

# Exercise: Object Detection

- (a) State clearly whether the following object detectors are one-stage detector or two-stage detector: (i) R-CNN and (ii) YOLOv7. Which of the two object detectors above is a more suitable choice if speed is the key consideration in an object detection application? Briefly justify your answer.

(7 Marks)

明确下列目标探测器是一级探测器还是二级探测器：(i) R-CNN和(ii) YOLOv7。  
如果在对象检测应用程序中速度是关键考虑因素，那么上述两种对象检测器中哪一种是更合适的选择？  
简单地证明你的答案。

# Solution

(a)

RCNN: Two-stage detector

YOLO V7: One-stage detector.

YOLO V7 is a more suitable choice as it is a more recent one-stage object detection algorithm. One-stage detector is generally faster than two-stage detector such as RCNN.