In [2]:
```
!pip install imageai
```

```
Collecting imageai
  Downloading imageai-2.1.6-py3-none-any.whl (160 kB)
Collecting scipy==1.4.1
  Using cached scipy-1.4.1-cp38-cp38-win_amd64.whl (31.0 MB)
Requirement already satisfied: h5py==2.10.0 in c:\users\bhavani\anaconda3\lib\site-packages (fro
m imageai) (2.10.0)
Collecting pillow==7.0.0
  Downloading Pillow-7.0.0-cp38-cp38-win_amd64.whl (2.0 MB)
Requirement already satisfied: opencv-python in c:\users\bhavani\anaconda3\lib\site-packages (fr
om imageai) (4.5.4.60)
Collecting keras-resnet==0.2.0
  Downloading keras-resnet-0.2.0.tar.gz (9.3 kB)
Collecting matplotlib==3.3.2
  Downloading matplotlib-3.3.2-cp38-cp38-win_amd64.whl (8.5 MB)
Collecting numpy==1.19.3
  Downloading numpy-1.19.3-cp38-cp38-win_amd64.whl (13.3 MB)
Collecting keras==2.4.3
  Using cached Keras-2.4.3-py2.py3-none-any.whl (36 kB)
Requirement already satisfied: six in c:\users\bhavani\anaconda3\lib\site-packages (from h5py==
2.10.0->imageai) (1.15.0)
Requirement already satisfied: pyyaml in c:\users\bhavani\anaconda3\lib\site-packages (from kera
s==2.4.3->imageai) (5.4.1)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\bhavani\anaconda3\lib\site-packages
(from matplotlib==3.3.2->imageai) (1.3.1)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.3 in c:\users\bhavani\anac
onda3\lib\site-packages (from matplotlib==3.3.2->imageai) (2.4.7)
Requirement already satisfied: python-dateutil>=2.1 in c:\users\bhavani\anaconda3\lib\site-packa
ges (from matplotlib==3.3.2->imageai) (2.8.1)
Requirement already satisfied: certifi>=2020.06.20 in c:\users\bhavani\appdata\roaming\python\py
thon38\site-packages (from matplotlib==3.3.2->imageai) (2021.10.8)
Requirement already satisfied: cycler>=0.10 in c:\users\bhavani\anaconda3\lib\site-packages (fro
m matplotlib==3.3.2->imageai) (0.10.0)
Building wheels for collected packages: keras-resnet
  Building wheel for keras-resnet (setup.py): started
  Building wheel for keras-resnet (setup.py): finished with status 'done'
  Created wheel for keras-resnet: filename=keras_resnet-0.2.0-py2.py3-none-any.whl size=20487 sh
a256=1fbb8843a54b49fc88bc74f2fe707e66260e0726e4d03256aad7ccfd55c11d23
  Stored in directory: c:\users\bhavani\appdata\local\pip\cache\wheels\be\90\98\9d455f04a7ca2773
66b36c660c89d171ff5abb7bdd8a8b8e75
Successfully built keras-resnet
Installing collected packages: numpy, scipy, pillow, keras, matplotlib, keras-resnet, imageai
  Attempting uninstall: numpy
    Found existing installation: numpy 1.19.5
    Uninstalling numpy-1.19.5:
      Successfully uninstalled numpy-1.19.5
  Attempting uninstall: scipy
    Found existing installation: scipy 1.6.2
    Uninstalling scipy-1.6.2:
      Successfully uninstalled scipy-1.6.2
  Attempting uninstall: pillow
    Found existing installation: Pillow 8.2.0
    Uninstalling Pillow-8.2.0:
      Successfully uninstalled Pillow-8.2.0
  Attempting uninstall: keras
    Found existing installation: keras 2.7.0

ERROR: pip's dependency resolver does not currently take into account all the packages that are
installed. This behaviour is the source of the following dependency conflicts.
orange3-imageanalytics 0.6.0 requires cachecontrol, which is not installed.
orange3-imageanalytics 0.6.0 requires lockfile, which is not installed.
orange3-imageanalytics 0.6.0 requires Orange3>=3.25.0, which is not installed.
spleeter 2.3.0 requires tensorflow==2.5.0, but you have tensorflow 2.4.1 which is incompatible.
pyldavis 3.3.1 requires numpy>=1.20.0, but you have numpy 1.19.3 which is incompatible.
gensim 4.0.1 requires Cython==0.29.21, but you have cython 0.29.24 which is incompatible.
bokeh 2.3.2 requires pillow>=7.1.0, but you have pillow 7.0.0 which is incompatible.

    Uninstalling keras-2.7.0:
      Successfully uninstalled keras-2.7.0
  Attempting uninstall: matplotlib
    Found existing installation: matplotlib 3.3.4
    Uninstalling matplotlib-3.3.4:
      Successfully uninstalled matplotlib-3.3.4
```

```
Successfully installed imageai-2.1.6 keras-2.4.3 keras-resnet-0.2.0 matplotlib-3.3.2 numpy-1.
19.5 pillow-7.0.0 scipy-1.4.1
```

In [17]:

```
# importing the required library
from imageai.Detection import ObjectDetection
# instantiating the class
recognizer = ObjectDetection()
# defining the paths
path_model = "C:\\Users\\BHAVANI\\Documents\\computer vision projects\\object detection mxnet\\yo
path_input = "C:\\Users\\BHAVANI\\Documents\\computer vision projects\\object detection mxnet\\1.
path_output = "C:\\Users\\BHAVANI\\Documents\\computer vision projects\\object detection mxnet\\n
# using the setModelTypeAsTinyYOLOv3() function
recognizer.setModelTypeAsTinyYOLOv3()
# setting the path to the pre-trained Model
recognizer.setModelPath(path_model)
# loading the model
recognizer.loadModel()

# calling the detectObjectsFromImage() function
recognition = recognizer.detectObjectsFromImage(
    input_image = path_input,
    output_image_path = path_output
    )

# iterating through the items found in the image
for eachItem in recognition:
    print(eachItem["name"] , " : ", eachItem["percentage_probability"])
```

```
person  :  61.83493137359619
bicycle  :  55.07863759994507
dog  :  88.69479298591614
dog  :  81.70446157455444
```