

# Assignment

# Approach

- The simple approach has been adopted. A single image file and xml file corresponding to it, are read.
- Using the 'object' child tag in xml file, information of name and coordinates of the bounding box are extracted.
- This data is accumulated and sent to the box\_plot function to plot the boxes and text.
- Opencv library has been used to draw the rectangles and saving the images files

# Pseudo code

- Files1  $\leftarrow$  Image files with png extension
- files2  $\leftarrow$  Image files with jpg extension
- Files  $\leftarrow$  Files from Files1 and Files2 are combined
- Repeat **for** each file  $f$  in Files:
  - tree  $\leftarrow$  reading xml file corresponding to  $f$  using
  - root  $\leftarrow$  creating object of function
  - data  $\leftarrow$  []
  - Repeating **for** all object child  $obj$  under root:
    - name  $\leftarrow$  text for state of traffic light
    - Repeat **for** all bounding box  $x$  under  $obj$ :
      - xmin  $\leftarrow$  value of Xmi
      - ymin  $\leftarrow$  value of Ymin
      - xmax  $\leftarrow$  value of Xmax
      - ymax  $\leftarrow$  value of Ymax
      - data  $\leftarrow$  [name, xmin, ymin, xmax, ymax]
  - box\_plot(i, data) #calling function box\_plot to plot rectangle using data using Opencv