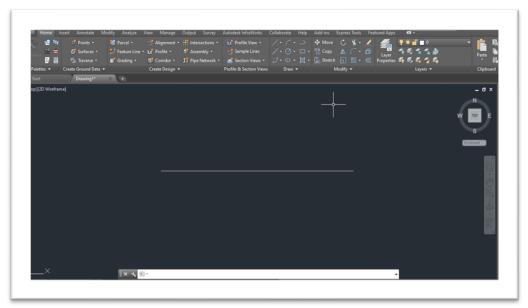
# **Engineering Drawing and Graphics**

## LAB # 1: Basic Commands of AutoCAD

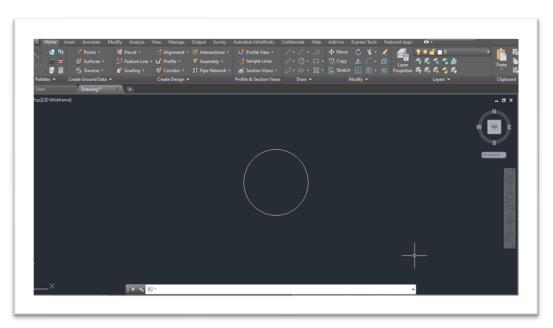
#### 1. Line Command:

To use line command we will click **L** and press **Enter**. After it we will specify the first and second point and again press **Enter** 



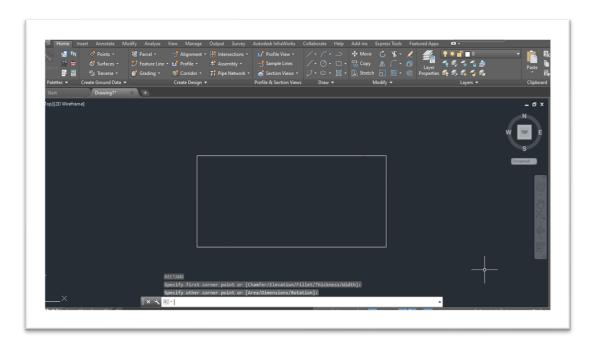
#### 2. Circle Command:

To use circle command click **C** and press **Enter**. After it specify center point and specify radius then again press **Enter** to draw a circle.



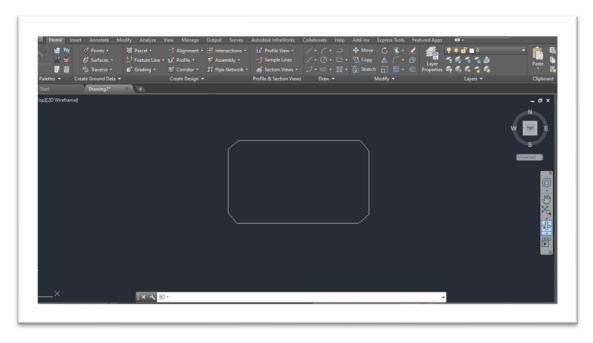
## 3. Rectangle Command:

To use Rectangle Command, write **rec** and press **Enter**. After it Select first corner and then second corner point and press **Enter** to draw a rectangle.



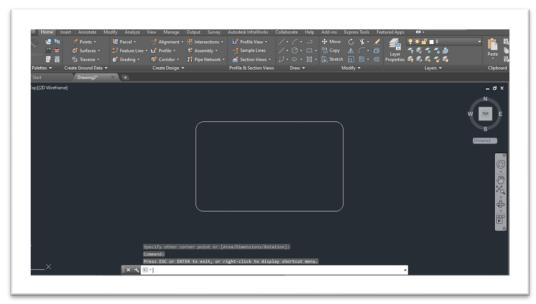
# (a) Chamfer Command:

This command chamfers the edges of two 2D objects.



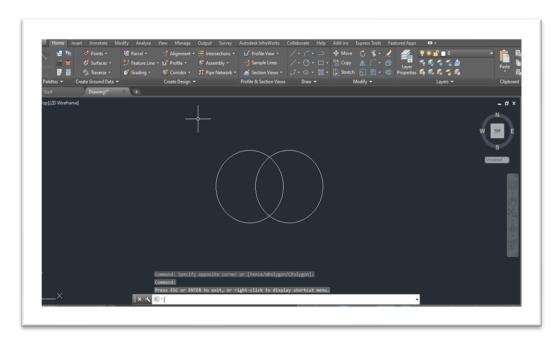
## (b) Fillet Radius:

This command is used to round the edges of 2D objects.

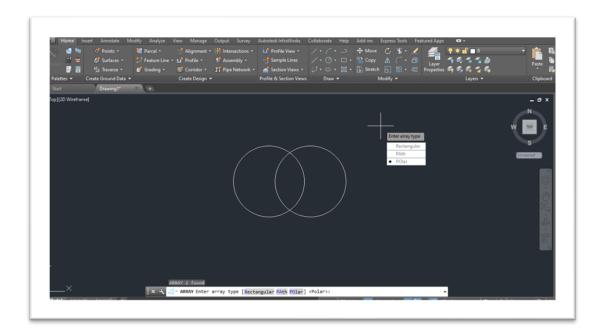


## 4. Array Command:

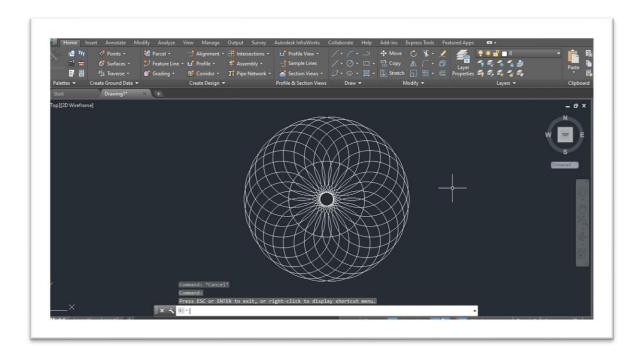
• To use array command draw any shape (overlapped circles)



Now select the Shape and Write AR, press Enter. Then we will choose Array type such as Polar

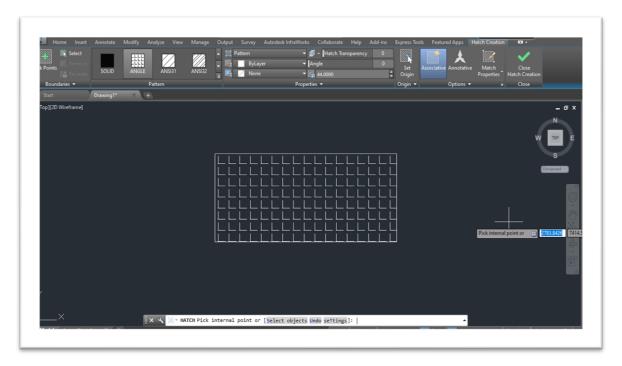


• Click polar and move the pointer to the geometric centre of the shape and Left Click on it, then the shape will repeated according to number of items.



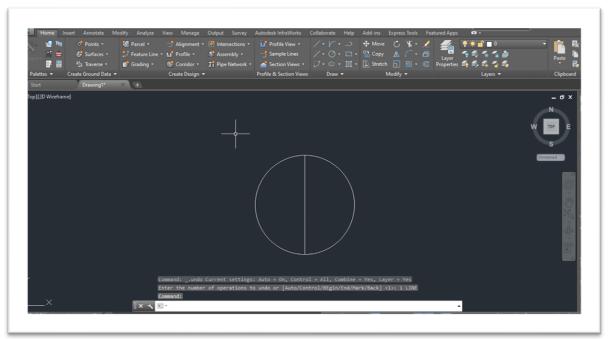
#### 5. Hatch Command:

To use hatch command, click  $\boldsymbol{H}$  and press  $\boldsymbol{Enter}$ . After it choose any hatch pattern and left click inside the figure that you have made.



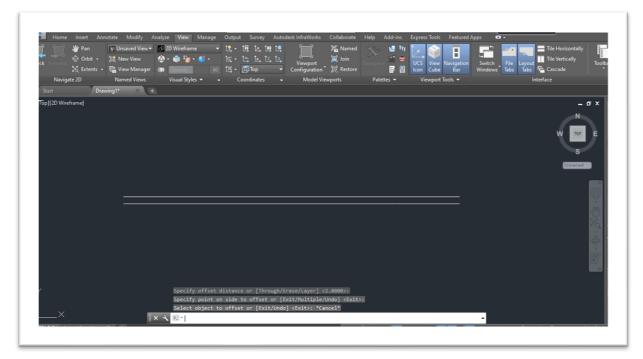
### 6. Mirror Command:

To Use mirror draw any figure, click it and type **(MI+Enter)**. Then move pointer to the object and click on it.



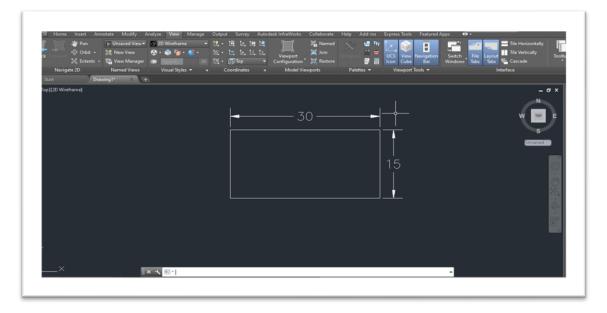
#### 7. Offset Command:

To use offset command Select the object ,click O and press Enter. Now specify Offset distance to draw a line w.r.t given line /object .



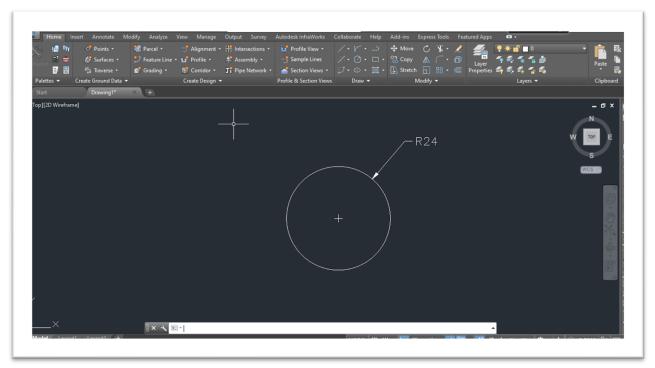
## 8. Dimaligned Command:

This command is used to measure the linear dimension with horizontal, vertical lines. To use it write **dimaligned** and press **Enter.** Then specify first and second extension line origin.



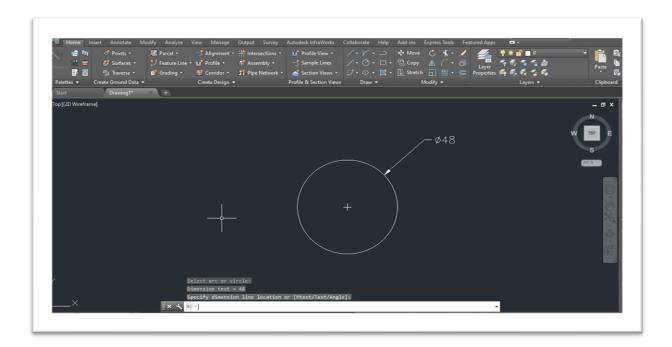
### 9. Dimradius Command:

This command is used to measure the radius of circle using **(dimrad+enter)** and select the object(circle).



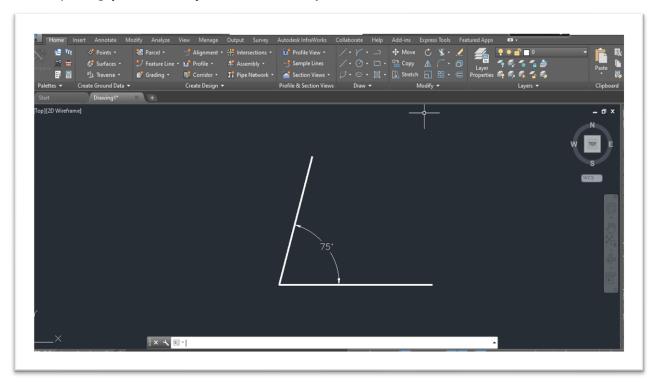
### 10. Dimdiameter Command:

This command is used to measure the diameter of circle using (dimdia+enter) and select the object.



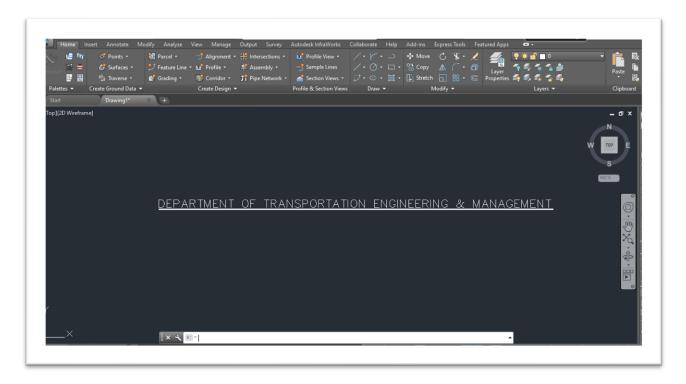
### 11. Dimangular Command:

This command is used to measure angle between two lines meeting at a single point by using **(dan+enter)** and select both of them.



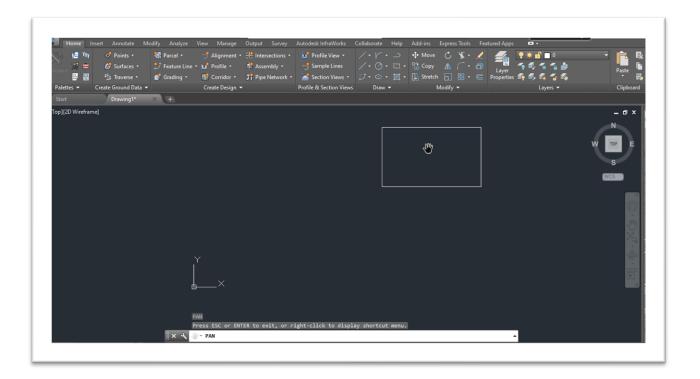
#### 12. Text Command:

This command is used to write a single line text using (Text+enter).



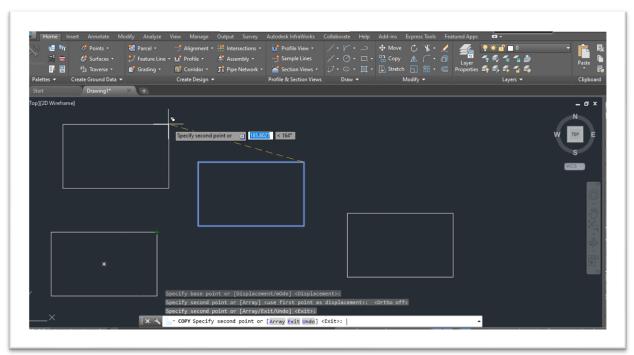
#### 13. Pan Command:

This command is used to shift the view without changing its direction or magnification.



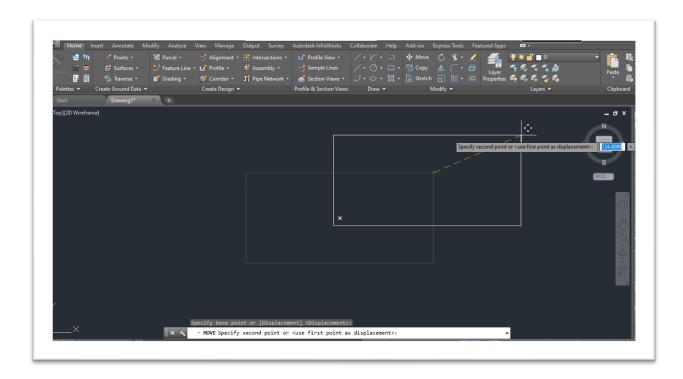
## 14.Copy Command:

This command is used to copy objects



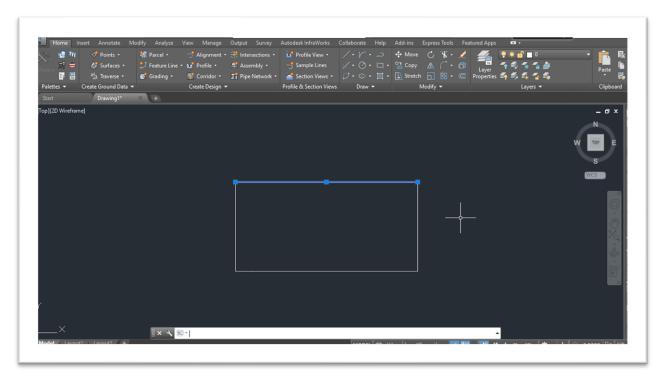
### 15. Move Command:

This command is used to move objects at a specific distance.



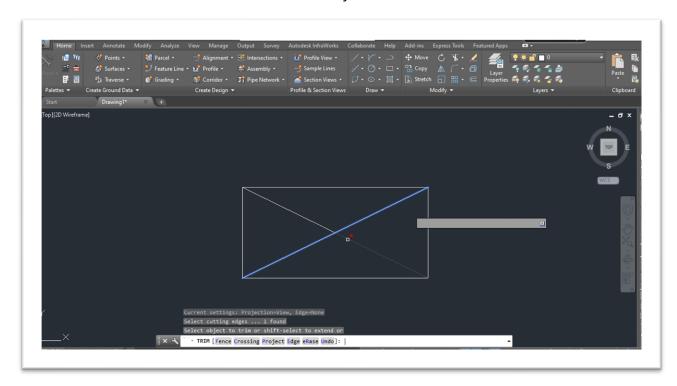
## 16.Explode Command:

This command is used to Breaks a compound objects into its component objects.



#### 17.Trim Command:

This command is used to remove a short or full line.



## 18. Rotate Command:

This command is used to rotate an object w.r.t specific point.

