Course Description: Learn how to design and document structural elements like foundations, beams, columns, walls with Revit Structure through this Professional training course. Our Revit Structure training is perfect for you. It's made for people who want to become structural engineers, Steel Structure Designer, or professionals.

REVIT STRUCTURE

1. Introduction to Revit Structure

➢ Overview of Building Information Modeling (BIM)
➢ Introduction to the Revit interface and tools
➢ Understanding the project environment and workflow

2. Basic Structural Elements

➢ Modeling structural columns, beams, and braces
➢ Creating and modifying structural floors and roofs
➢ Designing foundations and retaining walls

3. Advanced Structural Elements

➢ Creating complex structural framing systems
➢ Working with trusses and composite structures
➢ Utilizing specialized families for rebar and connections

4. Rebar Modeling and Detailing

➢ Introduction to reinforcement modeling in Revit Structure
➢ Placing and modifying rebar elements in concrete structures
➢ Detailing rebar layouts and schedules

5. Rebar Constraints and Parameters

➢ Applying rebar constraints and parameters for accurate modeling
➢ Customizing rebar shape codes and schedules
➢ Utilizing formulas and shared parameters for rebar design

6. Rebar Annotations and Documentation

➢ Annotating rebar elements with dimensions and tags
➢ Generating rebar bending schedules and material takeoffs
➢ Creating detailed rebar shop drawings and annotations

7. Structural Connections

➢ Introduction to structural connections in Revit Structure
➢ Placing and modifying standard connection elements
➢ Creating custom connection families for specific design requirements

8. Customizing and Detailing Connections

➢ Modifying connection parameters and constraints
➢ Creating custom connection families with nested components
➢ Detailing connection designs and generating documentation

9. Analyzing and Optimizing Structures

➢ Utilizing analytical tools in Revit Structure for connections and rebar
➢ Conducting structural analysis and simulations on connected elements
➢ Optimizing connection designs based on analysis results

10. Introduction to Revit Families

➢ Understanding the concept of Revit families
➢ Exploring different family types and categories
➢ Creating and modifying system families and loadable families

11. Creating Loadable Families

➢ Creating loadable families for specific structural components
➢ Setting up family parameters and constraints
➢ Applying family types and variations

12. Advanced Family Creation Techniques

➢ Creating parametric families with nested components
➢ Adding custom parameters and formulas
➢ Enhancing family functionality with conditional statements and calculations

13. Collaboration and Coordination

➢ Coordinating connections and rebar designs with other disciplines
➢ Managing shared project data and workflows
➢ Utilizing collaboration tools in Revit Structure

14. Advanced Modeling Techniques

➢ Designing complex connections and reinforcement detailing
➢ Incorporating advanced rebar shapes and configurations
➢ Applying parametric families for rebar and connection elements

15. Construction Documentation

➢ Generating detailed construction drawings for rebar and connections
➢ Annotating and dimensioning rebar and connection elements
➢ Creating construction details and sections

16. Introduction to Revit Extensions and Add-ons

➢ Exploring additional tools and extensions for Revit Structure
➢ Incorporating third-party add-ons for specialized workflows
➢ Maximizing productivity with Revit plugins

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