EL – 225 ENGINEERING DRAWING

SEMESTER PROJECT

Student Name: **Ammar Bin Amir**

Roll Number: **19B-004-EE** Section: **A**

Maximum Marks	Designing of 3D model = 10	Project Presentation = 10	Project Report Evaluation= 10	Total = 30
Marks Obtained				
Remarks (if any)				

Experiment evaluated by

Instructor Name: Engr. Shaheer Ahmed

Signature:

EL-225 PROJECT REPORT

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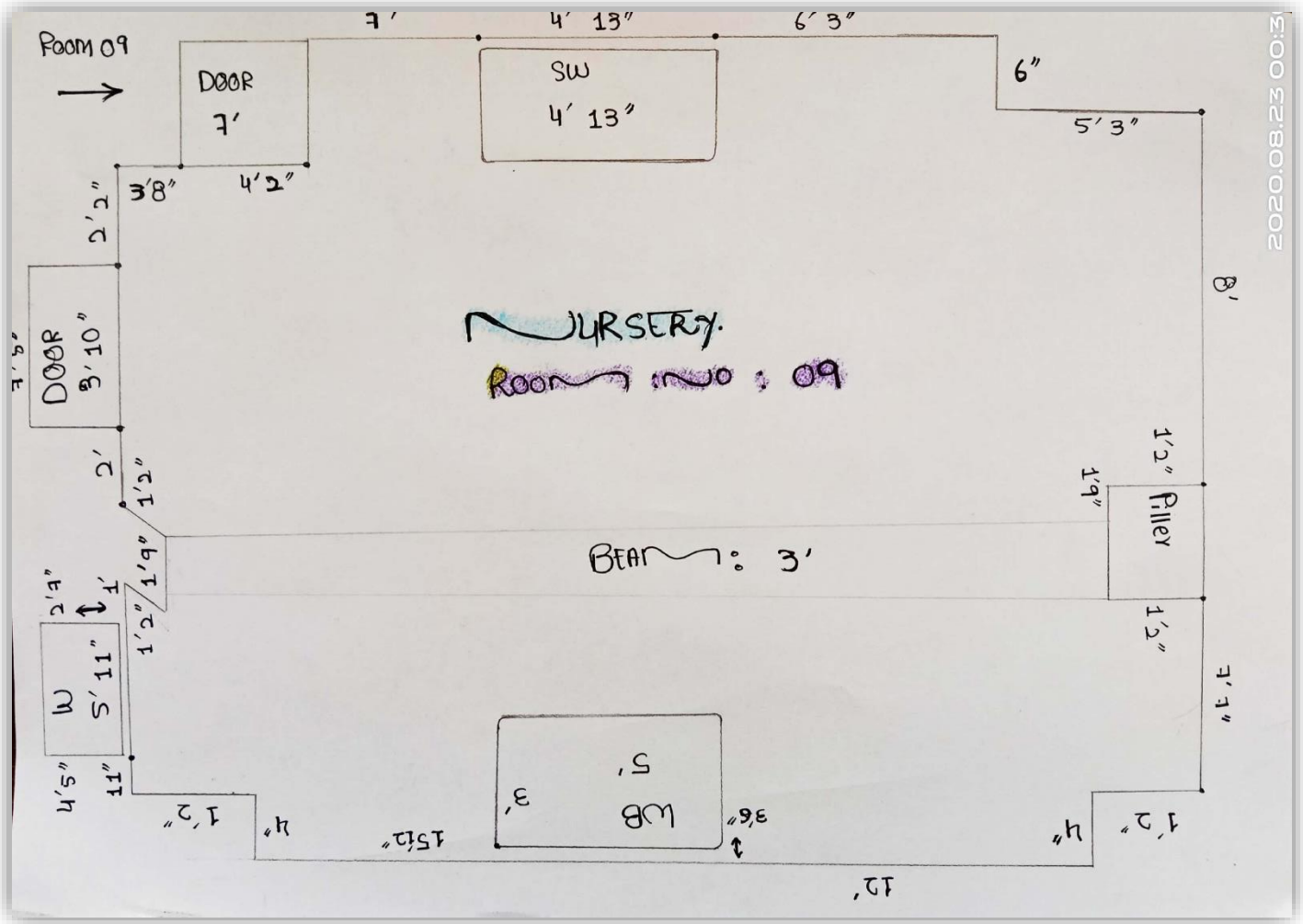
I. Project Description:

Any construction project to begin with starts with the Layout of the building or structure followed by Design and Analysis of the structure which is succeeded by cost estimation and planning for the said project.

The project is the interior of the nursery class of the Adamjee Model school (Formerly known as J.M.A. School). The interior is designed in 2D and then converted into 3D utilizing sundry commands of AutoCAD. The objective is to convert the hand drawn 2D adumbration of the admission office into a 3D interior of the admission office. In this project sundry commands are explored while engendering a 2D version and then converting it into 3D.

II. Realistic Image:



III. AutoCAD commands:

Following table 1, represents all commands which were used to create 3D model.

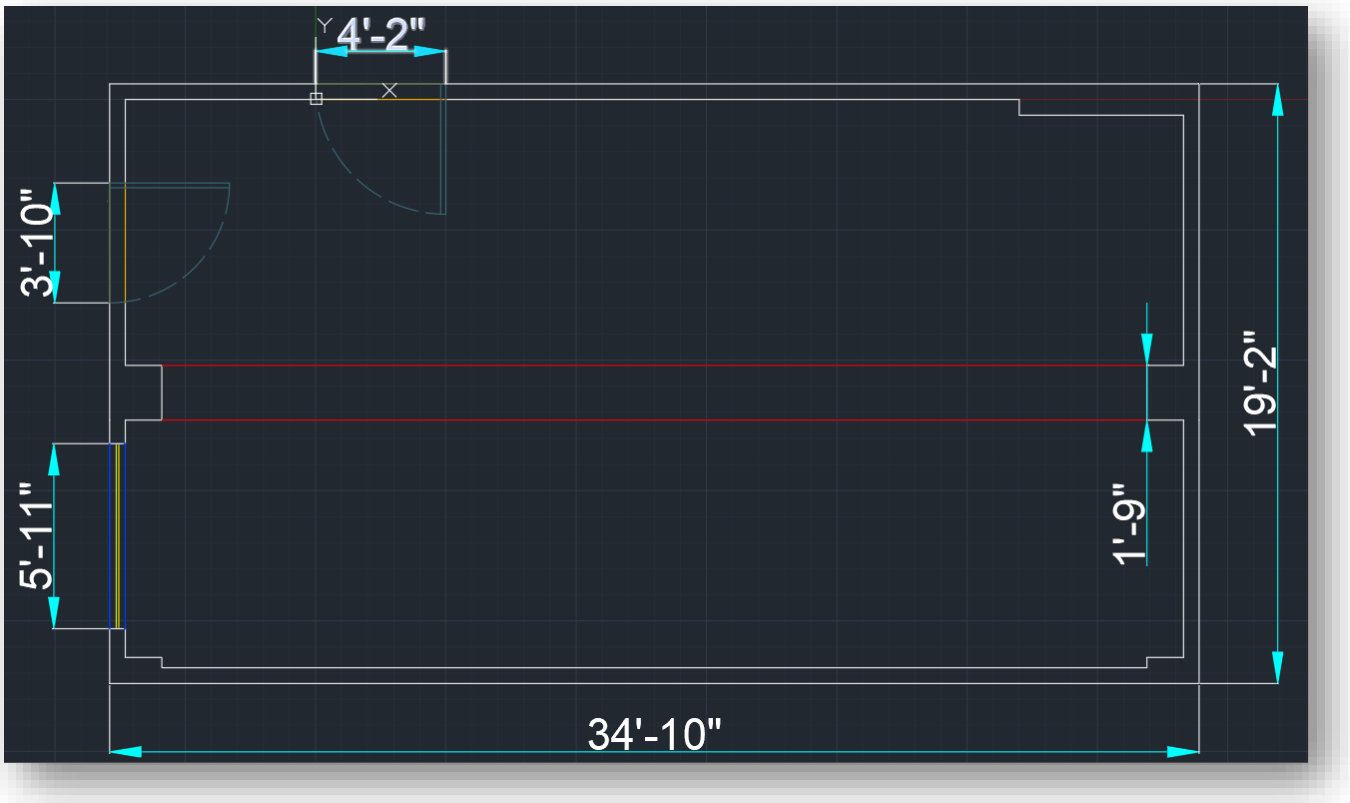
S.no	Commands	Purpose
1	Presspull	Presses or pulls bounded areas
2	Extrude	Creates a 3D solid by extruding a 2D or 3D curve.
3	Move	Moves objects a specified distance in a specified direction.
4	Subtract	Combines selected 3D solids or 2D regions by subtraction.
5	Offset	Creates concentric circles, parallel lines and parallel curves.
6	Rotate	Rotates object around a base point.
7	Trim	Trims object of meet the edges of other objects.
8	Dimension	Creates multiple types of dimensions within a single command.
9	Union	Combines selected 3D or 2D regions by addition
10	Fillet	Rounds and fillets the edges of the objects.
11	Line	Creates a straight-line segment.
12	Box	Creates a 3D solid box
13	UCS	Reorientation of the Grid.

Following table 2, represents the commands which were used and explored to create 3D model.

S.no	Commands
1	Camera
2	Stretch
3	3D Rotate

Dimensions:

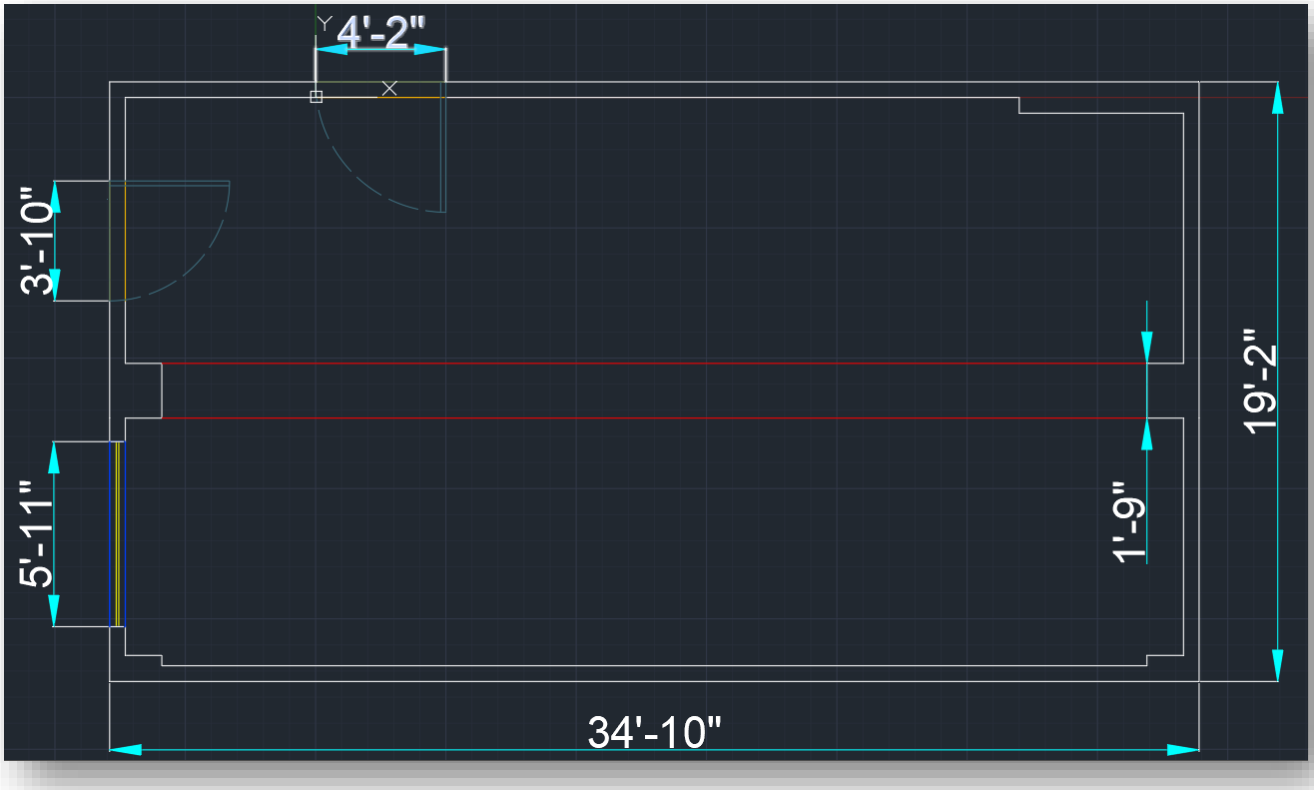
2D Dimension:



	Length	Width	Height
Entrance Door	2”	4’2”	7’
Side Door	3’10”	2”	7’5”
Window	5’11”	2”	4’5”
White Board	5’	3’	2”
Soft Board	5’	3’	2”
Pillar	1’2”	1’9”	11’6”
Beam	1’2”	1’9”	3’
Walls	Depends	6”	11’6”

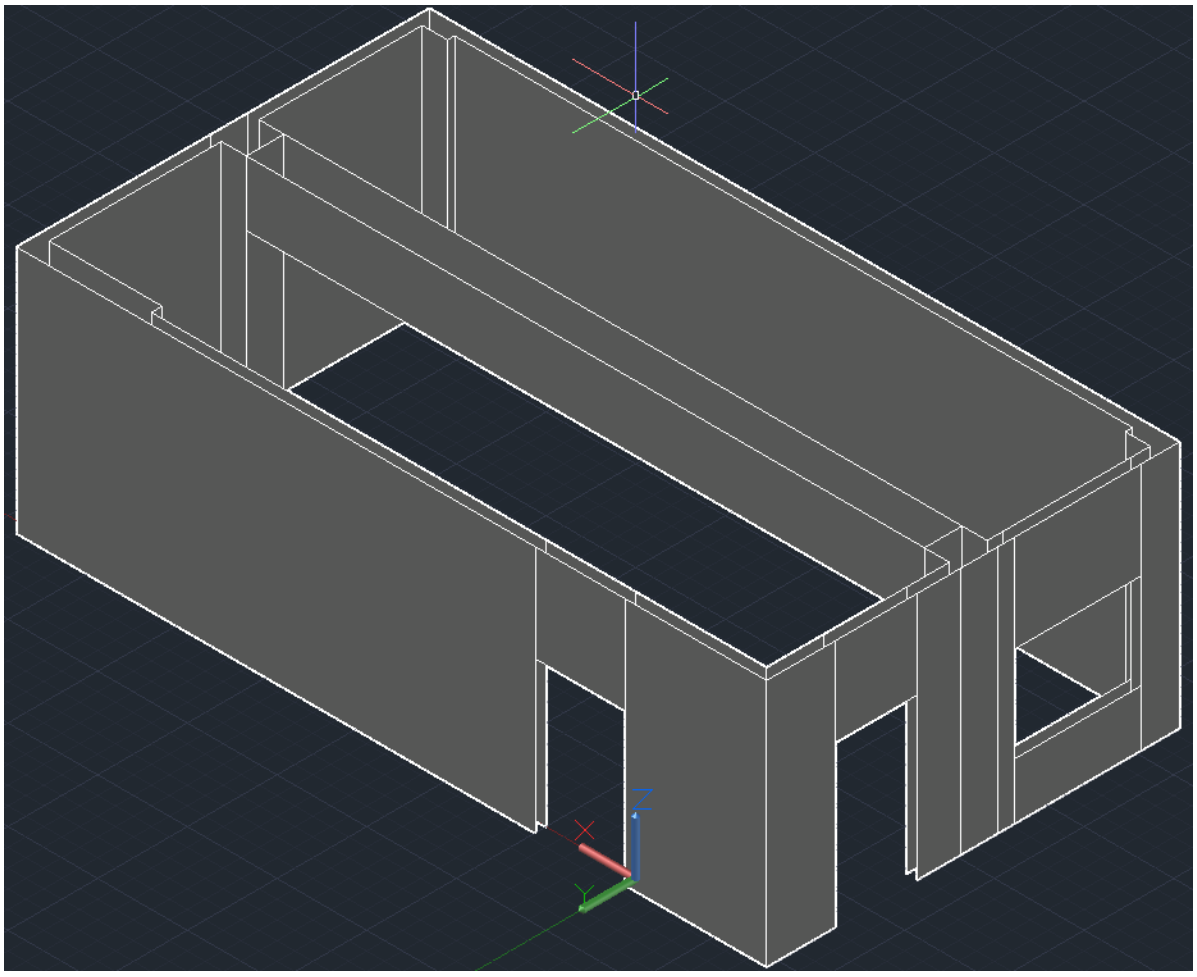
STEPS:

Step 1: Creating 2D

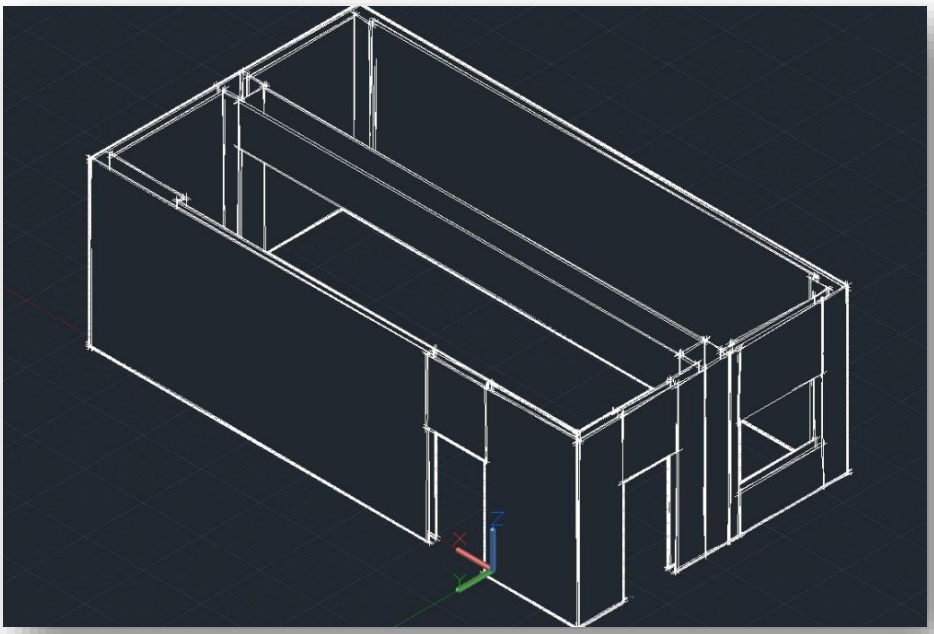


Step 2: Creating 3D (Building Walls, Pillars, Doors and Windows)

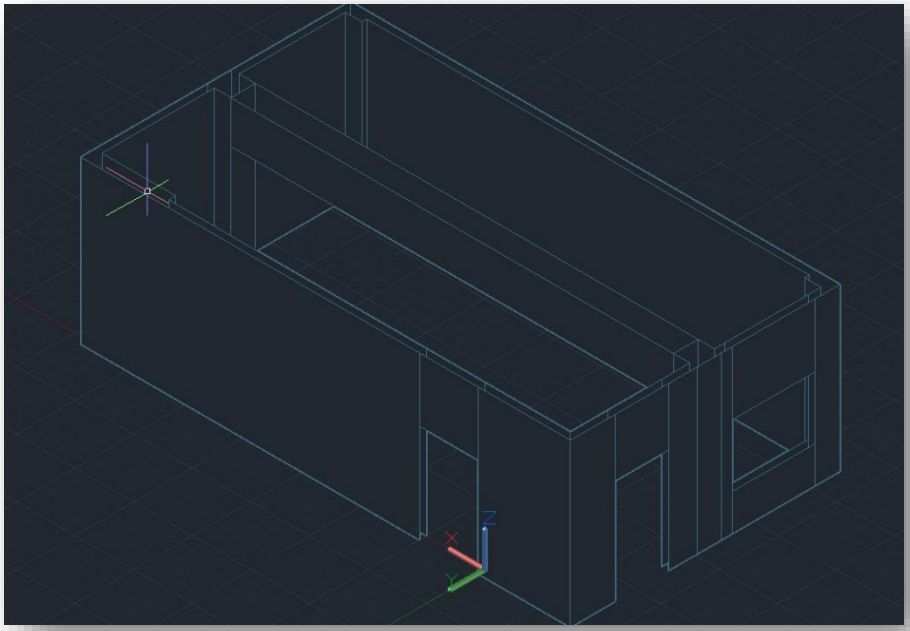
(Shades of Gray View)



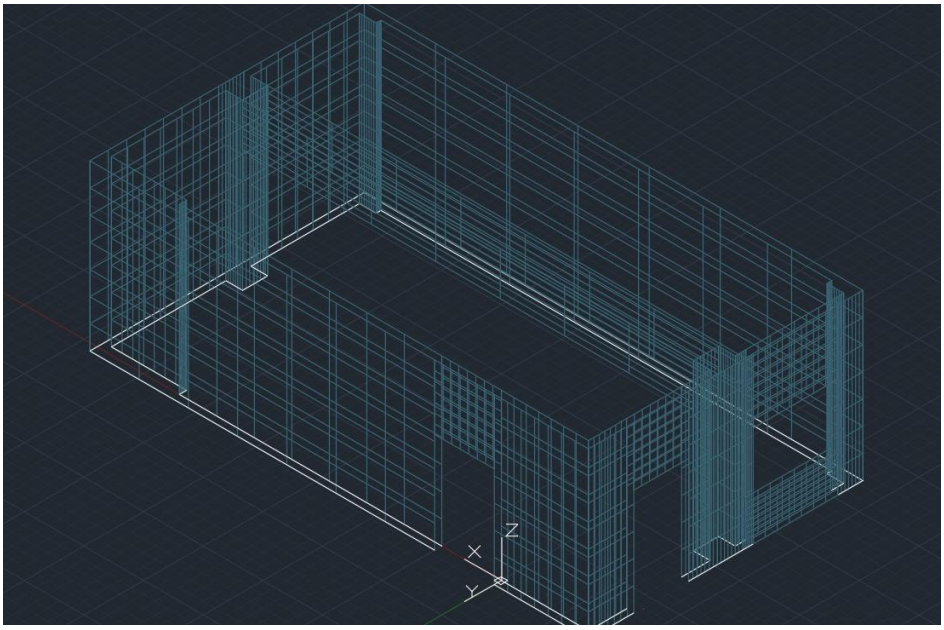
(Sketch View)



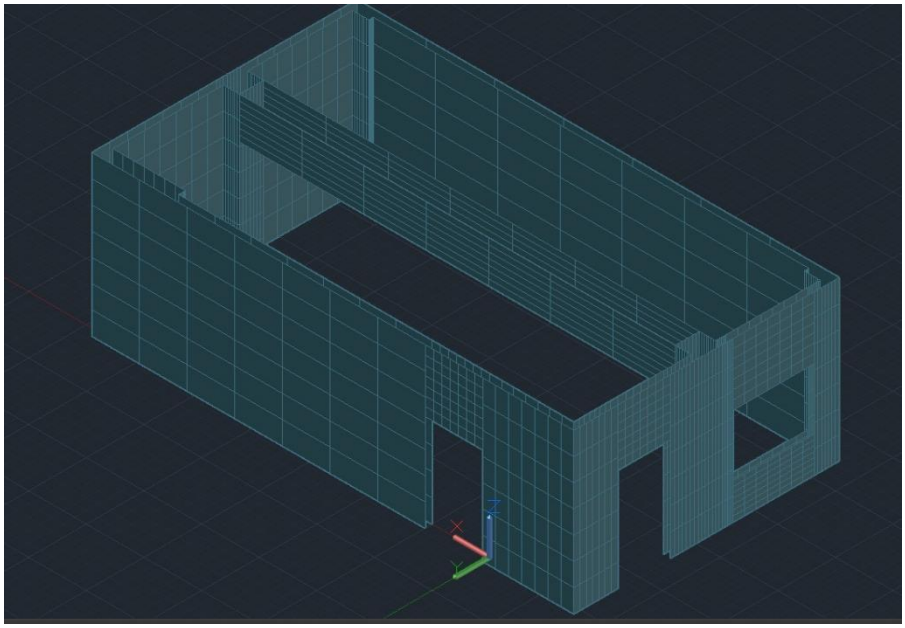
(Hidden View)



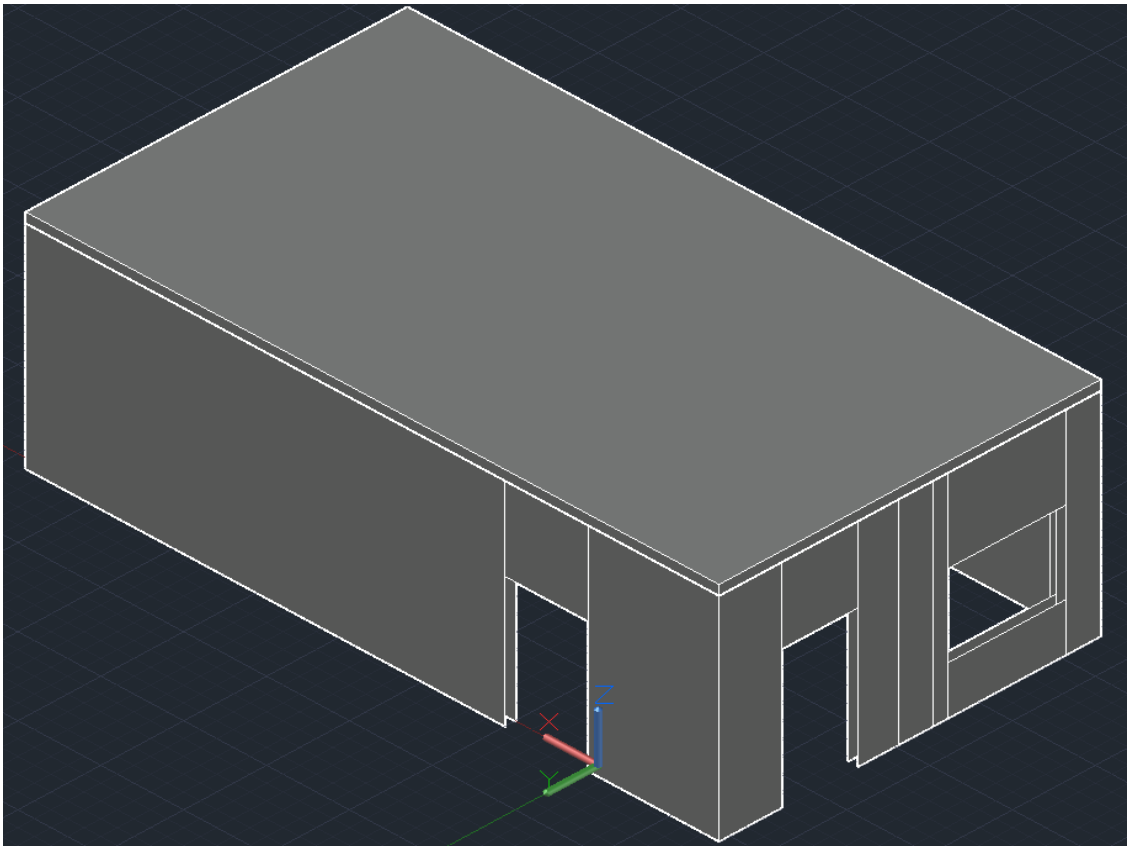
(Wireframe View)



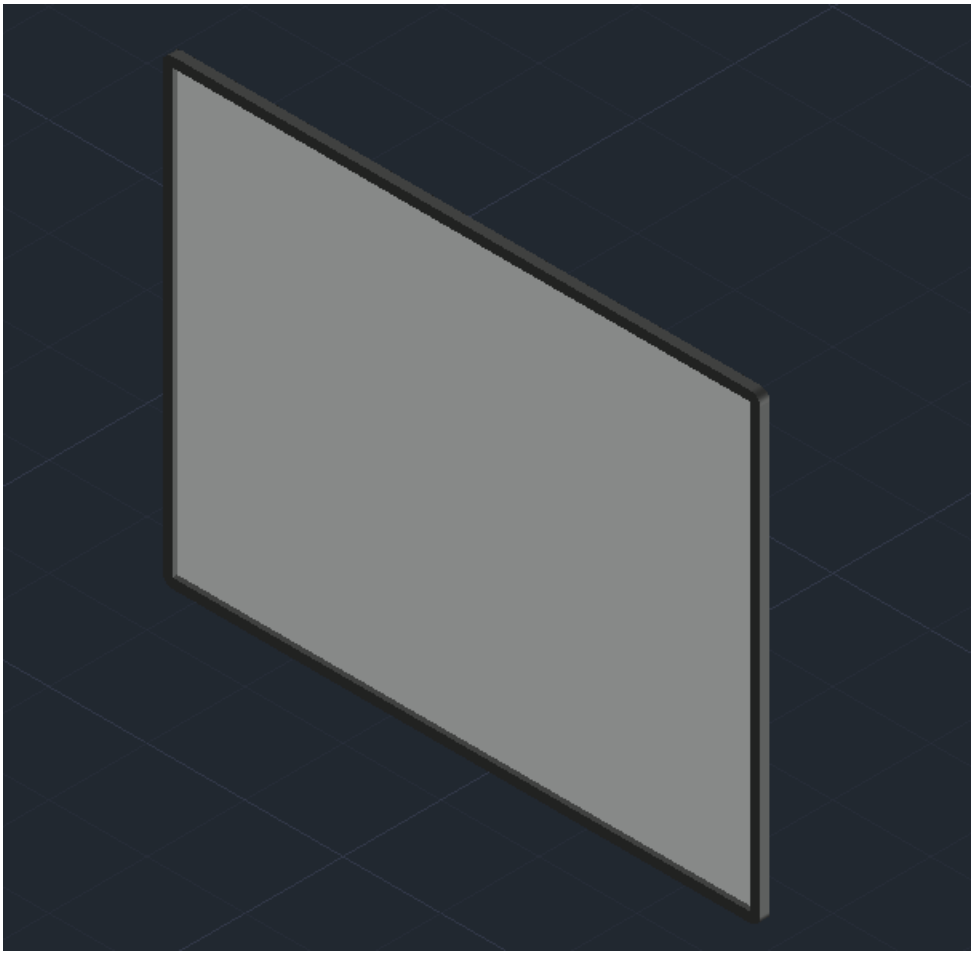
(Shaded with Edges View)



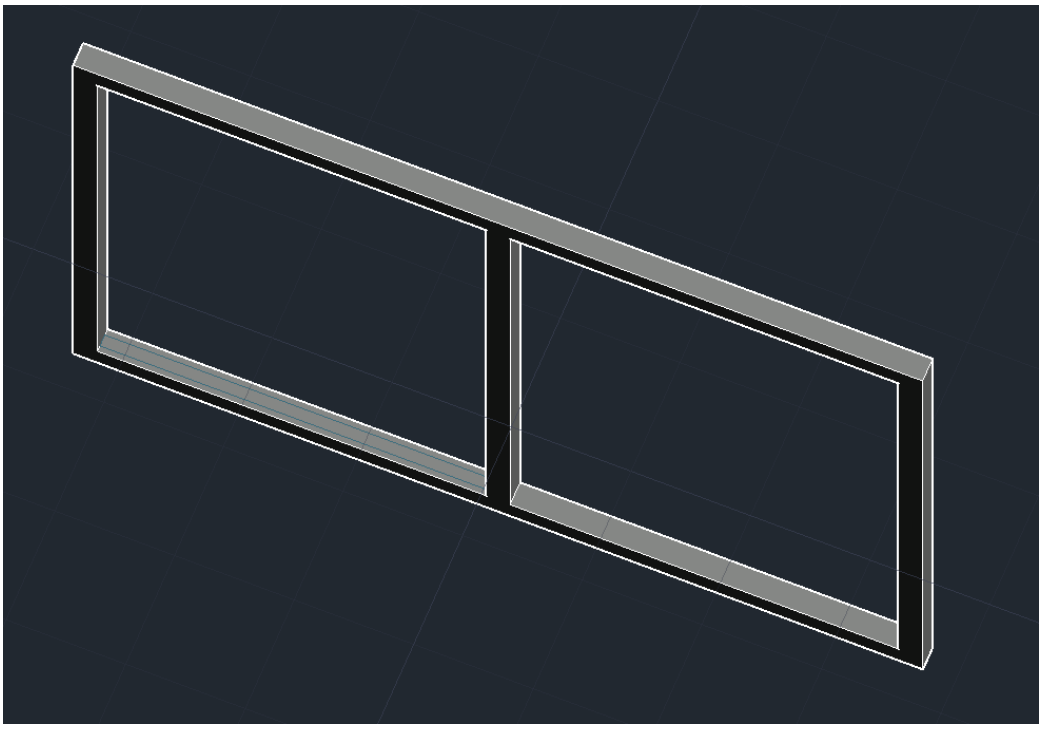
Step 3: Creating 3D (Building Roof)



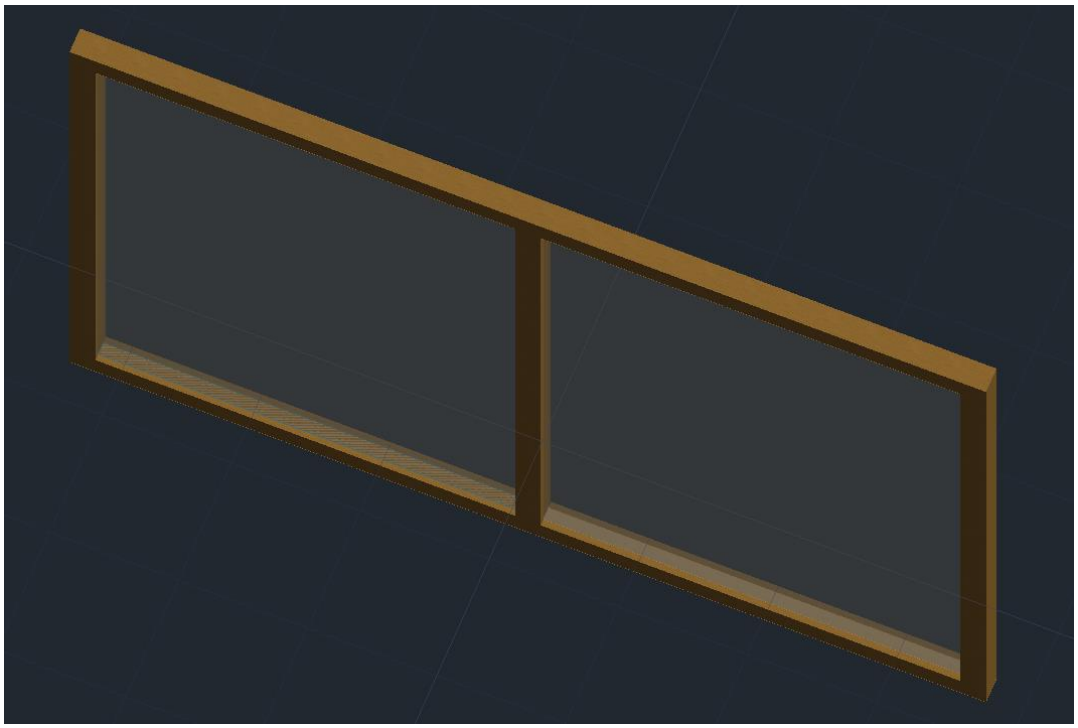
Step 4: Creating 3D (White Board)



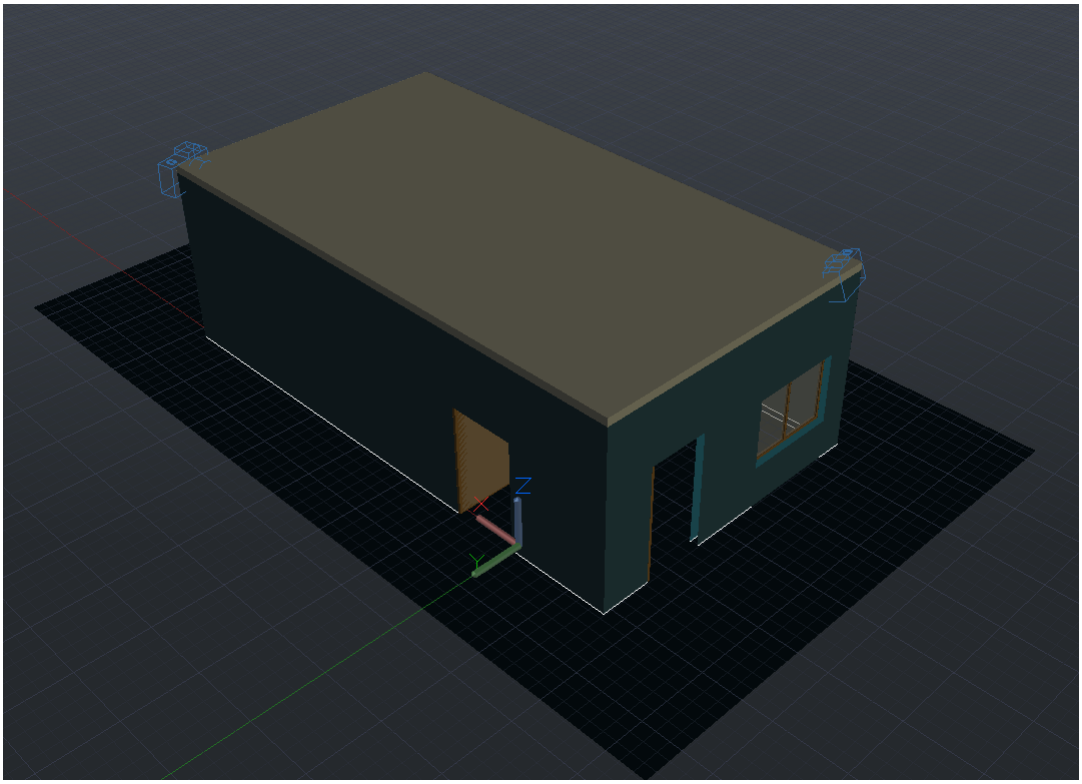
Step 5: Creating 3D (Window)

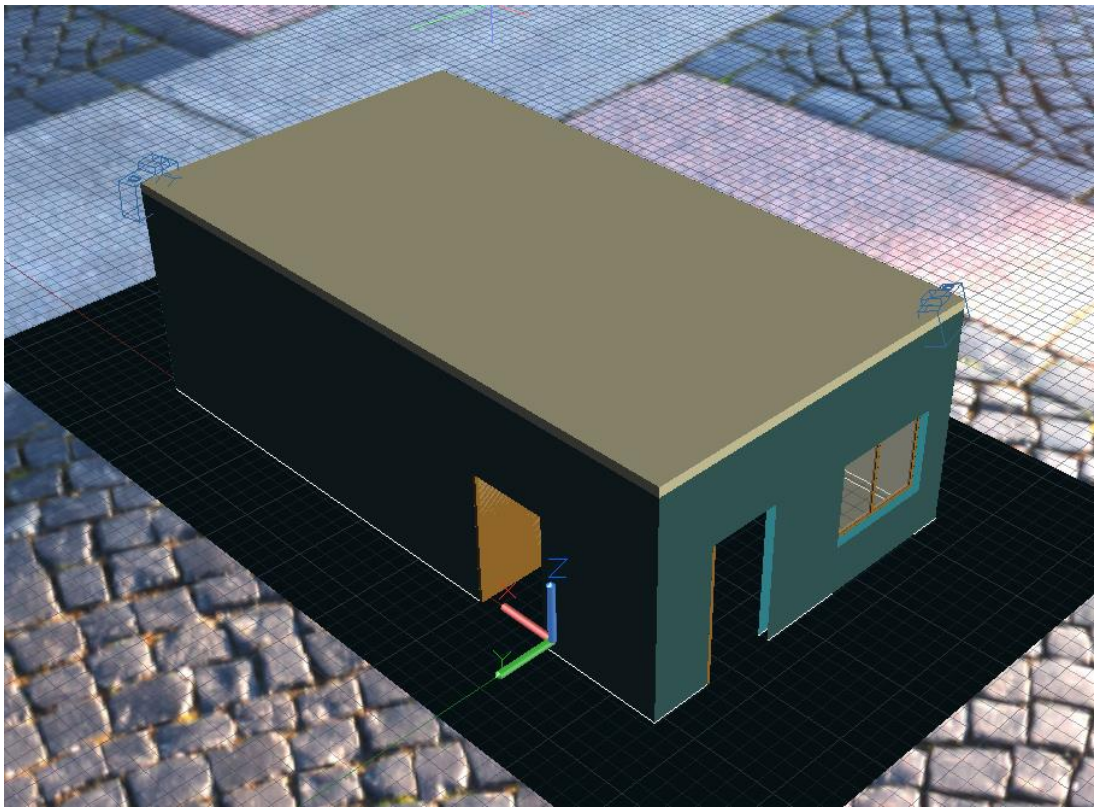


(Window with Material)



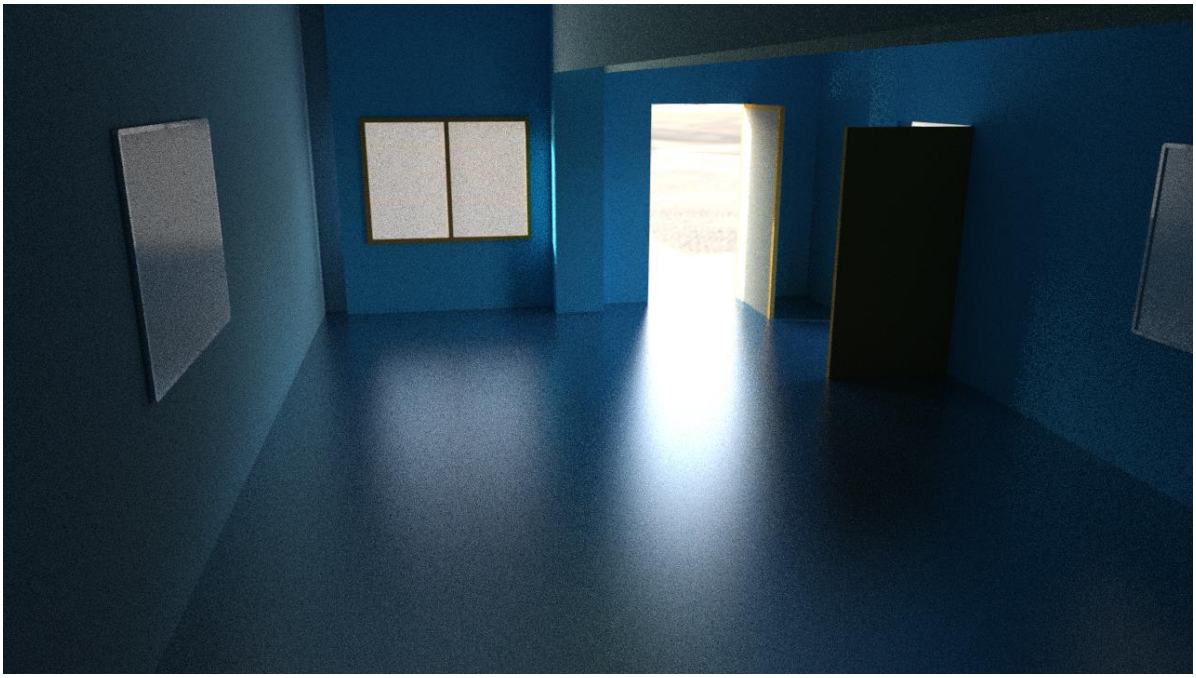
Step 6: Creating 3D (Adding material in the structure)





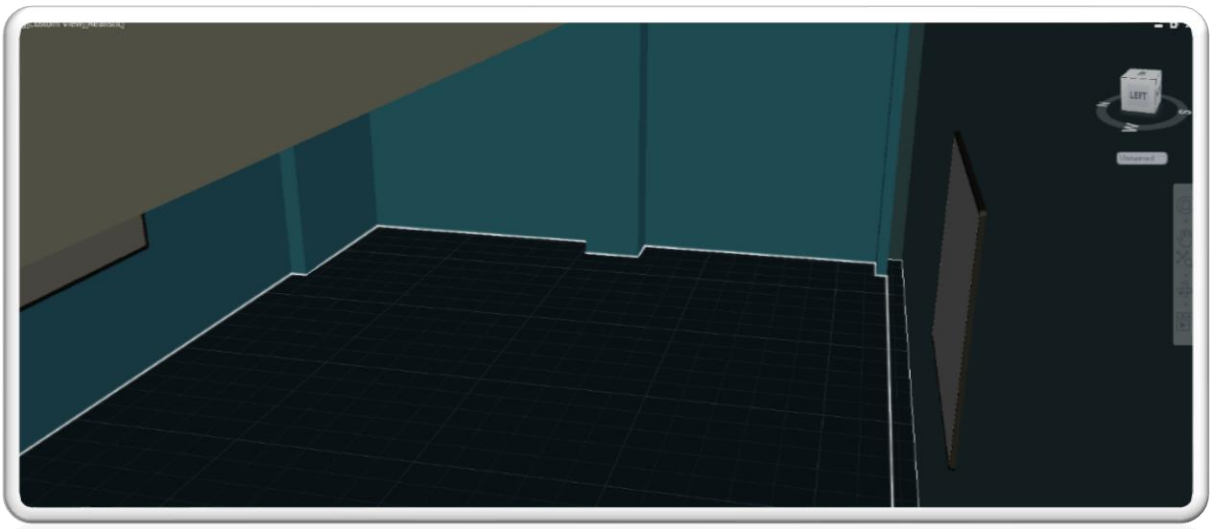
Step 7: Creating 3D (Rendering Process)

VI. Final Image

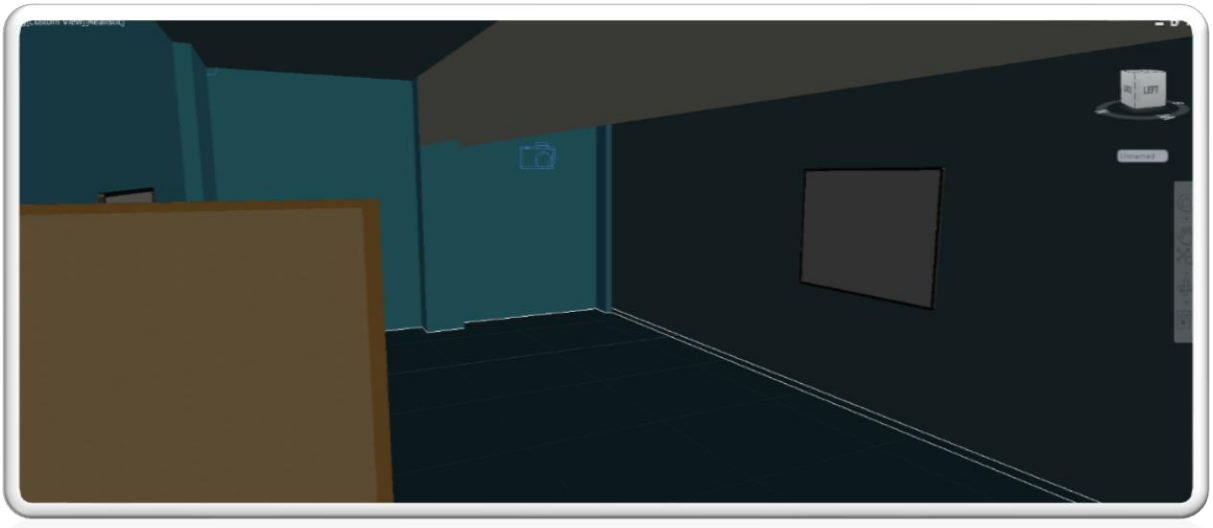


VII. Four different view of 3D model:

Camera 1



Camera 2



Camera 3

Camera 4