Lab 4

In my code, I am using function while() to simulate flows of packets to the virtual output queues. Then we got a scheduler to decide from which queue the packet would be served, which means the selected packet can be sent to proper output.

My scheduler used in the program is a maximal size matching. In each row, I select only the greatest value if the column is available.

```
#SCHEDULER.........:
#maximal size matching
for i in range(N):#row
    for j in range(N):#column
        #find maximal
        if((max<VOQ[i][j]) & (output_reserved[j]==0)):#assign
            max=VOQ[i][j]
            column=j
    if(max>0):
     output_reserved[column]=1
     match[i]=column
    max=0
```

However it is possible to change a scheduler to max size matching:

```
#max size matching
#for i in range(N):#row
 #   for j in range(N):
  #      if((VOQ[i][j]>0) & (output_reserved[j]==0)):
   #         match[i]=j
    #        output_reserved[j]=1
     #       break
```

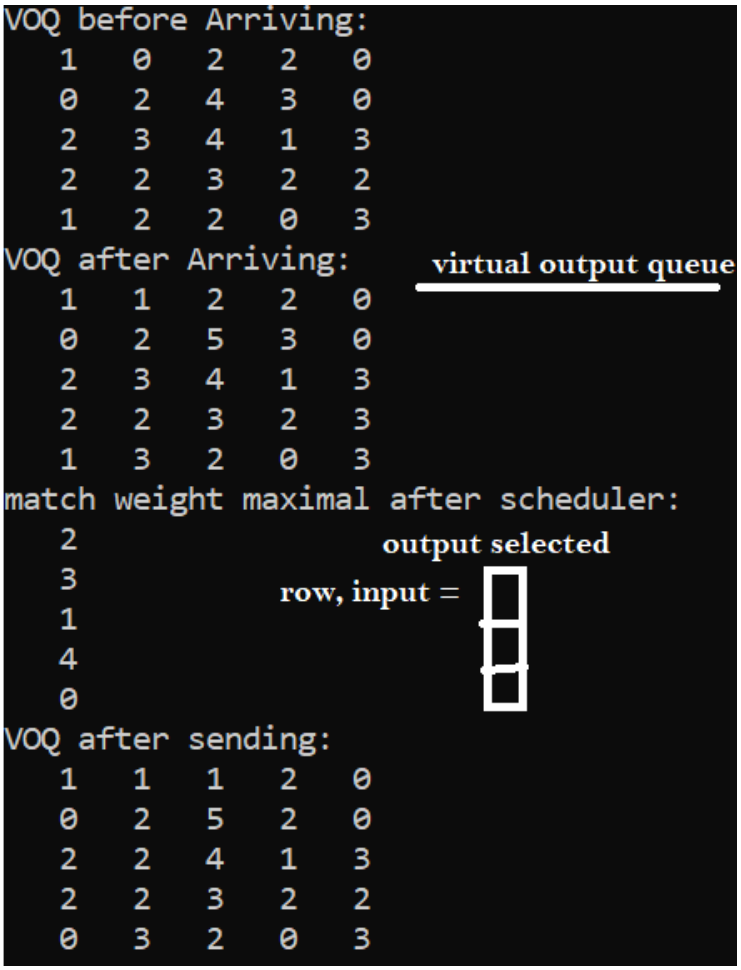
In this part, user is changing probability for arriving and selecting right column.

```
#EACH TIME WITH PROBABILITY ONE ELEMENT PER ROW CAN COME

#choosing columns
columns = [0, 1, 2, 3, 4]
weights_columns = [0.2,0.2, 0.4, 0.2, 0.2]

#packet arrives or no
packet_is_or_no=[0,1]
weight_arrive_per_row=[0.1,1.5]
```

Output:



To run program in cmd line type lab4_simulation.py.

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