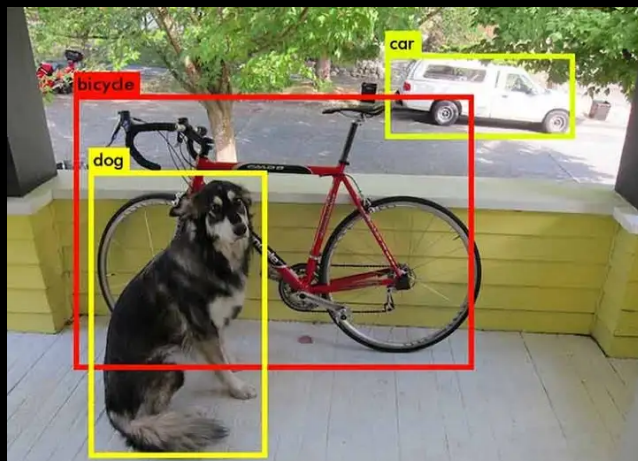A bounding box is a rectangular region in an image that encloses an object detected by an object detection model. It helps in locating and identifying objects in an image by providing their spatial coordinates.

Agenda
1. Representations
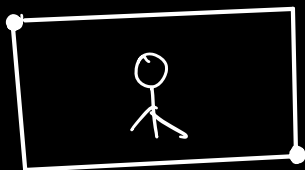2. Corner Format
3. Center Format

Corner Format

$$X_{min}, \ X_{max}, \ Y_{min}, \ Y_{max}$$

X_{min}, Y_{min} :- Top left Corner

X_{max}, Y_{max} :- Bottom Right Corner

Ex :- $(\overset{X_{min}}{50}, \overset{Y_{min}}{30}, \overset{X_{max}}{200}, \overset{Y_{max}}{180})$

Top left :- $(50, 30)$

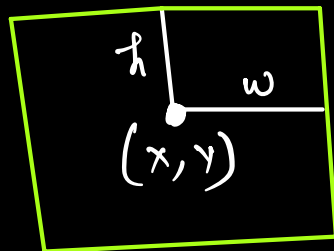Bottom Right :- $(200, 180)$

Center Format

X_{centre} , Y_{centre} , width, height

X centre :- X co-ord of centre

Y centre :- Y co-ord of centre

Width :- Width of Bbox

Height :- Height of Bbox

Ex:- $(125, 105, 150, 150)$

Centre Point :- $(125, 105)$

Width Height :- $(150, 150)$

Different Types of Object Detection Algo

1) Lenture :- Majorly Used

2) Commee :- Previously Used