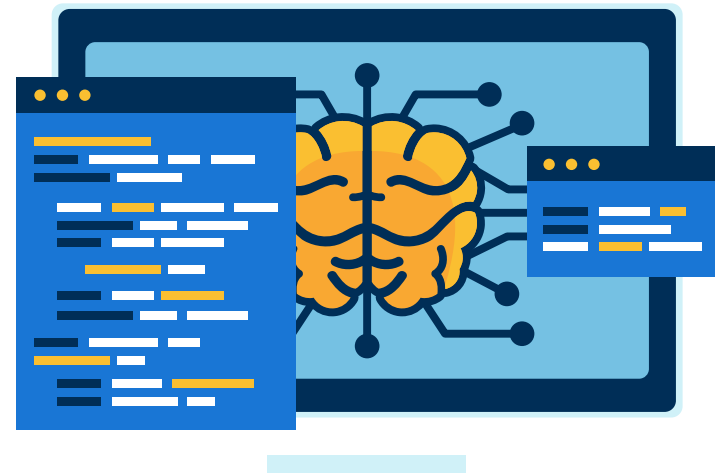Tweaks:
Changes the hyps
      a. Mosaic Size
      b. Augmentation parameters
      c. Different parameters
      d. Trying different models
      e. Tried training with different image size and validation like k-fold
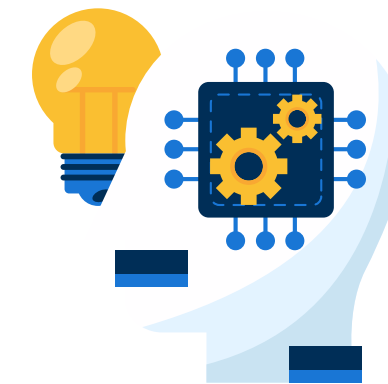   validation

Dataset modifications:
- After going through the training dataset, we found that the image labels are quite inconsistent. So, we decided to correct the existing labels and also hand label some of the new unannotated objects from the training images.
- For example, we found a lot of wheelbarrows that needed to be annotated
- Same car is annotated as a car/minivan/van/suv in the same frame. So we gambled and decide to make it the same label
- We found a lot of inconsistencies in van and minivan annotation as well as truck and pickup annotation. So we fixed it.

Number of weights
On our final inference we used 4 different weights.These weights are described below:
      a. In this model, we trained complete 3000 training images with corrected labels. Resolution: 1024x1024
      b. In this model, we trained with training images along with some of our extended datasets. Resolution: 1024x1024
      c. In this model, the same extended dataset but a different validation set from before. Resolution: 1024x1024
      d. In this model, the same extended dataset but a different validation set from before. Resolution: 640x1024

(The main reason behind using different size images is to detect small and large objects on tests.)

Model
    YOLO V5x

Repo
    github.com/ultralytics/yolov5