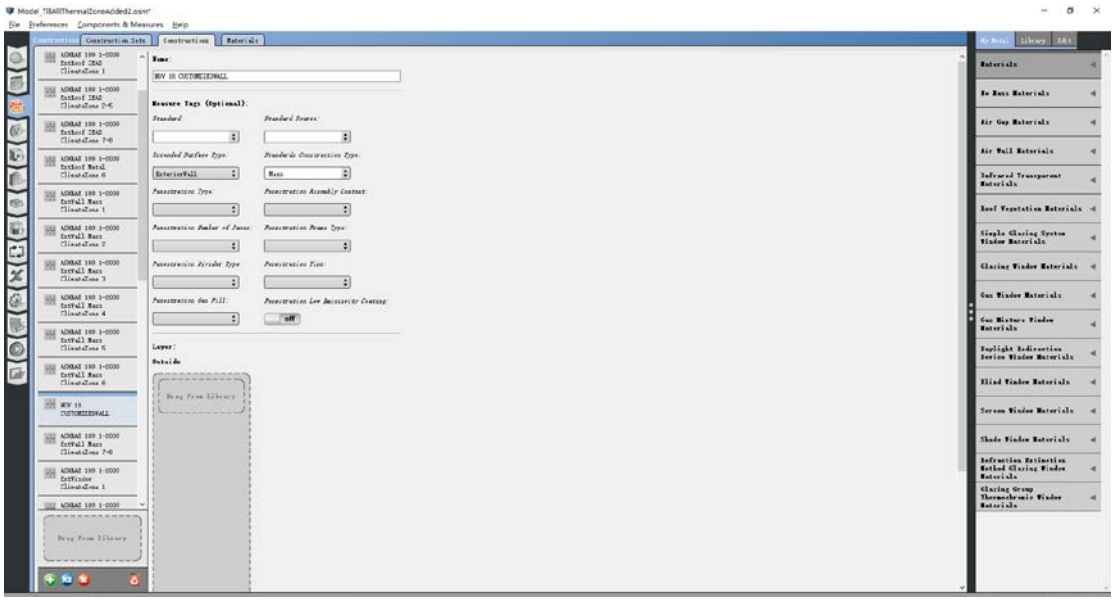




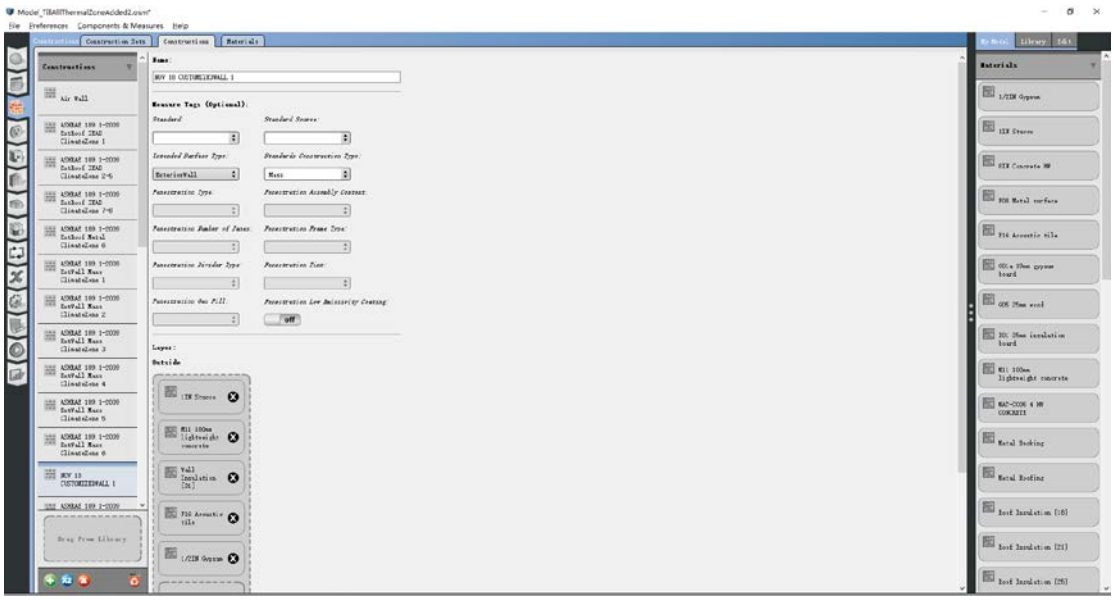


Change the material of ExtWall.

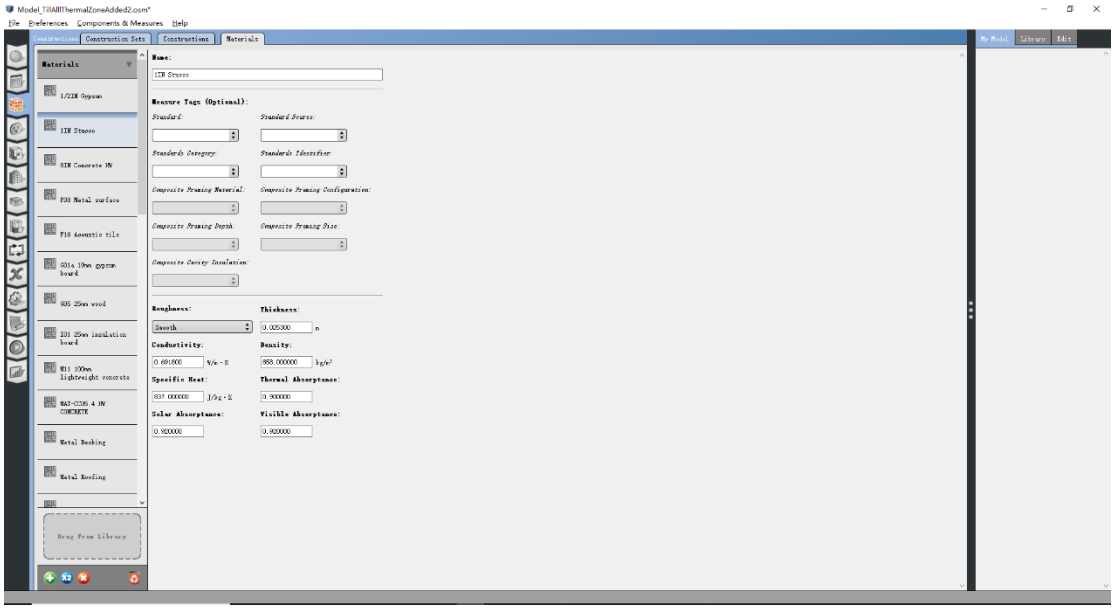




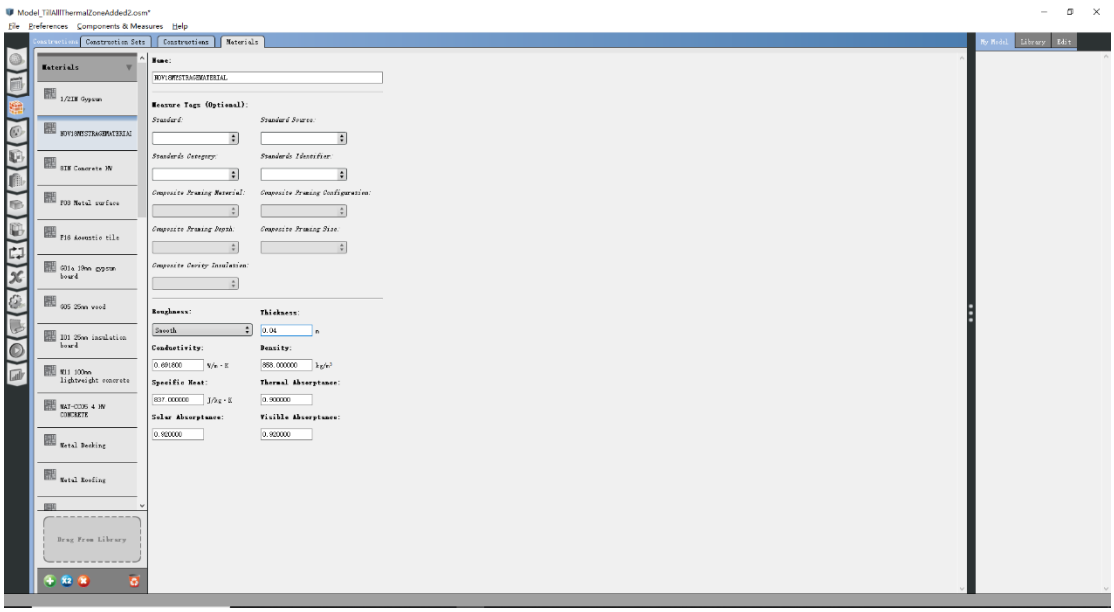
Go to the construction tab and duplicate the existing one, remove the existing material.

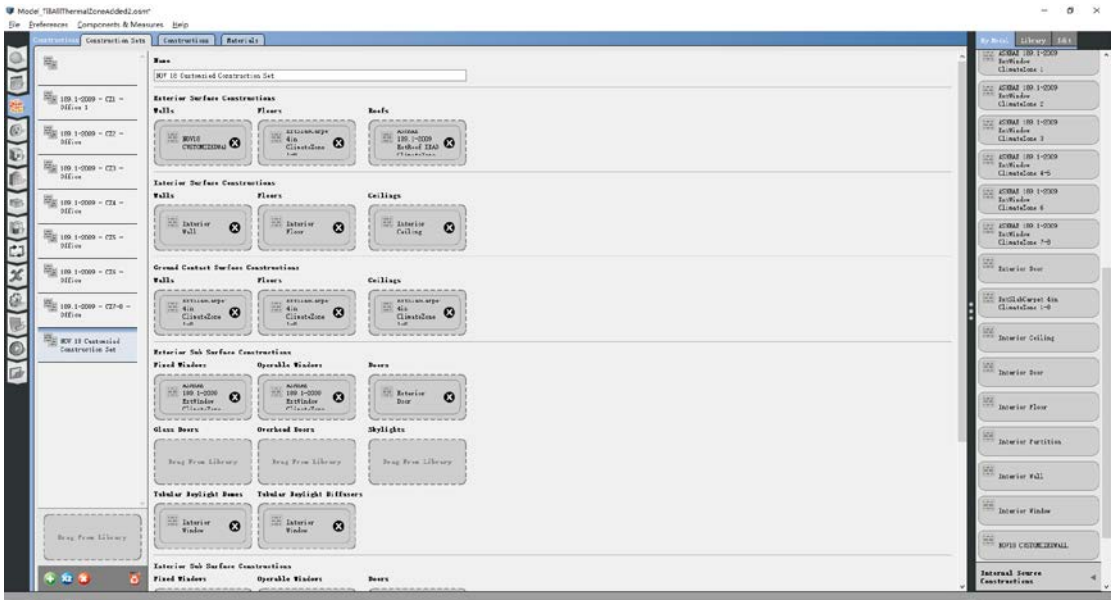


Check the existing materials' properties in material tab and define new materials.



Change the thickness and other properties use the new material


Model_TRAIIThermalZoneAdded2.osm*
File Preferences Components & Measures Help
Constructions Construction Sets Constructions Materials
Materials
Name:
Measure Tags (Optional):
Standard:
Standard Source:
Standards Category:
Standards Identifier:
Composite Framing Material:
Composite Framing Configuration:
Composite Framing Depth:
Composite Framing Size:
Composite Cavity Insulation:
Roughness:
Thickness:
Smooth
0.04
Conductivity:
Density:
Specific Heat:
Thermal Absorptance:
Solar Absorptance:
Visible Absorptance:
0.900000
0.920000
Drag From Library
By Model Library Edit


Model_TRAIIThermalZoneAdded2.osm*
File Preferences Components & Measures Help
Constructions Construction Sets Constructions Materials
Name:
MOV 10 Customized Construction Set
Exterior Surface Constructions
Walls
Floors
Roofs
Interior Surface Constructions
Walls
Floors
Ceilings
Ground Contact Surface Constructions
Walls
Floors
Ceilings
Interior Sub Surface Constructions
Fixed Windows
Operable Windows
Doors
Glass Doors
Overhead Doors
Skylights
Tubular Daylight Domes
Tubular Daylight Diffusers
Interior Sub Surface Constructions
Fixed Windows
Operable Windows
Doors
Drag From Library
By Model Library Edit
Interior Door
Interior Ceiling
Interior Door
Interior Floor
Interior Partition
Interior Wall
Interior Window
Internal Source Constructions