BIM Webinar Chapter 1

http://**competitions**.uni.xyz

Brief

In this course, we will walk you through the parametric modeling features that Revit Architecture has to offer. Revit Architecture by Autodesk is one of the leading applications in the industry for Building Information Modelling and is reshaping the way we design and build.

The ability to create smart 3d models, where each object has attributes that collectively create a robust database for coordinating and extracting information, is one of the most relevant skills any designer should learn today.

After this course, you will know the basics of Revit Architecture, and you will feel confident to start creating your BIM models and retrieve information for your presentations.

Autodesk Revit Architecture

What is BIM and Why is it a good fit for me?

Building Information Modeling (BIM) is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure.

BIM is used to design and document building and infrastructure designs. Every detail of a building is modeled in BIM. The model can be used for analysis to explore design options and to create visualizations that help stakeholders understand what the building will look like before it's built. The model is then used to generate the design documentation for construction.

" In any design and construction project there are an unlimited number of participants, as well as infinite interactions between parties. The projects are multidisciplinary and include information that is not necessary to all involved. So who is responsible for what in each project? How far does my responsibility go and where does yours start? BIM helps to order the complexity of this process. "

What will i Learn in this certification course?

We will start gripping up by brief introduction in BIM and the tools.

Then we will start following with the fundamentals and hierarchy of elements in Revit which will be finished by plugging up grids and working in an organised Project browser environment.

After finishing up, we will end up the course with the scheduling and by digging in through the project and shared environment, with extracting the quantities.

Why is it Important to know "I" in BIM

BIM is all about sharing and managing information – and there's heaps of data that can be used to enrich your models.

Just think of all the information that can be used to describe just one object in a system: dimensions, price, material type, brand, and several other types of data. But since you want to maintain a high design speed, plus a model that's light and easy to work with, how do you decide which information should actually be in it?

Find out in this course!

BIM is a Process, and not a tool.

Why to take this Webinar Course?

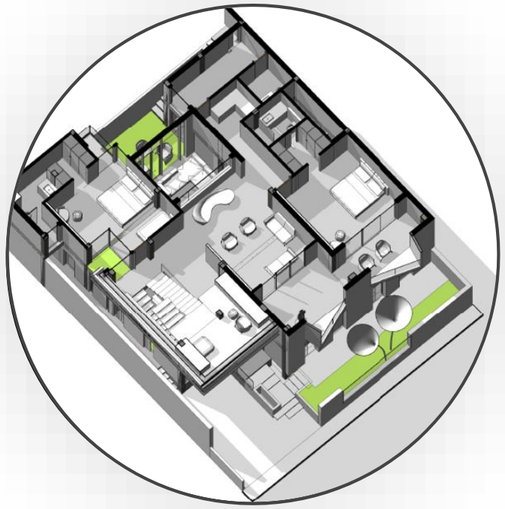
In AEC industry BIM is becoming an upcoming future need.

To get the hands on fundamental knowledge with the industry professionals, is a way to move forward in the Industry.

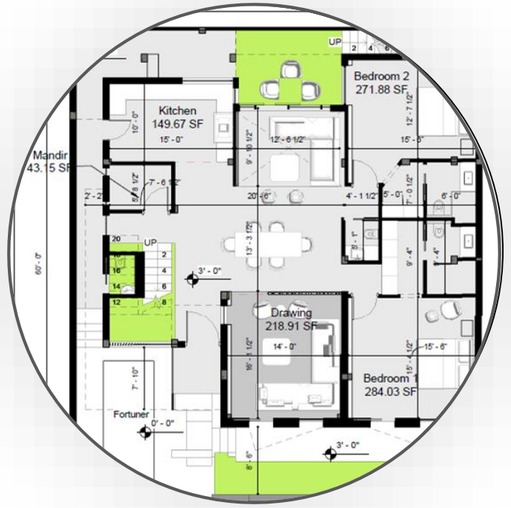
Rational and conventional methods of learning are still considered the way to stand out of the crowd.

Takeaways:

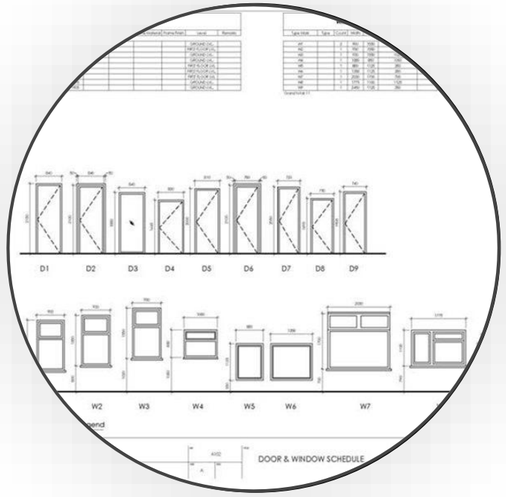
- How to set up grids and levels for a project.
- Creating Massings & Exploring Design Options
- Creating Schedules & Filters
- Set Project Phases
- Creating Architectural objects (Floors, Walls, Doors, Stairs & Facades)
- Creating Room Layouts
- Creating Presentation Documents, Plan-sheets, Renders, etc.



Creating Massing and Exploring Design Options



Floor Plans, Sections and other Details



Creating Schedules and Filters

Presentation & Documentation

1 CHAPTER

Bim and Hierarchy

Vertical hierarchy in revit, Understanding of system families,, Types and Elements. Basic differences to understand the foundation of Revit hierarchy

2 CHAPTER

Shared and Project Parameters

Shared and Project parameters, with browser organisation including scheduling QTO.

3 CHAPTER

Annotations

Explaining different types of annotations available and application of basic layout in drawings.

4 CHAPTER

Scheduling and QTO

Scheduling including D/W schedule, Material Quantities take off and other formatting and grouping of schedule quantities.

COURSE TIMINGS

22-06

NOV-DEC

Course Content

04

Chapters

+

Bonus Tips and Tricks

01 BIM and Hierarchy

- Understanding of BIM as a process
- Standards used in BIM throughout AEC industry
- BEP, and LOD Matrix - Overview
- Revit - Vertical hierarchy
- Revit - System families and project based families
- Revit - Managing Phases
- Revit - Exploring different types of system families, Walls, Curtain walls, etc
- Revit - Setting up file in central model

02 Shared and Project Parameters

- Revit - Browser organisation
- Revit - Setting up levels
- Revit - View Templates
- Revit - Setting up project with coordinates (True North, North etc)
- Revit - Exploring design options, and switching between design options
- Revit - Worksets and application

03 Annotations - Revit

- Revit - Exploring different types of Annotations Options
- Revit - Tagging up rooms
- Revit - Tagging doors and windows
- Revit - Staircase - Basic and Fundamentals
- Revit - Setting up of sheets
- Revit - Setting up of Keynote file

04 Scheduling and QTO - Revit

- Revit - Scheduling of Doors/ Windows
- Revit - Scheduling of materials
- Revit - Scheduling of Rooms
- Revit - Door/ Window legend
- Revit - Area Plans - Gross and Rentable

SESSION 1

TIMINGS

1100 – 1230 (GST)

Gulf Standard Time

CH1 - BIM and Hierarchy

CH 2 - Shared and Project parameters

CH 3 - Annotations

22 NOV

SESSION 1

SESSION 2

TIMINGS

1100 – 1230 (GST)

Gulf Standard Time

CH 4 - Scheduling and QTO

23 NOV

SESSION 2

SESSION 3

TIMINGS

1100 – 1230 (GST)

Gulf Standard Time

Bonus - Challenge, Tips & Tricks

29 NOV

SESSION 3

Rahul Sehgal

BIM Manager | Project coordinator | Industrial Designer | Architect

Based in Dubai, UAE and shuttling between India, Italy and London.He is an architect who has a wide domain in working nature, ranging from Architecture to furniture design and fabrication. He graduated with BArch from DCRUST, India in 2015 and completed Masters in *Industrial design for Architecture* from Politecnico Di Milano, Italy. Where he focused mainly on BIM management and computational design with hands on training on digital fabrication processes.

He is currently working as a BIM Manager in UAE and has completed projects from concept design to construction design. Some of his projects includes Mixed use residential projects, Hospitality design, and Retail design for Mercedes AMG and maserati.

Rahul Strongly believes in moving forward with the BIM integration in the project from initial design phase.He strictly follows the BS 1192 manual while setting up the whole project. Another important aspect which he endeavours is the project management and project coordination. He is constantly conducting workshops in India and in various other countries as well.

https://www.linkedin.com/in/rahul-sehgal-87261922/

Residence - Renovation

Brief:

Brief of this challenge coincidently derived from the real world design challenge.

Initially the client has gone to local contractor and got build his residence upto first floor level, without any consultation of an Architect. Soon, he realised that spaces inside are not fully lit and is not what he was expecting.

The Challenge:

- **Redesign the residence of 60’ x 50’, Not on abundant site, but already constructed site upto first floor. (To understand the phases in project)**
- **Requirements - same as constructed (already constructed plans will be provided) can be changed slightly**
- **Keeping in mind the cost and viability of the demolition and other factors .**

Submission Format:

- **Sheets including, drawings with existing, demolished and new design**
- **Schedule of demolished walls and new construction walls**
- **Presentation sheets, to make client more understandable on practical grounds.**

01

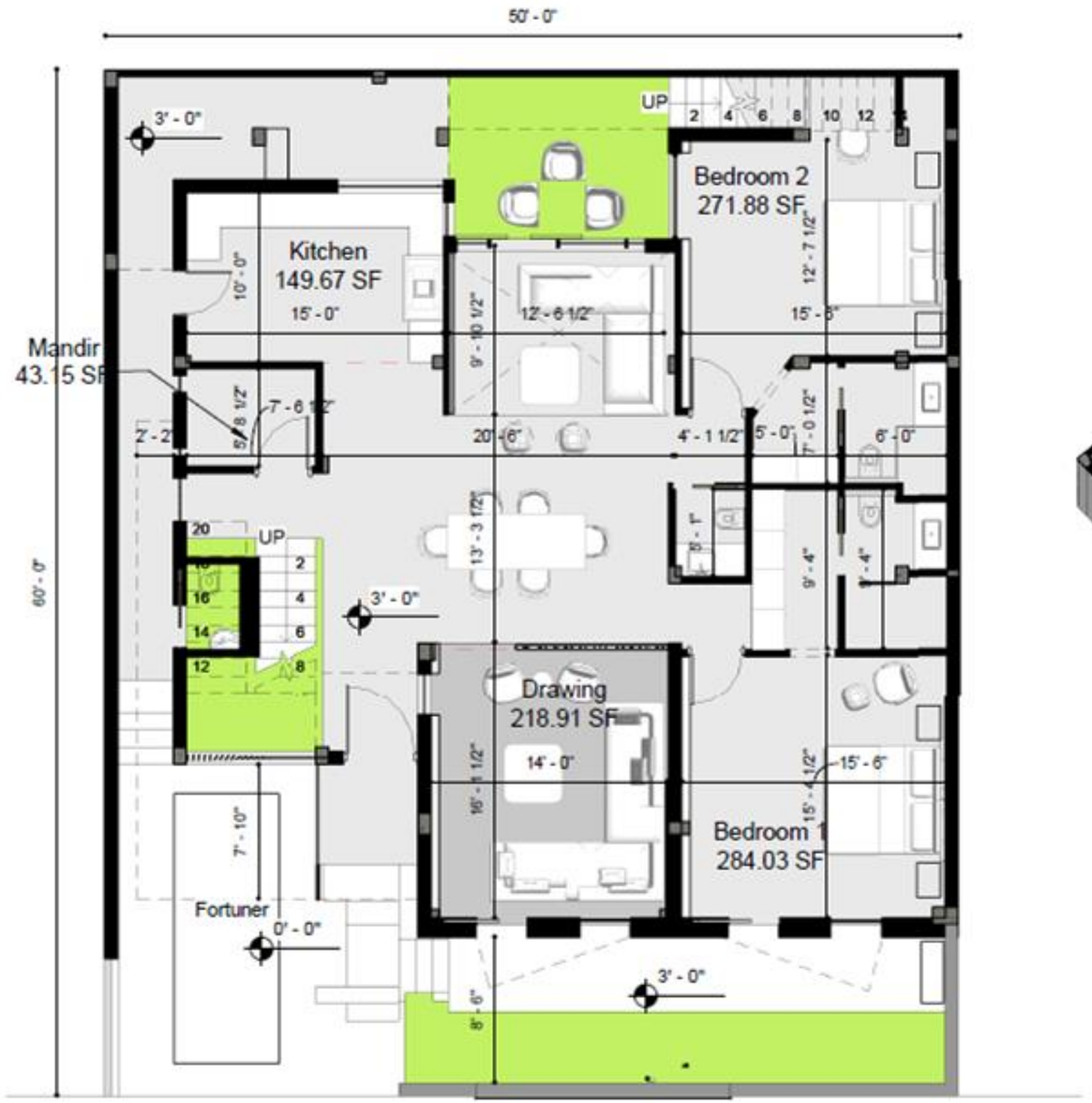
Include 3D elevations and views of the building taken out from Revit itself.

02

Doors and Window schedules also required in the submission.

23 NOV | **Webinar Challenge Release Date**

06 DEC | **Submission deadline for Webinar Challenge**



1 Ground Floor

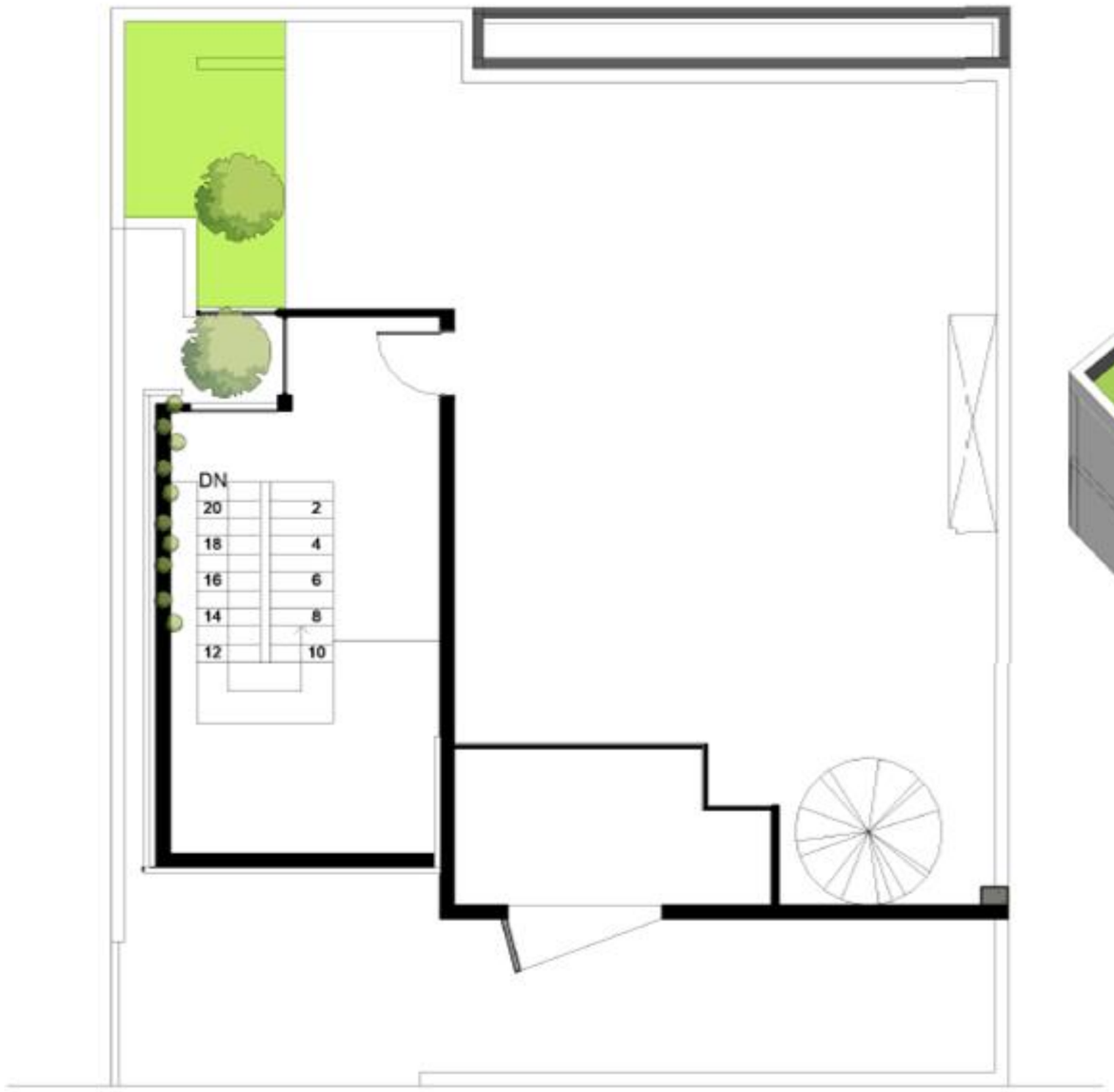
1 : 100

2 Ground Floor - 3D

2 01. First Floor

1 : 100

1 01. First Floor - 3D



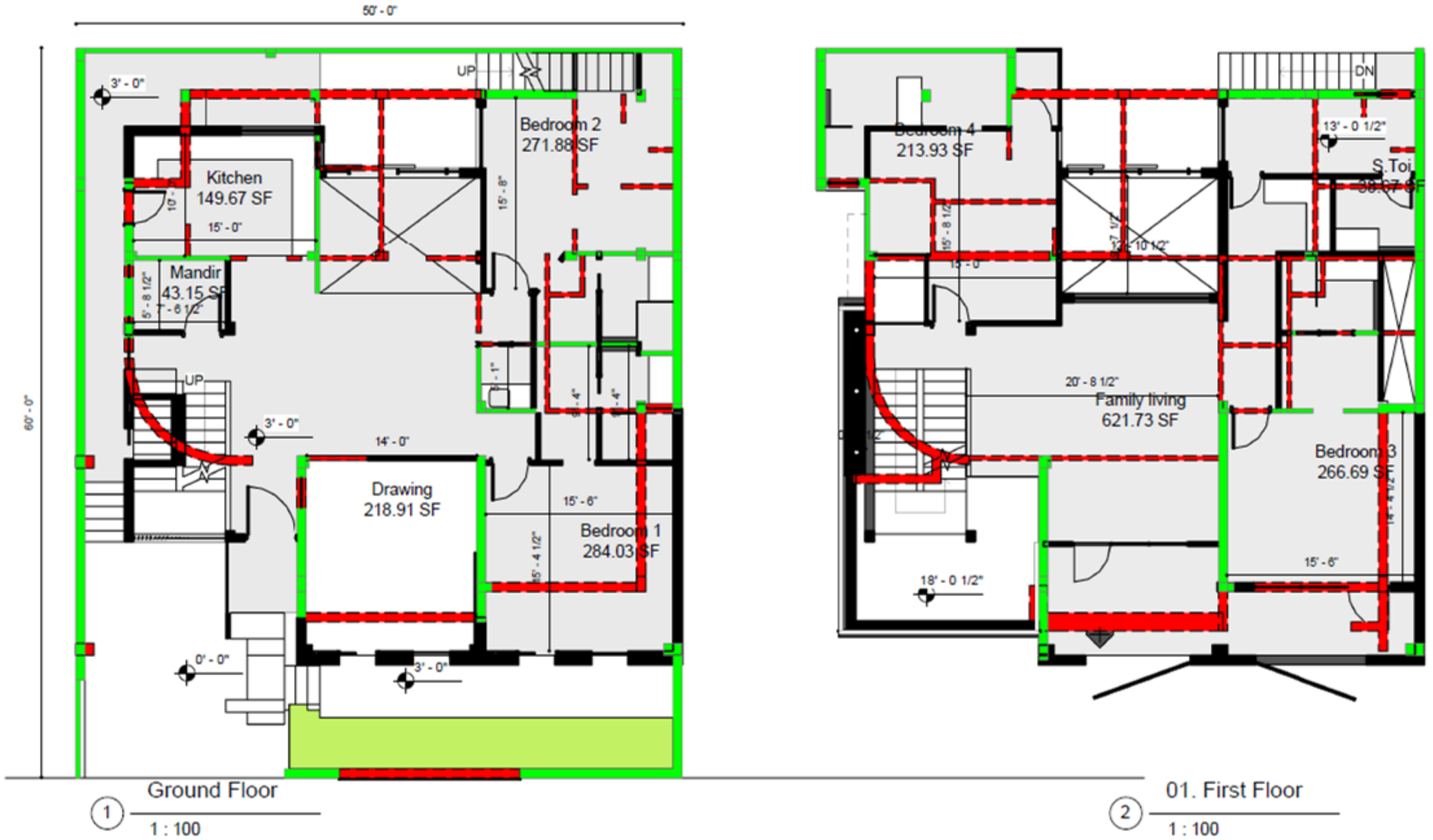
2 02. Second Floor Plan

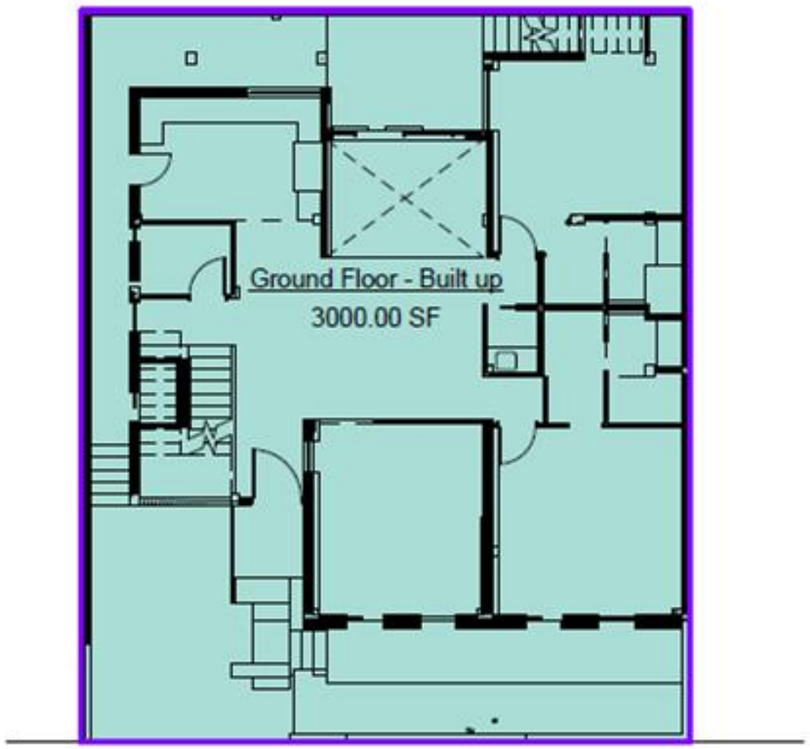
1 : 100

1 02. Second Floor 3D

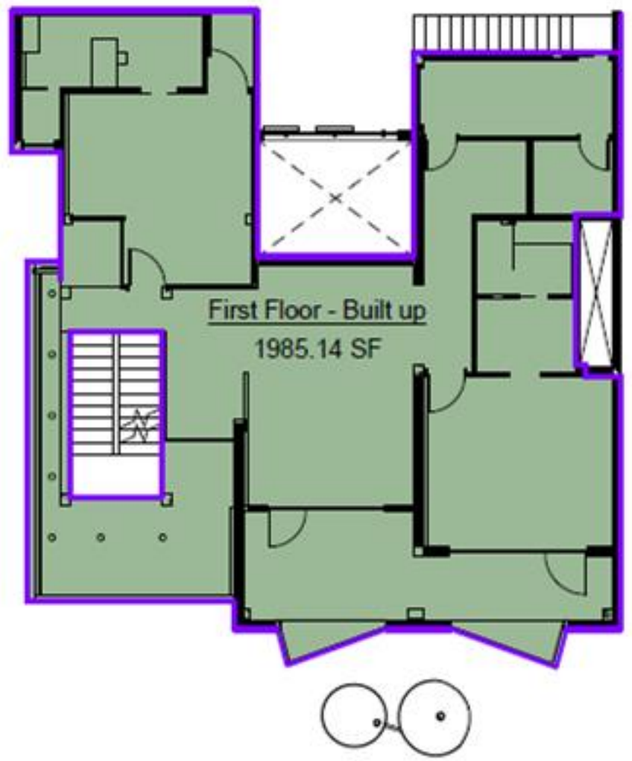
04. Mumty Level
36' - 0 1/2"
03. Second Floor
24' - 6 1/2"
02. First Floor
13' - 0 1/2"
01. Ground Floor
3' - 0"
00. Road level
0' - 0"

1 South
1:50

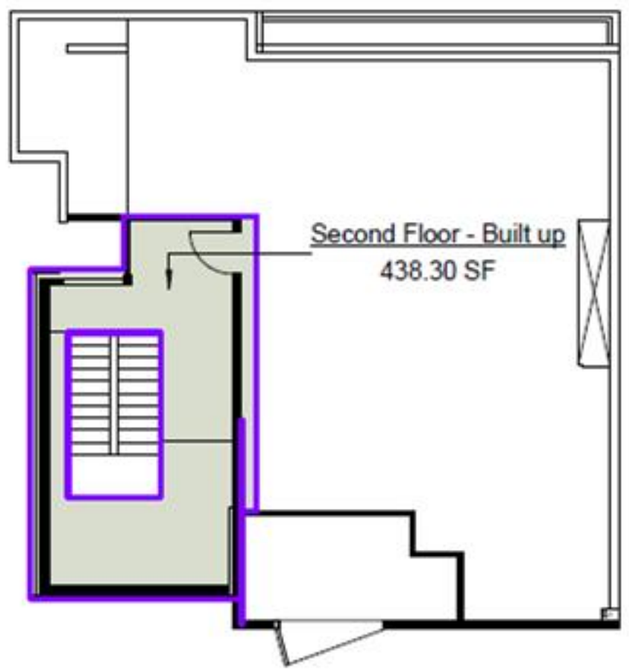

50' - 0"
60' - 0"
3' - 0"
UP
Kitchen
149.67 SF
10'
15' - 0"
Mandir
43.15 SF
5' - 8 1/2"
7' - 6 1/2"
Bedroom 2
271.88 SF
15' - 8"
UP
3' - 0"
14' - 0"
Drawing
218.91 SF
15' - 6"
Bedroom 1
284.03 SF
15' - 4 1/2"
0' - 0"
3' - 0"
Ground Floor
1 : 100
DN
Bedroom 4
213.93 SF
13' - 0 1/2"
S.Toi
15' - 8 1/2"
15' - 0
10' 1/2"
20' - 8 1/2"
Family living
621.73 SF
Bedroom 3
266.69 SF
15' - 6"
18' - 0 1/2"
01. First Floor
1 : 100
Demolish Walls
Retained Walls
New Construction



① 01. Ground Floor Area
1 : 150



② 02. First Floor Area
1 : 150



③ 03. Second Floor Area
1 : 150

Built Up Area

Name	Area
01. Ground Floor	
Ground Floor - Built up	3000.00 SF
02. First Floor	
First Floor - Built up	1985.14 SF
03. Second Floor	

Built Up Area

Name	Area
Second Floor - Built up	438.30 SF
Total Built up Area	5423.44 SF

PREMISE | OUTCOME | STRUCTURE | TIMELINE | INSTRUCTOR

CHALLENGE

Overview | (Specifics)

Basics and Fundamentals of Revit

Vertical hierarchy in revit, Understanding of system families, Shared and Project parameters, with browser organisation including scheduling QTO.

Chapter 1

Revit Advanced

Application of filters and usage of view template, Family editing, mass exploration, interportability from Rh/ Gh to Rvt/ Dyn, Structural application and Revit insight analysis for green building design

Chapter 2

Dynamo and BIM 360

Exploration with dynamo nodes and graphs. Various graphs to be used in day to day work and developed with an extensive practical experience. Running those graphs with dynamo player.

Chapter 3

Navisworks and CoBie data explorations

with clash detection and WBS (work breakdown structure and CBS cost breakdown structure, with practical knowledge and experience of BS 1192

Chapter 4

Upcoming Chapters

Each Webinar session will be **1.5 Hours long with live QnA's.** The Webinar will take place on **ZOHO Webinar Platform.** Participants will be able to ask questions by commenting on the videos, this gives Webinars a more interactive community environment.

All videos will be available, including the live streams, for your viewing as much as you like, even after the live stream as ended. This means you can enjoy the videos even if you are not available for the live stream session.

All Webinars will be conducted in **English** and **there is no previous experience of the topics required.**

FAQ

Q. Who can take part in the Webinars?

A. Webinars are open for all, even if you are a school student or you are working professional. You are welcome here to be a part of the webinars.

Q. What is the purpose of the Webinars?

A. Webinars are intended to improve the skill-based experiences among designers or budding designers.

Q. How do I ensure that I will be learning new skills in these Webinars?

A. Webinars are intended to improve the skill-based experiences among designers or budding designers. You can refer to the brief for the detailed structure of the webinar before registering.

Q. How many people would be participating in the webinar?

A. A maximum of 50 people are allowed for 1 batch of the webinar. In order to maintain the right balance between students and mentors, we limit the ratio of 1:50 between Mentor to Student.

Q. What if i miss a session of webinar?

A. Webinar lectures will be available for offline viewing after all the webinar sessions have ended. Students can revisit the sessions as many times as they want after they have done the registration.

Q. What would be duration of One Webinar Session?

A. One Webinar Session would last between 60-90 mins depending on the course structure and the mentor..

Q. Who can take part in the Webinars?

A. Webinars are open for all, even if you are a school student or you are working professional. You are welcome here to be a part of the webinars.

Q. How long would be one Webinar course?

A. One Webinar course would last as long as 7 days. There will be three sessions one day each, giving enough time for participants to complete their webinar challenge

Q. Who reserve the rights of the outcome of the competition/workshop?

A. Organizers/Mentor/Participants all reserve the rights of the content created or produced during/after the workshop. For details read our terms of service

The winning entry will receive a Certificate of Merit, based on the evaluation done by the mentor on the challenge given after the webinar has concluded. All the other participants will receive an E-Certificate for participation.

AWARDS

Uni Classrooms serves as a part of UNI in the realm of **Online Learning and portfolio building oriented design exercises.** Classrooms provide an online interactive cultural environment Online Webinars tend to bridge the Knowledge gap between students and the industry requirements. Learn what industry requires and be on the top of the requirement charts for the companies. Also get an edge from your peers.It intends to give opportunity to young students to explore their design skills in refreshing problems similar to their curriculum. The online lectures followed by related design challenges helps to cement the skills learnt in the webinar. Classroom Competitions embarks on the idea of creating fundamental design challenges to enhance the learning experience and education. It is a research initiative dedicated to providing opportunities for students of design schools from all domains to explore the ideas that go beyond the restrictions of usual architectural discourse.

Queries: support@uni.xyz
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ABOUT

Towards creating **new design paradigm.**