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9.	30.09.2025	Building a RNN using LSTM	30/9 write neatly
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10.	17.10.2025	perform compression using MNIST dataset using auto encoders	
11.	17.10.2025	Experiment using Variations (VAE)	
12	27.10.2025	Implement a Deep convolutional GAN to generate color Images	egf
13	27.10.2025	Understanding the Architecture of a pre-trained model	
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15	27.10.2025	Implement a YOLO model object detection	egf

27.10.2025

15. Implement a YOLO model
for object Detection.

Aim

To implement and test a
YOLO object detection model to
locate and classify objects in images

Objectives:

1. To understand real-time
object detection
2. To perform bounding box
regression and classification
3. To evaluate detection speed
and accuracy.

pseudocode

* Start

* Load Yolo mode weights

and configuration

* Load input image or video

* preprocess image (resize,
normalize)

* perform forward pass to
obtain bounding boxes and

class probabilities

* Apply non-max suppression
to remove duplicate boxes

* Draw bounding boxes and
labels on images

* Display output

* End

Observation

1. YOLO provided fast real-time detection with good accuracy.
2. Larger objects were detected more reliably than very small objects
3. Bounding box overlap was reduced using non-max-suppression

Result:

~~89.8~~ → YOLO model successfully detected and localised objects in images, demonstrating high-speed object recognition capability.

Output :

Detected : person (confidence: 0.9)

Detected : Dog (Confidence : 0.9)

Detected : Bicycle (Confidence: 0.87)

Green → person

dog → blue

Red → bicycle

