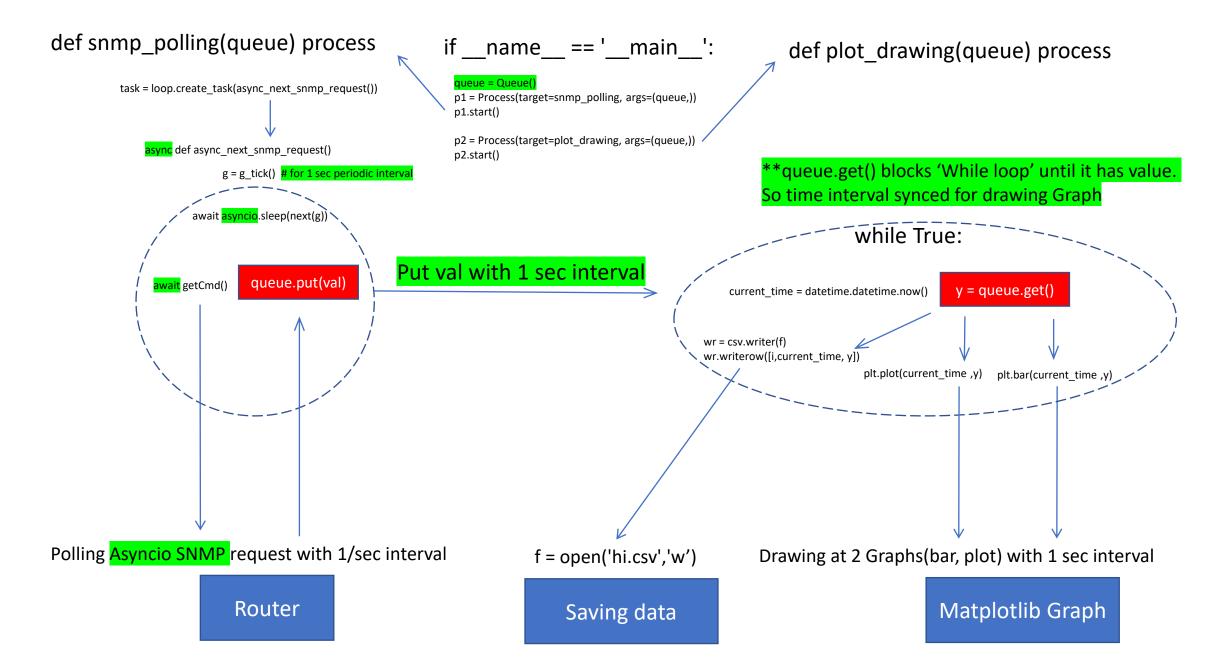- SNMP Mib browser_v1
  - This feature will be merged to "Tools for networkers v4.2"
  - This feature is a standalone simple program to test/run SNMP&Matplotlib.

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- Main features

0. Using Multiprocessing and Queue() to communicate between multi-processes

1. Pysnmp lib
    - Install : pip install pysnmp
    - Aysncio snmp feature used. Which is not working with python 3.7.2, but 3.8

2. Matplotlib lib
    - Install : pip install matplotlib.
    - 2 Graph features used to draw in real time : plt.plot(), plt.bar()
    1). plt.plot() : for X, Y axis , LIST has to be used.

3. csv lib
    - Install : pip install csv
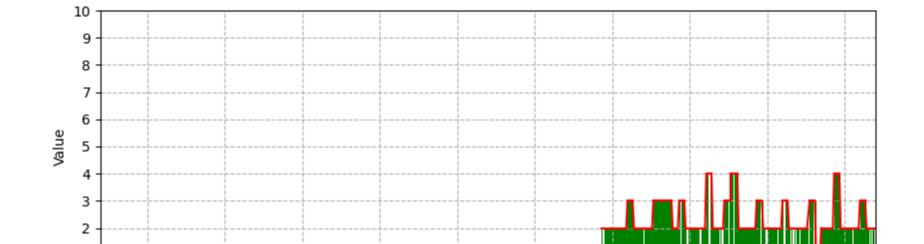   - This used to save data(current time and value)

- Functions in a big shoot

def snmp_polling(queue) process

if __name__ == '__main__':

def plot_drawing(queue) process

task = loop.create_task(async_next_snmp_request())

```
queue = Queue()
p1 = Process(target=snmp_polling, args=(queue,))
p1.start()

p2 = Process(target=plot_drawing, args=(queue,))
p2.start()
```

async def async_next_snmp_request()

g = g_tick()   # for 1 sec periodic interval

**queue.get() blocks 'While loop' until it has value.
So time interval synced for drawing Graph

await asyncio.sleep(next(g))

while True:

await getCmd()   queue.put(val)

Put val with 1 sec interval

current_time = datetime.datetime.now()   y = queue.get()

wr = csv.writer(f)
wr.writerow([i,current_time, y])

plt.plot(current_time ,y)   plt.bar(current_time ,y)

Polling Asyncio SNMP request with 1/sec interval

f = open('hi.csv','w')

Drawing at 2 Graphs(bar, plot) with 1 sec interval

Router

Saving data

Matplotlib Graph

- Running Capture
  - 2 Graphs : bar and plot