Interior Design Techniques Demystified

Course Objectives	**AutoCAD:** 1. User interface and basic navigation. 2. Insight into fundamental drawing and editing commands (line, circle, trim, etc.). 3. Exploring advanced editing tools such as fillet, chamfer, and array. 4. Explore layers, blocks, and attributes for efficient drawing management. 5. Exploring 3D modeling capabilities, including basic solid modeling and rendering. **SketchUp:** 1. Basic drawing tools (line, rectangle, circle, etc.) and their modifications. 2. Mastering the push/pull tool for creating 3D forms. 3. Groups and components for efficient model organization. 4. Exploring advanced modeling techniques like follow me, offset, and rotate. 5. Exploring plugins and extensions to extend SketchUp's capabilities. **V- Ray:** 1. Explore the V-Ray interface and basic settings. 2. Insight about V-Ray materials and texture mapping. 3. Mastering lighting techniques, including different light types and setups. 4. Explore camera settings for achieving desired perspectives. 5. Exploring V-Ray's render settings for quality and efficiency. **V-Ray:** 1. V-Ray interface and basic settings. 2. V-Ray materials and texture mapping. 3. Mastering lighting techniques, including different light types and setups. 4. Camera settings for achieving desired perspectives. 5. Exploring V-Ray's render settings for quality and efficiency. **Lumion:** 1. Getting familiar with the Lumion interface and navigation.

	2. Import process for models and assets from other software. 3. Lumion's library of materials, objects, and effects. 4. Mastering scene creation and composition techniques. 5. Exploring lighting setups and effects for different moods and times of day. 6. Camera animation and path creation. 7. Rendering settings and optimization for speed and quality. 8. Exploring post-processing effects for enhancing renders. 9. Create and present architectural visualizations effectively using Lumion. 10. Exploring Walkthrough effects for realistic view. **Cohoom:** 1. Cohoom platform interface and navigation. 2. To create and customize virtual spaces within Cohoom. 3. Mastering the placement and manipulation of furniture and decor items in virtual rooms. 4. Exploring Cohoom's collaboration features for real-time design discussions and feedback. 5. To import and export 3D models and designs into Cohoom. 6. Insight into various presentation and visualization tools available in Cohoom for showcasing designs. 7. Exploring the integration of Cohoom with other design software and platforms. 8. Best practices for creating immersive and engaging virtual experiences using Cohoom. 9. Exploring advanced features and functionalities of Cohoom, such as lighting and material customization. 10. Cohoom's analytics and reporting capabilities for design performance evaluation and optimization. 11. Importing 3d models from Sketchup 12. To create models in cohoom by using Customized tools 13. Types of light and its settings

Course Outcomes	**AutoCAD:** 1. 2D Drafting: Create accurate 2D drawings using AutoCAD, including floor plans, elevations, and sections. 2. Hands-on experience of 3D Modeling: Gain knowledge of basic 3D modeling principles and techniques in AutoCAD, enabling them to create simple 3D objects and models. 3. Application in Architectural Design: Apply AutoCAD skills to architectural design tasks, such as creating detailed drawings for residential and commercial buildings. 4. Collaboration and Documentation: Collaborate with others using AutoCAD through file sharing and markup tools, as well as how to create professional documentation sets for construction projects. **SketchUp:** 1. 3D Modeling Proficiency: Develop proficiency in creating 3D models of buildings, interiors, and objects using SketchUp's intuitive interface and tools. 2. Visualization Skills: Visualize design concepts and ideas effectively in SketchUp, including applying textures, materials, and lighting to enhance realism. 3. Integration with Other Software: Integrate SketchUp models with other software tools commonly used in architecture and design workflows, such as AutoCAD and Revit. 4. Rendering and Presentation: Gain skills in creating high-quality renderings and presentations using SketchUp, including exporting images and creating walkthrough animations. **V- Ray:** 1. Advanced Rendering Techniques: Render advanced techniques in V-Ray, including global illumination, image-based lighting, and photorealistic rendering. 2. Material Creation and Texturing: Exhibit skills in creating and applying realistic materials and textures in V-Ray to achieve high- quality renderings. 3. Lighting and Scene Setup: Set up lighting in V-Ray scenes, including using different types of lights and optimizing lighting for various design scenarios. 4. Rendering Optimization: Optimize render settings and

	reducing render times in V-Ray, improving efficiency in the rendering process. **Lumion**: 1. Real-time Rendering Techniques: Use Lumion's real-time rendering capabilities to create immersive visualizations of architectural designs. 2. Material and Landscape Design: Exhibit skills in applying materials, textures, and landscaping elements to enhance the realism and **aesthetic** appeal of their Lumion projects. 3. Animation and Visualization: Create cinematic animations and walkthroughs in Lumion to effectively communicate design concepts and ideas. 4. Post-production and Effects: Apply post-production effects and enhancements to their Lumion renders, including adjusting lighting, adding effects, and editing images. 5. Presentation Skills: Develop skills in presenting their designs using Lumion, including creating compelling presentations for clients, stakeholders, and design reviews. **Cohoom** 1. **Virtual Space Design:** Design and customize virtual spaces using Cohoom, including the placement of furniture, decor items, and architectural elements. 2. **Visualization and Presentation Skills:** Develop the skills to create compelling visual presentations of their designs using Cohoom's presentation tools, enhancing their ability to communicate design concepts effectively. 3. **Integration with Design Workflows:** Integrate Cohoom into their existing design workflows, including importing and exporting 3D models and designs from other software platforms. 4. **Virtual Experience Creation:** Create immersive and engaging virtual experiences for clients and users using Cohoom, enhancing their ability to showcase design concepts in a dynamic and interactive manner. 5. **Analytical and Reporting Skills:** Utilize Cohoom's analytics and reporting capabilities to evaluate design performance and make data-driven decisions for optimization.

	6. **Project Management and Planning:** Develop project management skills through the planning and execution of virtual design projects using Cohoom, including timeline management and resource allocation.

Course Duration: 45 Hours

Course Content:

AUTOCAD

UNIT-I BASIC TOOLS OF AUTOCAD AND ITS USAGE

AutoCAD offers a vast array of tools and commands for creating, editing, and annotating drawings. Here's an overview of some basic tools and their common uses:

- Line (L).
- Circle (C).
- Trim (TR) and Extend (EX)
- Array (ARRAY
- Fillet (FILLET)
- Champer(chamfer)

These are just a few of the basic tools available in AutoCAD. The software offers a comprehensive suite of features and commands tailored to various design tasks, allowing users to create intricate drawings with precision and efficiency.

UNIT-II –HOUSE PLANING

Creating a house plan in AutoCAD involves several steps. Here's a step-by-step guide to help you get started:

- Start a New Drawing: Open AutoCAD and start a new drawing file. Set the units and scale for your drawing based on your preferences and requirements.

- Draw the Outline: Use the Line or Rectangle tool to draw the outline of the house. This will serve as the perimeter of the building. Ensure that you accurately specify the dimensions of the walls.

- Add Walls: Draw walls inside the outline to define the layout of rooms. Use the Line tool to draw each wall segment, ensuring they are connected and form closed shapes. You can use the Offset tool to create walls of consistent thickness.

- Insert Doors and Windows: Use the Block or Insert command to add door and window blocks to the walls. You can find standard door and window blocks in AutoCAD's library or create your own. Ensure that they are properly aligned and sized.

- Include Interior Features: Draw interior features such as stairs, closets, and built-in furniture using lines, rectangles, or custom blocks. Pay attention to accurate placement and dimensions.

- Add Exterior Features: Include exterior features like porches, decks, or

landscaping elements around the house. Again, use lines, rectangles, or custom blocks to represent these features.

- Annotate with Dimensions: Use the Dimension tool to add dimensions to the drawing. Dimension key areas such as room sizes, wall lengths, door and window placements, and any other relevant dimensions.

- Label Rooms and Spaces: Add text labels to identify each room and space within the house. You can use the Text tool to add labels such as "Living Room," "Bedroom 1," "Kitchen," etc.

- Review and Edit: Review the drawing for accuracy and make any necessary edits or adjustments to ensure that everything is correctly represented. Check dimensions, alignments, and overall layout.

- Save and Print: Save your drawing file in an appropriate location and consider printing it out for reference or sharing it digitally with others involved in the project.

- Remember to refer to any architectural plans or specifications you have for the house to ensure that your AutoCAD drawing accurately reflects the design requirements. Additionally, follow any relevant building codes and regulations when creating your house plan.

UNIT-III DETAIL DRAWING

Certainly! When creating a detailed drawing for furniture, you want to ensure that it accurately represents the dimensions, features, and assembly instructions of the piece. Here's a basic outline of what you might include:

1. Title Block:

2. Orthographic Views:

3. Dimensions:

4. Materials and Construction Details:
5. Assembly Instructions:
6. Finish and Texture:
7. Notes and Annotations:
8. Scale Reference:
9. Rendering (Optional):

Remember to maintain clarity and consistency throughout the drawing to ensure that it effectively communicates the necessary information to whoever will be using it, whether it's for manufacturing, assembly, or other purposes.

UNIT-IV ELECTRICAL PLANING:

Creating an electrical layout in AutoCAD involves several steps to ensure accuracy and clarity. Here's a basic guide on how to do it:

1. Set up the Drawing Environment:
2. Insert Reference Information:
3. Draw Walls and Structural Elements:
4. Place Electrical Devices:
5. Draw Wiring and Conduits:
6. Label and Annotate:
7. Add Dimensioning and Notes:
8. Check and Review:
9. Save and Share:

Remember to follow standard drafting practices and guidelines for creating clear and accurate drawings. It's also a good idea to consult with electrical engineers or professionals to ensure your layout meets all safety and functional requirements.

UNIT-V TILE COUNT LAYOUT:

Creating a tile count layout in AutoCAD involves several steps. Here's a general guide

- Set Up Your Drawing
- Draw the Area to Be Tiled
- Create Tile Blocks (Optional
- Counting Tiles
- Labeling and Annotation

- Dimensioning (Optional)
- Save and Print

Remember to customize the above steps based on your specific project requirements and preferences. AutoCAD offers a wide range of tools and customization options to help you create detailed and accurate drawings for your tile layout.

SKETCHUP

UNIT-I BASIC TOOLS OF SKETCHUP

SketchUp offers a range of basic tools that form the foundation of creating 3D models. Here are some of the essential ones:

- Line Tool
- Rectangle Tool
- Circle Tool

These are some of the fundamental tools in SketchUp that you'll frequently use when creating 3D models. They provide a solid starting point for modeling and can be combined and used in various ways to construct more complex geometry.

UNIT-II –WALL RAISING

Raising walls in SketchUp is a straightforward process, typically done using the Push/Pull tool to extrude a 2D shape into a 3D form. Here's a step-by-step guide:

- Draw the Floor Plan
- Create Wall Thickness
- Extrude Walls Upward
- Repeat for Each Wall
- Cleanup and Detailing
- Group or Component

By following these steps, you can effectively raise walls in SketchUp to create the basic structure of your building or architectural model. As you become more familiar with SketchUp's tools and features, you can explore more advanced techniques for detailing and refining your models.

UNIT-III BASIC MODELING

Basic modeling in SketchUp involves creating simple 3D shapes and forms using fundamental tools. Here's a step-by-step guide to get you started:

Set Up Your Workspace

- Navigate the Interface
- Select a Drawing Tool:

- Draw a Shape
- Edit and Modify
- Extrude Shapes
- Combine and Group Objects
- Add Details
- Review and Refine
- Save Your Work

By following these steps, you can create basic 3D models in SketchUp and begin to explore its capabilities for more advanced modeling and design projects.

UNIT-IV MODELING AND COLORS

How to model larger models like bed headboard, back bed wall, tv wall, wardrobe, Ceiling, curtain units, artifact set by using some other plugin tools like Soap bubble, open &close etc.

How to apply basic colour for walls, furniture etc.

UNIT-V TILE COUNT

To count the number of tiles in a model in SketchUp, you can use a combination of manual methods and plugins. Here's how you can approach it:

Manual Method:

- Wall Raising
- Zoom In
- Selection Tool
- Counting
- Repeat

This manual method can be time-consuming and may not be feasible for large or complex tile layouts.

VRAY

UNIT -I INTRODUCTION TO VRAY

- V-Ray for SketchUp is a powerful rendering software plugin that seamlessly integrates with SketchUp, a popular 3D modeling program. Developed by Chaos Group, V-Ray enhances SketchUp's capabilities by providing advanced rendering tools, allowing users to create photorealistic imagery of their 3D models with ease.

- One of the key features of V-Ray for SketchUp is its ability to simulate real-world lighting conditions and materials accurately. Users can manipulate various parameters such as light intensity, color, and direction to achieve the desired look and feel for their renders. Additionally, V-Ray offers a wide range of material presets and textures, enabling users to create surfaces that mimic a variety of materials like wood, glass, metal, and more.

- Another notable aspect of V-Ray for SketchUp is its efficient rendering engine, which leverages both CPU and GPU processing power to deliver fast and high-quality results. This allows users to iterate quickly on their designs and see near-instant feedback on changes made to the scene.

- Furthermore, V-Ray for SketchUp offers a user-friendly interface with intuitive controls and presets, making it accessible to both beginners and experienced users alike. Its seamless integration with SketchUp's workflow streamlines the rendering process, allowing users to focus more on the creative aspects of their projects rather than getting bogged down by technical details.

- Overall, V-Ray for SketchUp is a versatile rendering solution that empowers designers, architects, and visual artists to bring their ideas to life with stunning realism and detail. Whether creating architectural visualizations, product designs, or interior scenes, V-Ray for SketchUp provides the tools necessary to achieve professional-quality renders.

UNIT-II BASIC TOOLS OF VRAY SKETCHUP

V- Ray for SketchUp offers a comprehensive set of tools and features to help users create realistic renders of their 3D models. Here are some of the basic tools and functionalities you can expect to find in V-Ray for SketchUp:

- V-Ray Asset Editor
- Material Editor
- V-Ray Lights
- Global Illumination
- Image Sampler
- Render Elements
- Camera Settings
- V-Ray Frame Buffer

These are just a few of the basic tools and features of V-Ray for SketchUp. The software offers a wide range of additional capabilities for advanced rendering and visualization needs.

UNIT-III–MATERIAL APPLICATION

In V-Ray for SketchUp, applying materials to your 3D models is a crucial step in achieving realistic and visually appealing renders. Here's a basic overview of how you can apply materials using V-Ray for SketchUp:

1. Material Editor:

2. Applying Materials:

3. Adjusting Material Properties:

4. Mapping and Texturing:

5. Material Overrides:

6. Material Libraries:

By mastering the material application process in V-Ray for SketchUp, you can enhance the realism and quality of your renders, bringing your 3D models to life with convincing textures and surface properties.

UNIT-IV RENDERING SETTINGS

Configuring render settings in V-Ray for SketchUp is essential for achieving high-quality renders while balancing rendering time and output quality. Here's an overview of the key render settings you can adjust:

1. Quality Settings:

   - Image Sampler
   - Antialiasing
   - Noise Threshold

2. Global Illumination:

   - GI Engine
   - Primary and Secondary Bounces

3. Lighting:

   - V-Ray Lights
   - Environment Lighting

4. Materials:

   - Reflection and Refraction
   - Subdivision and Displacement

5. Camera Settings:

   - Exposure:
   - Depth of Field

6. Render Elements:

   - Enable/Disable
   - Render Element Parameters

7. Output Settings:

   - Image Size and Aspect Ratio
   - File Format
   - Output Location

8. Post-Processing:

- Color Correction
- Tone Mapping

By adjusting these render settings according to your specific project requirements, you can achieve optimal results with V-Ray for SketchUp, balancing rendering speed with output quality to produce stunning, photorealistic renders.

LUMION

UNIT -I INTRODUCTION TO LUMION

Lumion is a powerful visualization software designed to complement SketchUp's 3D modeling capabilities by providing intuitive tools for creating stunning architectural renders and animations. With its user-friendly interface and real-time rendering technology, Lumion allows architects, designers, and artists to bring their SketchUp models to life with remarkable ease and speed.

Key features of Lumion for SketchUp include:

•Real-Time Rendering: Lumion offers real-time rendering capabilities, allowing users to instantly visualize their SketchUp models with realistic lighting, materials, and environments. This immediate feedback enables quick design iterations and enhances the creative workflow.

•Vast Content Library: Lumion provides a vast library of high-quality 3D models, materials, textures, and objects that users can easily integrate into their SketchUp projects. This extensive content library includes vegetation, furniture, people, vehicles, and more, enabling users to populate their scenes with lifelike elements effortlessly.

•Advanced Lighting and Effects: With Lumion, users can simulate various lighting conditions, such as sunlight, artificial lights, and global illumination effects, to create compelling atmospheres and moods. Additionally, Lumion offers a range of effects such as lens flare, depth of field, and bloom to enhance the visual impact of renders and animations.

•Effortless Scene Setup: Lumion simplifies the process of scene setup by providing intuitive tools for terrain modeling, landscaping, and scene composition. Users can quickly add terrain features, water bodies, vegetation, and other landscape elements to enrich their SketchUp models with natural environments.

•Animation and Visualization: Beyond static renders, Lumion allows users to create immersive animations and walkthroughs of their SketchUp models, enabling clients and stakeholders to experience designs in motion. Users can animate cameras, objects, and environments, adding movement and narrative to their presentations.

•Integration with SketchUp: Lumion seamlessly integrates with SketchUp, enabling users to import SketchUp models directly into Lumion for visualization

and rendering. Changes made to the SketchUp model can be synchronized with Lumion, facilitating a smooth workflow between the two platforms.

Overall, Lumion for SketchUp empowers designers to communicate their ideas effectively, turning SketchUp models into compelling visualizations and animations that captivate audiences and streamline the design process from concept to presentation.

UNIT-II MATERIAL APPLICTION

In Lumion, applying materials to your 3D models is a fundamental aspect of creating realistic and visually appealing renders and animations. Here's an overview of how you can apply materials in Lumion:

1. Material Library
2. Material Assignment
3. Material Customization
4. Texture Mapping
5. Material Layers
6. Global Materials
7. Material Variation

UNIT-III –LIGHT APPLICATION

In Lumion, lighting plays a crucial role in creating realistic and visually appealing architectural visualizations. Here’s a brief guide on how to apply and manage lighting in Lumion:

1. Placing Lights
2. Adjusting Light Properties
3. Sun and Sky
4. Global Illumination
5. Lighting Effects
6. Lighting Presets
7. Real-Time Feedback
8. Rendering Considerations

By mastering these aspects of lighting in Lumion, you can create compelling architectural visualizations that effectively communicate your design intent.

Experimentation and practice will help you refine your skills and achieve stunning results.

UNIT-IV –LANDSCAPING AND OTHER OBJECTS

In Lumion, landscaping and adding other objects such as vegetation, people, vehicles, and furniture are essential for creating immersive and lifelike environments. Here's how you can incorporate landscaping and other objects in your Lumion projects:

1.Terrain Editing:

2.Vegetation:

3.Other Objects:

4.Custom Models:

5.Object Placement and Arrangement:

6.Object Properties:

UNIT-V RENDERING SETTINGS

Configuring render settings in Lumion is crucial for achieving high-quality renders while balancing rendering time and output quality. Here's an overview of the key render settings you can adjust:

1. Render Quality:
   - •Render Presets
   - •Render Style
2. Lighting:
   - •Sun and Sky
   - •Artificial Lights
3. Reflections and Refractions:
   - •Reflection Quality
   - •Refraction Quality
4. Shadow Settings:
   - •Shadow Quality
   - •Shadow Range
5. Ambient Occlusion:

•Ambient Occlusion

6. Global Illumination:

•GI Quality

7. Post-Processing:

•Color Correction

•Depth of Field

8. Output Settings:

•Resolution

•File Format

UNIT-VI WALKTHROUGH

Certainly! Here's a step-by-step walkthrough on how to create a basic architectural visualization using Lumion:

Step 1: Importing Your Model

1. Prepare Your 3D Model
2. Import Your Model into Lumion
3. Position and Scale

Step 2: Setting Up the Scene

1. Terrain and Environment
2. Adding Objects and Elements

Step 3: Applying Materials and Textures

1. Material Application
2. Adjusting Material Settings

Step 4: Lighting Your Scene

1. Placing Lights
2. Using Natural Lighting

Step 5: Adding Effects and Atmosphere

1. Post-Processing Effects
2. Animating Elements (Optional)

Step 6: Fine-Tuning and Rendering

1. Preview and Adjust:
2. Render Your Scene:
3. Render Output:

Step 7: Presenting Your Visualization

1. Create Renders and Animations
2. Export and Share

By following these steps, you can effectively use Lumion to create compelling architectural visualizations that showcase your design in realistic and visually stunning ways.

COHOOM

Unit –I: Introduction to Cohoom

- Cohoom represents a groundbreaking approach to virtual collaboration, redefining how professionals across various industries interact, design, and innovate together. As an innovative platform, Cohoom aims to streamline and enhance collaboration processes, particularly in fields such as architecture, interior design, real estate, and construction.

- At its core, Cohoom empowers teams to transcend geographical boundaries and time constraints, enabling seamless communication and cooperation irrespective of physical location. Through its intuitive interface and robust feature set, Cohoom facilitates real-time collaboration, allowing stakeholders to work together synchronously on design projects, brainstorm ideas, and provide feedback instantaneously.

- One of Cohoom's key strengths lies in its immersive virtual environments, which provide a dynamic canvas for ideation and exploration. Whether architects are conceptualizing a new building, interior designers are refining spatial layouts, or real estate professionals are showcasing properties, Cohoom offers a versatile platform for visualizing ideas with unprecedented clarity and realism.

- Moreover, Cohoom fosters a culture of inclusivity and accessibility, ensuring that every team member's voice is heard and valued throughout the design process. From client presentations to internal design reviews, Cohoom facilitates meaningful engagement and collaboration at every stage, resulting in more informed decisions and superior outcomes.

- In addition to its collaborative features, Cohoom boasts robust tools for design visualization, project management, and data analytics, empowering teams to streamline workflows, track progress, and measure performance effectively. By harnessing the power of data-driven insights, Cohoom enables continuous

improvement and innovation, driving success in an ever-evolving digital landscape.

- As organizations embrace remote work and virtual collaboration as the new norm, Cohoom emerges as a transformative solution for harnessing collective creativity, expertise, and vision. With its visionary approach to collaboration and design, Cohoom sets the stage for a future where innovation knows no bounds and possibilities are limitless.

UNIT –II BASIC TOOLS:

Coohom is a cloud-based interior design software that provides tools specifically tailored for creating and visualizing interior spaces. Here are some of the basic tools and features you can expect to find in Coohom:

1. Room Layout and Design:
   - •Floor Plan Creation
   - •Walls and Partitions
   - •Furniture Placement
2. Customization and Editing:
   - •Material and Texture Selection
   - •Color Customization
3. Visualization and Rendering:
   - •3D Visualization
   - •Real-Time Rendering
4. Collaboration and Sharing:
   - •Collaborative Design
   - •Project Sharing
5. Measurement and Scale:
   - Measurement Tools
6. Virtual Reality (VR) Integration
   - VR Experience
7. Presentation and Documentation:
   - Rendering Export
   - Design Documentation

8. User Interface and Ease of Use:

- Intuitive Interface
- Tutorial and Support

Coohom aims to streamline the interior design process by providing tools that cater specifically to creating and visualizing interior spaces, making it a valuable tool for professionals and enthusiasts alike.

UNIT-III : WALL CREATION:

Building Tools:

- Cohoom may provide players with building tools or interfaces specifically designed for constructing walls and structures.
- These tools typically allow players to place and manipulate various building materials, such as wood, stone, brick, or metal, to create walls of different shapes, sizes, and styles.

Materials:

- Players can choose from a variety of materials to construct their walls, each with its own aesthetic and functional properties.
- Common materials for building walls may include wood planks, stone blocks, reinforced concrete, or decorative panels.
- Players may gather or purchase these materials through in-game activities such as crafting, trading, or questing.

Design and Layout:

- Before constructing walls, players should plan out the design and layout of their desired structure.
- Consider factors such as the overall size and shape of the building, the placement of doors and windows, and any additional features such as decorative elements or architectural details.
- Use in-game building tools to sketch out the layout and dimensions of the walls, adjusting as needed to achieve the desired design.

Placement and Construction:

- Once the design is finalized, players can begin placing and constructing the walls using their chosen building materials.
- Walls can be placed horizontally or vertically to create partitions, enclosures, or perimeter barriers.

- Players may use a combination of straight walls, curved walls, corners, and intersections to create custom shapes and configurations.

- Pay attention to alignment, spacing, and symmetry to ensure a cohesive and visually pleasing result.

Customization and Decoration:

- After constructing the basic walls, players can further customize and decorate them to enhance their appearance and functionality.

- Add details such as windows, doors, archways, or decorative trim to add visual interest and architectural flair.

- Incorporate lighting fixtures, banners, tapestries, or other decorative elements to personalize the walls and reflect the player's style or theme.

UNIT –IV MATERIAL APPLICATION:

In Coohom, applying materials is an essential part of creating realistic and visually appealing interior designs. Here's a guide on how to apply materials to surfaces within your design:

Steps to Apply Materials in Coohom:

1. Accessing the Material Library
2. Choosing Materials
3. Applying Materials
4. Customizing Material Properties
5. Applying Textures
6. Saving Custom Materials (if applicable)
7. Previewing in 3D
8. Exporting and Sharing

Tips for Effective Material Application:

- Consistency: Maintain consistency in material choices throughout the design to create a cohesive look.

- Realism: Pay attention to details such as texture resolution and lighting conditions to achieve a realistic appearance.

- Experimentation: Don't hesitate to experiment with different materials and textures to explore various design possibilities.

- Feedback: Seek feedback from clients or peers to ensure that the chosen materials align with the design vision and client expectations.

By following these steps and tips, you can effectively use Coohom's material application features to enhance your interior design projects and create visually stunning presentations.

UNIT –V LIGHT SETTING:

- Light Type
- Intensity
- Colo
- Shadow Settings
- Falloff:
- Light Distribution

UNIT-VI RENDER SETTINGS:

- Preparation
- Quality Settings
- Resolution
- Render Output Format
- Render Settings
- Render Queue
- Render Farm
- Preview Renders

UNIT-VII PANAROMA:

Creating panoramas in Coohom allows you to capture and share immersive 360-degree views of your interior designs. This feature is particularly useful for presenting your designs in a more interactive and engaging way. Here's how you can create panoramas in Coohom:

Steps to Create Panoramas in Coohom:

1. Prepare Your Design
2. Navigate to the Panorama Tool:
3. Position and Capture the Panorama:
4. Set Panorama Settings:
5. Generate the Panorama:
6. Review and Preview:
7. Export or Share the Panorama:
8. Presenting and Sharing:

Tips for Creating Panoramas in Coohom:

•Camera Positioning: Pay attention to the camera placement to capture the most visually appealing angles of your design.

•Lighting and Ambiance: Ensure lighting and ambiance settings are optimized for the panorama to showcase your design effectively.

•Interactivity: If Coohom supports interactive panoramas, consider enabling features like hotspots to provide additional information or navigation within the panorama.

•Feedback: Share the panorama with clients or stakeholders to gather feedback and make necessary adjustments to your design.

By following these steps and tips, you can leverage Coohom's panorama feature to create captivating and immersive presentations of your interior design projects.

UNIT-VIII 720VR:

1. 720-degree VR Experience: This could imply an immersive experience where the user can view their surroundings in a full 720-degree field of vision. This would be more than the typical 360-degree VR experience, potentially allowing for an even more immersive environment.

2. 720p Resolution VR: Another interpretation could be related to the resolution of VR content. "720 VR" might refer to VR content or displays that support a resolution of 720p (1280x720 pixels).

UNIT-IX LIBRARY

Creating a public library in a virtual platform like Coohoom involves leveraging digital tools to replicate the experience and services typically found in physical libraries. Here's how you might approach it:

1. Virtual Space Design:

- **L**ayout: Design a virtual space with multiple areas such as reading rooms, study corners, children's section, and event spaces.
- Navigation: Ensure intuitive navigation to allow users to explore different sections easily.

2. Catalog and Resources:

- Book Collection: Digitize the library's collection, categorize books by genre, author, or topic, and create virtual shelves.
- Digital Resources: Include access to e-books, audiobooks, digital magazines, and academic journals.

3. Interactive Features:

- Search and Discovery: Implement a robust search function that allows users to find specific books or resources quickly.
- Virtual Tours: Offer virtual tours of the library, highlighting different sections and resources.
- Interactive Displays: Showcase new arrivals, featured books, and recommended reads.

4. Accessibility and User Experience:

- Accessibility Features: Ensure accessibility for users with disabilities, including options for text-to-speech and screen reader compatibility.
- User-Friendly Interface: Design an intuitive interface that is easy to navigate for users of all ages and technological backgrounds.

UNIT-X COUSTOME MODELING :

Creating new models by using feature like Costume model

USE CASE

1. Residence:Residence Buildings can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion,Vray,Cohoom

2. Office design:Office Buildings can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion,Vray,Cohoom

3. Farmhouse design :Farmhouse Buildings can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

4. Duplex House : Duelex House Designscan be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

5. University design :University Buildings can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

6. Exhibition hall design:Exibition Hall design can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

7. Meditation centre design : Meditation centre design can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

8. Cafe design:Café Buildings and Furnitures can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

9. Showroom design:Showroom Design can be modeled with help of softwares like Autocad,Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

10. Furniture designmodeling:Furniture Designs (Table,Chair,BedHeadboard,etc.)can be modeled with help of softwares like Sketchup, and Renderd with help of softwares like Lumion,Vray,Cohoom

11. Artifact design modeling:Artifacts Designs (Wall Decors,HomeDecors,etc.)can be modeled with help of softwares like Sketchup, and Renderd with help of softwares like Lumion,Vray,Cohoom

12. Light fixture modeling:Lights Designs (Hanging Light,Chandilier,etc.)can be modeled with help of softwares like Sketchup, and Renderd with help of softwares like Lumion ,Vray,Cohoom

13. Tile layout:Bathroom Design can be modeled with Tiles with help of softwares like Sketchup , and Renderd with help of softwares like Lumion ,Vray,Cohoom and Make Tile layout with help of software like Autocad

14. Electrical layout (RCP):Electrical drawings are drawn with help of softwares like Autocad

15. Electric looping (Wiring):Electrical looping drawings are drawn with help of softwares like Autocad

16. Detail drawing:In detail drawing we will give the proper dimensions dimensions for Furnitures like table, Bed headboard etc. Detail drawings are drawn with help of softwares like Autocad

17. Panaroma :Panaroma is a to create 3 dimensional view for a Whole room with help of some software like Cohoom

18. 720 vr:720 vr is a to create 3 dimensional view for a Whole House or a Office with help of some software like Cohoom

19. Walkthrough:Walkthrough is a to create 3 dimensional video for a Whole House or a Office with help of some software like Lumion

20. Elevation design lumion:Elevation Designs can be modeled with help of softwares like Sketchup, and Renderd with help of softwares like Lumion

Test Projects

1. AutoCAD :

- Test Case Title: Drawing Creation

- Preconditions: AutoCAD installed and running.

- Steps to Reproduce:

1. Open AutoCAD.

2. Create a new drawing.

3. Draw a rectangle with specified dimensions.

4. Add text with specific content.

5. Save the drawing.

- Expected Result: The rectangle and text are correctly drawn and saved in the specified file format.

2. SketchUp :

- Test Case Title: 3D Model Creation

- Preconditions: SketchUp installed and running.

- Steps to Reproduce:

1. Open SketchUp.

2. Create a new project.

3. Draw a simple 3D model, such as a house or a car.

4. Apply textures or colors to the model.

5. Save the project.

- Expected Result: The 3D model is accurately created with applied textures and colors, and it is saved without any errors.

3. V-Ray :

- Test Case Title: Rendering Quality

- Preconditions: V-Ray plugin installed and configured in the host application (e.g., SketchUp).

- Steps to Reproduce:

1. Open a project in the host application.

2. Apply V-Ray materials to objects in the scene.

3. Set up lighting and camera parameters.

4. Start the rendering process.

5. Inspect the rendered image for quality.

- Expected Result: The rendered image exhibits high-quality textures, lighting, and shadows without any artifacts or errors.

4. Lumion :

- Test Case Title: Real-Time Visualization

- Preconditions: Lumion installed and running.

- Steps to Reproduce:

1. Open Lumion.

2. Import a 3D model or scene.

3. Apply materials, effects, and landscaping elements.

4. Adjust lighting and camera settings.

5. Start real-time rendering.

- Expected Result: Real-time visualization of the scene with smooth navigation, realistic lighting, and high-quality textures.

4. Cohoom:

- Test Case Title: Real-Time Visualization

- Preconditions: Cohoom installed and running.

Steps to Reproduce:

1. Open Cohoom.

2. Import a 3D model or scene.

3. Apply materials, effects, and landscaping elements.

4. Adjust lighting and camera settings.

5. Start real-time rendering.

- Expected Result: Real-time visualization of the scene with smooth navigation, realistic lighting, and high-quality textures.