# INTRODUCTION TO AUTOCAD

- ➢ What is CAD
- ➢ What is Designing
- ➢ What is Drafting
- ➢ What is the Advantages of CAD
- ➢ Starting AutoCAD
- ➢ AutoCAD Screen Components
- ➢ Drawing Area
- ➢ Command Window
- ➢ Navigation Bar
- ➢ Status Bar
- ➢ Working with Command
- ➢ Opening an Existing Drawing File
- ➢ Viewing Your Drawing
- ➢ Saving Your Work
- ➢ Quitting AutoCAD
- ➢ Creating and Managing Workspaces
- ➢ Creating a New Workspace
- ➢ Modifying the Workspace Settings
- ➢ Autodesk Exchange
- ➢ Home
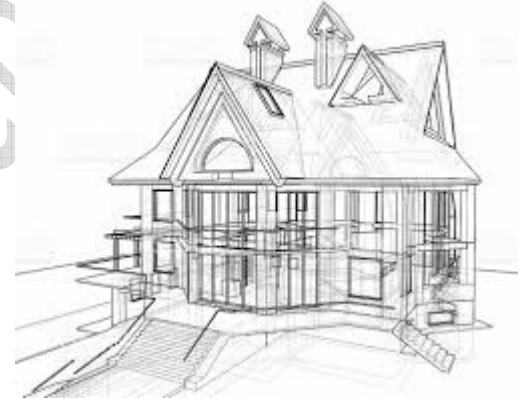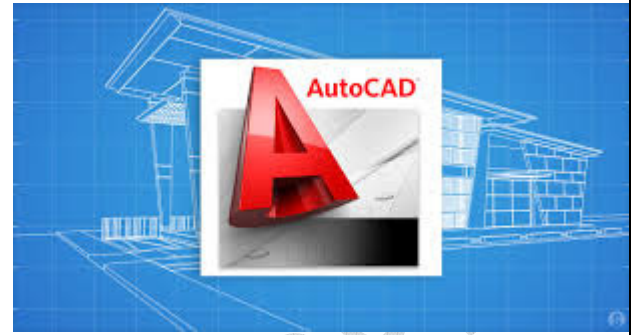
GETTING STARTED WITH AUTOCAD

- ➢ Setting Project UNITS
- ➢ Setting Dimension manager
- ➢ Setting Page Setup
- ➢ General Commands
- ➢ Drawing Lines
- ➢ Erasing Objects
- ➢ Drawing Lines with Polar Tracking
- ➢ Drawing Rectangles
- ➢ Drawing Circles
- ➢ Undo and Redo Actions
- ➢ Drawing Precision in AutoCAD
- ➢ Using Running Object Snaps
- ➢ Using Object Snap Overrides
- ➢ Polar Tracking at Angles
- ➢ Object Snap Tracking
- ➢ Stretching Objects
- ➢ Creating Fillets and Chamfers
- ➢ Offsetting Objects
- ➢ Creating Arrays of Objects
- ➢ Coordinate Systems
- ➢ Absolute Coordinate System
- ➢ Relative Rectangular Coordinate System
- ➢ Relative Polar Coordinates
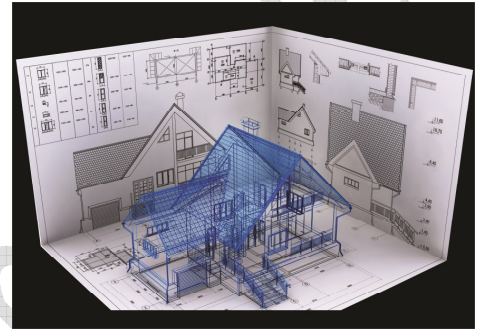
- ➢ Object Selection Methods
- ➢ Window Selection
- ➢ Window Crossing Method
- ➢ Basic Display Command

STARTING WITH ADVANCED SKETCHING

- ➢ Drawing Arcs
- ➢ Drawing Rectangles
- ➢ Drawing Ellipses
- ➢ Drawing Regular Polygon
- ➢ Drawing Polyline
- ➢ Placing Points
- ➢ Drawing Infinite Lines
- ➢ Writing a Single Line Text
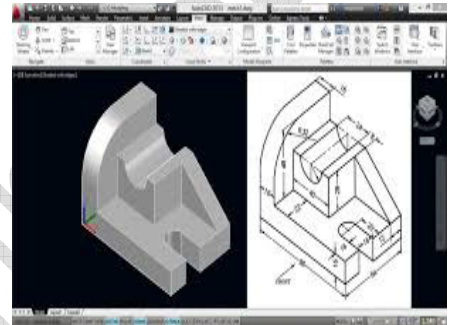
LAYER SETTINGS

- ➢ Introduction of Layer
- ➢ Understanding the Concept and Use of LAYERS
- ➢ Advantages of Using Layers
- ➢ Working With Layer
- ➢ Creating New Layers
- ➢ Making a Layer Current
- ➢ Controlling the Display of Layers
- ➢ Deleting Layers
- ➢ Object Properties
- ➢ Changing the Colour
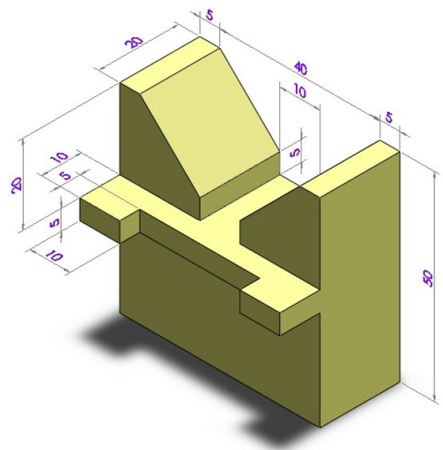
- ➢ Changing the Line type
- ➢ Changing the Line Weight
- ➢ Changing the Plot Style
- ➢ Drafting Settings dialog Box
- ➢ Setting Grid
- ➢ Setting Snap
- ➢ Snap Type
- ➢ Drawing Straight Lines using the Ortho Mode
- ➢ Working with Object Snaps
- ➢ Midpoint Between 2 Point
- ➢ Temporary Tracking Point
- ➢ Combining Object Snap Modes
- ➢ Function and Control Keys

MODIFY SKETCHED OBJECTS

- ➢ Editing Sketches
- ➢ Moving the Sketched Objects
- ➢ Copying the Sketched Objects
- ➢ Creating Multiple Copies
- ➢ Creating a Single Copy
- ➢ Offsetting Sketched Objects
- ➢ Rotating Sketching Objects
- ➢ Scaling the Sketching Objects
- ➢ Filleting the Sketches
- ➢ Chamfering the Sketches
- ➢ Trimming the Sketched Objects

- ➢ Extending the Sketched Objects
- ➢ Stretching the Sketched Objects
- ➢ Lengthening the Sketched Objects
- ➢ Arraying the Sketching Objects
- ➢ Rectangular Array
- ➢ Polar Array
- ➢ Path Array
- ➢ Mirroring the Sketched Objects
- ➢ Text Mirroring

VISUAL SETTINGS

- ➢ Basic Display Options
- ➢ Redrawing the Screen
- ➢ Regenerating Drawings
- ➢ Zooming Drawings
- ➢ Real-time Zooming
- ➢ All Option
- ➢ Center Option
- ➢ Extents Option
- ➢ Dynamic Option
- ➢ Previous Option
- ➢ Window option
- ➢ Scale option
- ➢ Object option
- ➢ Zoom in & Out
- ➢ Panning Drawing
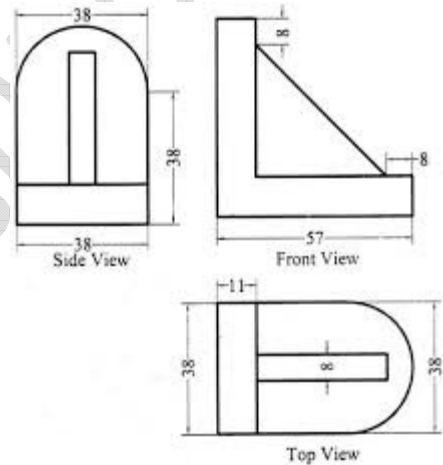
➢ Panning in Real time

ADDING TEXT
➢ Working with Annotations
➢ Adding Text in a Drawing
➢ Modifying Multiline Text
➢ Formatting Multiline Text
➢ Starting Table Area
➢ General Area
➢ Cell styles Area
➢ Setting a Table Style as current
➢ Modifying Table Style
➢ Substitute Fonts
➢ Specifying an Alternate Default Font
➢ Creating Text Style
➢ Determining Text Height
➢ Creating Annotative Text
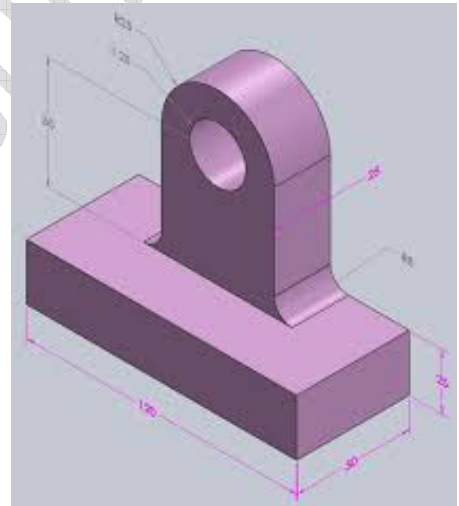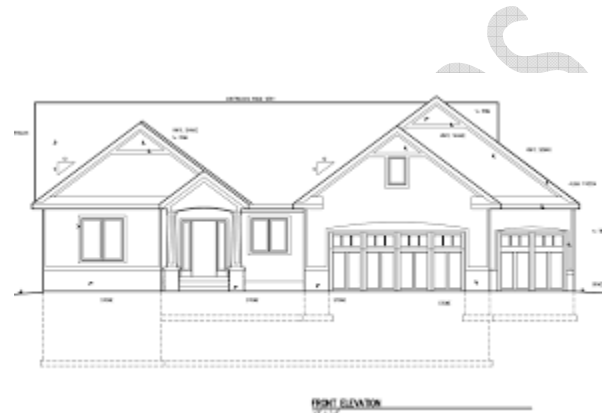
ADDING DIMENSSION
➢ Dimensioning Concept
➢ Adding Linear Dimension
➢ Adding Radial and Angular Dimensions

- ➢ Editing Dimensions
- ➢ Basic Dimensioning
- ➢ Geometric Dimensioning
- ➢ Creating Inspection Dimensions
- ➢ Inspection Label
- ➢ Dimension Value
- ➢ Editing Dimensions
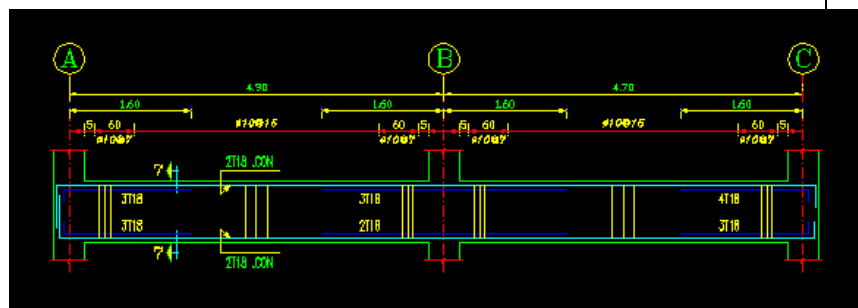- ➢ Dimension Styles
- ➢ Multi Leader Styles

LAYOUT & VIEWPORTS

- ➢ Printing Concepts
- ➢ Working in Layout

- ➢ Copying Layout
- ➢ Creating Viewports

- ➢ Guidelines for Layouts
- ➢ Model Space ViewPorts
- ➢ Paper Space Viewports
- ➢ Defining Page Settings
- ➢ Controlling the Display of Annotative Objects in Viewports
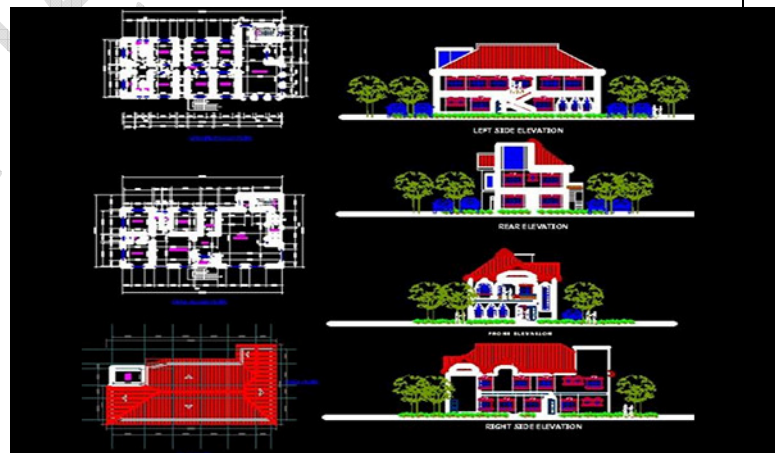
PLOTTING DRAWINGS

- ➢ Plotting Drawings in
  AutoCAD

- Page Setup Area
- Printer / Plotter Area
- Number of Copies Area
- Plot Area
- Plot Scale Area
- Plot Options Area
- Preview
- Adding Plotters
- The Plotter Manager Tools
- Using Plot Styles
- Adding a Plot Style
- Printing Your Drawing
- Printing Layout
- Printing from the Model Tab

HATCHING DRAWINGS

- Hatching
- Hatch Patterns
- Hatch Boundary
- Hatching Drawing Using the Hatch Tool
- Panels in the Hatch Creation Tab
- Boundaries Panel
- Pattern Panel
- Origin Panel
- Options Panel
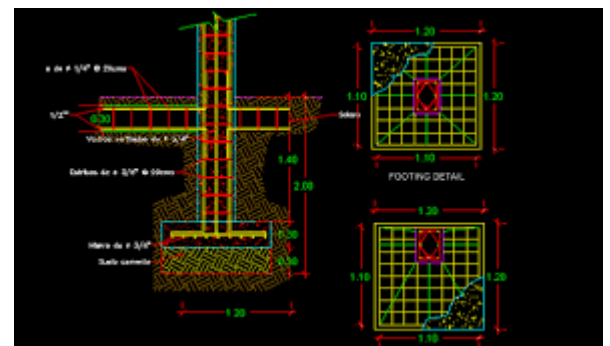
- ➢ Match Properties
- ➢ Setting the Parameters for Gradient pattern
- ➢ Creating Annotative Hatch
- ➢ Hatching the Drawing Using the Tools Palettes
- ➢ Drag and Drop Method
- ➢ Select and Place Method
- ➢ Hatching Around Text, Dimensions, and Attributes

WORKING WITH BLOCKS

- ➢ Inserting Blocks
- ➢ What are Blocks
- ➢ Inserting Blocks
- ➢ Inserting Dynamic Blocks
- ➢ Inserting Blocks With Design Center
- ➢ The Concept of Blocks
- ➢ Advantages of Using Blocks
- ➢ Drawing Objects for Blocks
- ➢ Converting Entities into a Block
- ➢ Block Editor
- ➢ Layers, Colours, Line Types, and Line Weights for Blocks
- ➢ Nesting Of Blocks
- ➢ Exploding Blocks using the XPLODE Command
- ➢ Renaming Blocks
- ➢ Deleting Unused Blocks
- ➢ Editing Constraints Blocks
- ➢ Editing Constraints Blocks
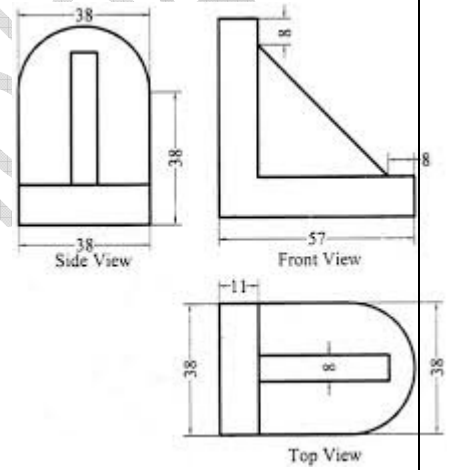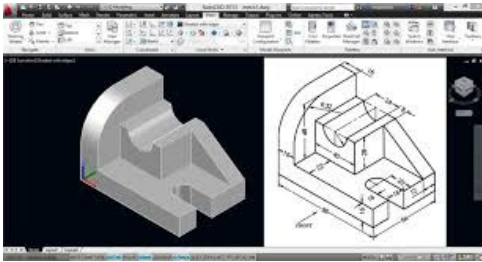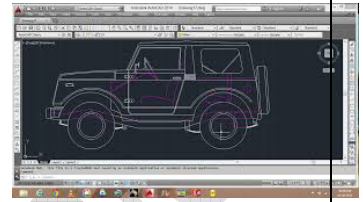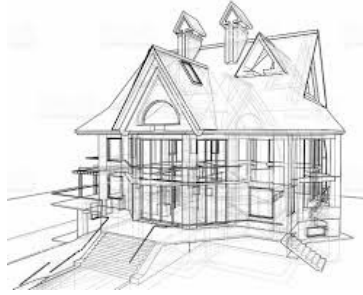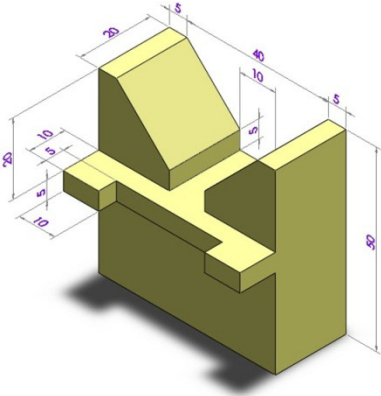
> Creating 2d Plans with standard Dimensions
> Creating Sections & Elevations

ISOMETRIC

> INTRODUCTION TO ISO METRIC
> SETTING WORKPLANE
> CREATING OBJECTS WITH EXAMPLES
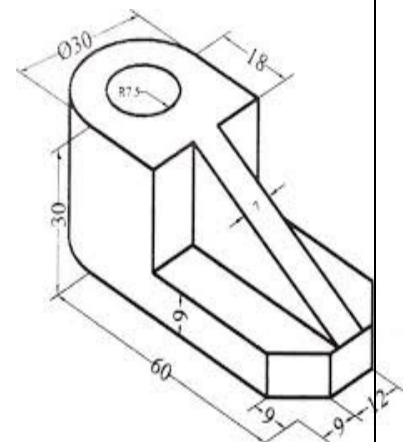
3D MODELLING

- ➢ INTRODUCTION TO 3D
- ➢ 3D SETTINGS
- ➢ METHODS
- ➢ BASIC SOLID COMMANDS
- ➢ 2D TO 3D CONVETION
  - EXTRUDE
  - LOFT
  - REVLOVE
  - SWEEP
  - PRESSPULL
  - POLYSOLID
  - REGION

- ➢ 3D MODIFY TOOLS
  - SUBSTRACT
  - UNION
  - INTERSCET
  - SLICE
  - THICKEN
- ➢ FACE OPTIONS
  - EXTRUDE FACE
  - ROTATE FACE
  - DELET FACE
  - COPY FACE
  - OFFSET FACE
  - COLOR FACE

- MOVE FACE
- ➢ SHELL
- ➢ 3D DOORS & WINDOWS CREATION
- ➢ 3D STAIRS
- ➢ 3D PLAN
- ➢ 3D WALK
- ➢ RENDER

- **Future gen training & course syllabus can make the student to challenge on the success of international interviews.**

ABOUT US

- o **Future Gen Technologies Training center is an engineering training institute providing trainings on job oriented professional courses for . Our training programs cover Civil Engineering, Mechanical Engineering, Electrical Engineering & IT Engineering.**

- o **The Aim of the Future Gen is to develop quality engineers by providing the real time practical knowledge.**

- o **Future Gen Training center has a team of highly experienced & qualified teaching staff. Many of them are experienced with real time projects. Our training mainly focus on instructors past experience and practical examples. This will help the trainees to have a better understanding of the concept.**

- o **Future gen technologies also comprise a placement cell and enjoy placement tie ups with many companies. Student gets the placement benefits after the completion of the course. Many of our students have been successfully placed with some reputed companies in India & other countries.**

WHY FUTURE GEN ?

- o **Future Gen provides the real time training on 100% job oriented courses on international projects & make every student to work on individual project in the training period.**

- o **Knowledge of Students who trained under Future Gen will be as good as experienced professionals.**

- o **Future gen provides digital training by In-depth demonstration on every aspect of course topics.**

- **Future Gen provides the complete support after completion of your course**

- **We provide excellent quality of infrastructure to our students**

- **Future gen provides the special training classes on personality development and interview skills after completion of course with 100% placement assistance.**

- **Highly qualified faculty with industry experience**

- **Training will be provided based on 20% theory and 80% practical concept**

- **Get fee Refund if not satisfied**

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Thank & Regards,

FUTURE GEN TECHNOLOGIES,

AMEERPET,KPHB HYDERABAD