Resize images This will make training your data much faster

In [ ]:

```
!mkdir /home/sahil/pikachu/resized
```

In [4]:

```python
from PIL import Image
import os, sys

path = "/home/sahil/pikachu/"
dirs = os.listdir( path )

def resize_images():
    for item in dirs:
        if os.path.isfile(path+item):
            im = Image.open(path+item)
            f, e = os.path.splitext(path+item)
            imResize = im.resize((64,64), Image.ANTIALIAS)
            imResize.save(path+'resized/'+item, 'JPEG', quality=90)

resize_images()
```

Deleting old files

In [17]:

```
rm /home/sahil/pikachu/*.jpg
```

In [5]:

```python
print("Path for new resized images:\n"+path+'resized/')
```

```
Path for new resized images:
/home/sahil/pikachu/resized/
```

Rename file names(Preferably in sorted way)

In [9]:

```python
import os
import glob

def rename():
    path = "/home/sahil/pikachu/resized/"
    for count, filename in enumerate(sorted(os.listdir(path))):
        dst = str(count+1) + ".jpg"
        src =path + filename
        dst =path + dst
        os.rename(src, dst)

rename()
```

In [22]:

```
cd /home/sahil/pikachu
```

/home/sahil/pikachu

Clone this repo for creating labels(Annotation)

In [16]:

```
!git clone https://github.com/miki998/YoloV3_Annotation_Tool.git
```

```
Cloning into 'YoloV3_Annotation_Tool'...
remote: Enumerating objects: 43, done.
remote: Total 43 (delta 0), reused 0 (delta 0), pack-reused 43
Unpacking objects: 100% (43/43), 619.70 KiB | 792.00 KiB/s, done.
```

In [19]:

```python
def custom():
    path = "/home/sahil/pikachu/resized/"
    label_prefix = "./data/customdata/images/"
        # We will need this prefix in custom.txt file for handling the images an
d labels
    file = open("/home/sahil/pikachu/custom.txt","w")
    for count, filename in enumerate(os.listdir(path)):
        fn = (path + filename)
        file.write(label_prefix + filename + "\n")

custom()
```

cat /home/sahil/pikachu/custom.txt

In [29]:

```
cd YoloV3_Annotation_Tool/
```

/home/sahil/pikachu/YoloV3_Annotation_Tool

In [30]:

```
ls
```

```
classes.txt   main.py       README.md    standardize.py   train.txt
Images/       process.py    resize.py    test.txt         verify.py
```

Finally annotate the images

In [36]:

```
!python3 main.py
```

```
476 images loaded from
[0, 0] 0
Image No. 1 saved
Image No. 2 saved
Image No. 3 saved
Image No. 4 saved
Image No. 5 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 6 saved
Image No. 7 saved
Image No. 8 saved
Image No. 9 saved
Image No. 10 saved
Image No. 11 saved
Image No. 12 saved
Image No. 13 saved
Image No. 12 saved
Image No. 13 saved
Image No. 14 saved
Image No. 15 saved
Image No. 16 saved
Image No. 17 saved
Image No. 18 saved
Image No. 19 saved
Image No. 20 saved
Image No. 21 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 22 saved
Image No. 23 saved
Image No. 24 saved
Image No. 25 saved
Image No. 26 saved
Image No. 27 saved
[0, 0] 0
Image No. 28 saved
Image No. 29 saved
Image No. 30 saved
Image No. 31 saved
Image No. 32 saved
Image No. 33 saved
Image No. 34 saved
Image No. 35 saved
Image No. 36 saved
Image No. 37 saved
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Image No. 39 saved
Image No. 40 saved
Image No. 41 saved
Image No. 42 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 43 saved
Image No. 44 saved
Image No. 45 saved
Image No. 46 saved
Image No. 47 saved
Image No. 48 saved
Image No. 49 saved
Image No. 50 saved
```

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Image No. 51 saved
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Image No. 57 saved
Image No. 58 saved
Image No. 59 saved
Image No. 60 saved
Image No. 61 saved
Image No. 62 saved
Image No. 63 saved
Image No. 64 saved
Image No. 65 saved
Image No. 66 saved
Image No. 67 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 68 saved
[0, 0] 0
Image No. 69 saved
Image No. 70 saved
Image No. 71 saved
Image No. 72 saved
Image No. 73 saved
Image No. 74 saved
Image No. 75 saved
Image No. 76 saved
[0, 0] 0
Image No. 77 saved
Image No. 78 saved
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Image No. 81 saved
Image No. 82 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 83 saved
Image No. 84 saved
Image No. 85 saved
[0, 0] 1
Image No. 86 saved
Image No. 87 saved
Image No. 88 saved
Image No. 89 saved
[0, 0] 0
[0] 0
Image No. 90 saved
Image No. 91 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 92 saved
Image No. 93 saved
Image No. 94 saved
Image No. 95 saved
Image No. 96 saved
Image No. 97 saved
Image No. 98 saved
[0, 0] 0
Image No. 99 saved
```

```
Image No. 100 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 101 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 102 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
[0] 0
Image No. 103 saved
Image No. 104 saved
Image No. 105 saved
Image No. 106 saved
Image No. 107 saved
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Image No. 111 saved
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Image No. 119 saved
Image No. 120 saved
Image No. 121 saved
Image No. 122 saved
Image No. 123 saved
Image No. 124 saved
Image No. 125 saved
Image No. 126 saved
Image No. 127 saved
[0] 0
Image No. 128 saved
Image No. 129 saved
Image No. 130 saved
Image No. 131 saved
Image No. 132 saved
[0, 0] 0
Image No. 133 saved
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Image No. 150 saved
Image No. 151 saved
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[0] 0
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in this display the whole picture is not shown
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[0, 0] 0
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in this display the whole picture is not shown
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Alert for standard resolution computers: please resize your picture,
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Image No. 177 saved
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Image No. 179 saved
Image No. 180 saved
Image No. 181 saved
[0, 0, 0] 1
Image No. 182 saved
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Image No. 206 saved
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[0, 0, 0] 1
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Image No. 247 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
[0] 0
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Image No. 250 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
```

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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
[0] 0
Image No. 300 saved
Image No. 301 saved
Alert for standard resolution computers: please resize your picture,
```

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in this display the whole picture is not shown
Image No. 302 saved
Image No. 303 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 304 saved
Image No. 305 saved
[0] 0
Image No. 306 saved
['0'] 0
Image No. 305 saved
Image No. 306 saved
Image No. 307 saved
Image No. 308 saved
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Image No. 311 saved
[0] 0
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Image No. 313 saved
Alert for standard resolution computers: please resize your picture,
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Image No. 335 saved
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Image No. 363 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 364 saved
Image No. 365 saved
Image No. 366 saved
['0', 0] 1
['0'] 0
Image No. 365 saved
Image No. 366 saved
Image No. 365 saved
Image No. 366 saved
[0] 0
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 424 saved
Image No. 425 saved
[0, 0, 0] 1
Image No. 426 saved
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Image No. 428 saved
Image No. 429 saved
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
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Image No. 454 saved
Alert for standard resolution computers: please resize your picture,
in this display the whole picture is not shown
Image No. 455 saved
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Image No. 457 saved
Image No. 458 saved
Image No. 459 saved
[0] 0
Image No. 460 saved
Image No. 461 saved
Image No. 462 saved
Image No. 463 saved
[0] 0
[0] 0
Image No. 464 saved
Image No. 465 saved
Image No. 466 saved
Image No. 467 saved
Image No. 468 saved
Image No. 469 saved
Image No. 468 saved
Image No. 469 saved
Image No. 470 saved
Image No. 471 saved
[0, 0] 0
Image No. 472 saved
Image No. 473 saved
Image No. 474 saved
Image No. 475 saved
[0, 0] 0
Image No. 476 saved
Image No. 476 saved
```

In [31]:

```
!python process.py Images
```

Warning: we assume that all pictures to be processed are jpgs

Create custom.shapes with image dimensions We don't need this as we have already resized the images to 64 x 64

In [38]:

```python
from PIL import Image
import os, sys
path = "/home/sahil/pikachu/resized/"
file = open("/home/sahil/pikachu/custom.txt")
custom_shapes = open("/home/sahil/pikachu/custom.shapes","w")

for line in file:
    im = Image.open(path+line.split('/')[-1].rstrip())
    width, height = im.size
    custom_shapes.write(str(width)+" "+str(height)+"\n")
custom_shapes.close()
```

Run this code anyway. It will create a custom.shapes file containing the size of each pic in same order as custom.txt