

lec4_step5_BarStack_Aligned_Stage4

November 30, 2022

```
[ ]: ## Python basics for novice data scientists, supported by Wagatsuma Lab@Kyutech
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#
# # @Time      : 2020-11-30
# # @Author    : Hiroaki Wagatsuma
# # @Site      : https://github.com/hirowgit/2A1\_python\_intermediate\_course
# # @IDE       : Python 3.9.14 (main, Sep 6 2022, 23:29:09) [Clang 13.1.6
    →(clang-1316.0.21.2.5)] on darwin
# # @File      : lec4_step5_BarStack_Aligned_Stage4.py
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```
[7]: import numpy as np
#prFill=[90 60 50 50 50 90 40 30 80 40 20 ]/100;
prFill=np.array([90, 60, 50, 50, 50, 90, 40, 30, 80, 40, 20])
prFill=prFill/100
fillLine=np.full(len(prFill),True)
LineT=[]
k=0
for i in range(len(prFill)):
    #for i in range(5):
```

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#for i in range(5):
    if fillLine[i]:
        remF=1-prFill[i]
        IDrem=np.where((prFill[i+1:len(prFill)]<=remF) & fillLine[i+1:
→len(prFill)])
        tmp=i
        fID=i
        #j=0
        while IDrem[0].size > 0:
            fID=IDrem[0][0]+fID+1
            tmp=np.append(tmp,fID)
            remF=remF-prFill[fID]
            IDrem=np.where((prFill[fID+1:len(prFill)]<=remF) & fillLine[fID+1:
→len(prFill)])
            LineT.append(tmp)
            fillLine[tmp]=False
            print(k)
            print(LineT)
            k=k+1
            print(k)

```

```

0
[0]
1
1
[0, array([1, 6], dtype=int64)]
2
2
[0, array([1, 6], dtype=int64), array([2, 3], dtype=int64)]
3
3
[0, array([1, 6], dtype=int64), array([2, 3], dtype=int64), array([ 4,  7, 10],
dtype=int64)]
4
4
[0, array([1, 6], dtype=int64), array([2, 3], dtype=int64), array([ 4,  7, 10],
dtype=int64), 5]
5
5
[0, array([1, 6], dtype=int64), array([2, 3], dtype=int64), array([ 4,  7, 10],
dtype=int64), 5, 8]
6
6
[0, array([1, 6], dtype=int64), array([2, 3], dtype=int64), array([ 4,  7, 10],
dtype=int64), 5, 8, 9]
7

```

```
[6]: LineT
```

```
[6]: [0,  
      array([1, 6], dtype=int64),  
      array([2, 3], dtype=int64),  
      array([ 4,  7, 10], dtype=int64),  
      5,  
      8,  
      9]
```

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