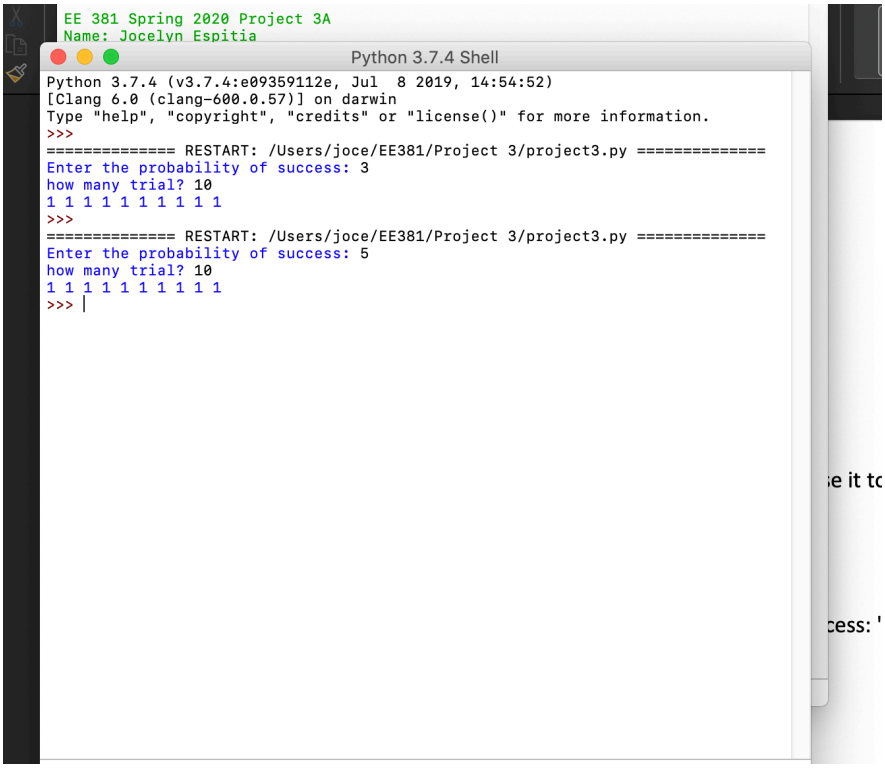
'''
EE 381 Spring 2020 Project 3A
Name: Jocelyn Espitia
ID # 014101709

Start Date: 02-19-2020
End Date: 02-24-2020
Description: Simulate a Bermoulli RV and use it to make a simple Markov process
'''

```
import random

p = float(input("Enter the probability of success: "))
T = int(input("how many trial? "))

for j in range(T):
    r = random.uniform(0, 1)
    if r < p:
        print('1', end=' ') #success
    else:
        print('0', end=' ') #failure
```



'''
EE 381 Spring 2020 Project 3B
Name: Jocelyn Espitia
ID # 014101709

Start Date: 02-19-2020
End Date: 02-24-2020
Description: Simulate a Bermoulli RV and use it to make a simple Markov process
'''

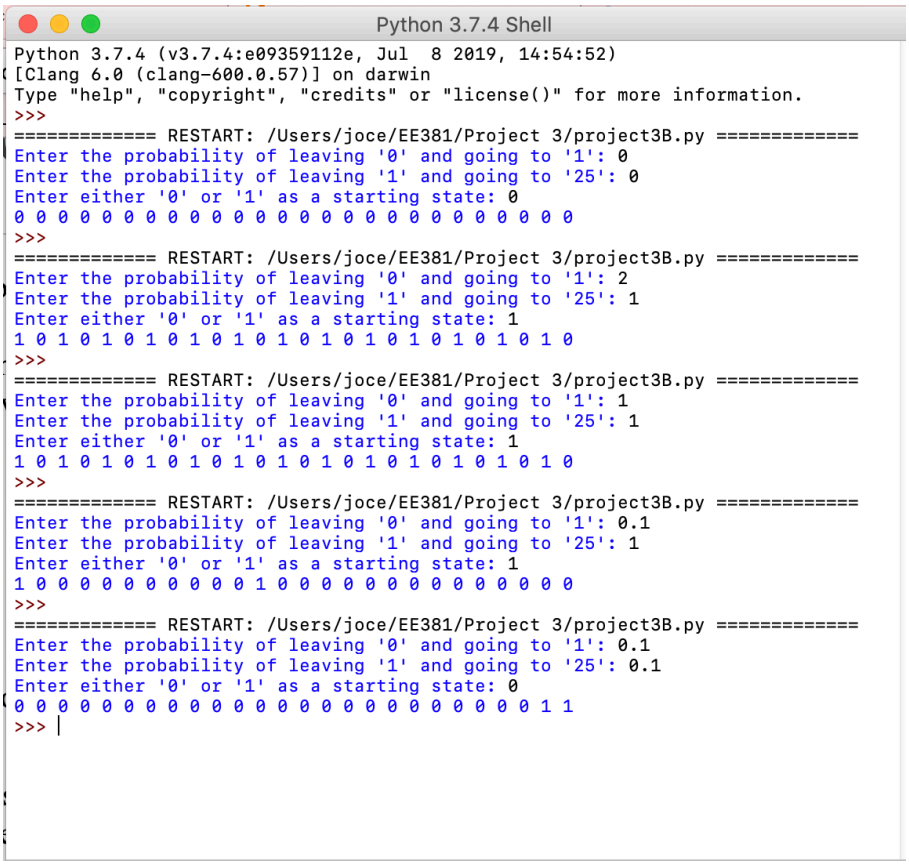
```
import random
RecLoc = []

p_A = float(input("Enter the probability of leaving '0' and going to '1': "))
q_B = float(input("Enter the probability of leaving '1' and going to '25': "))

S = int(input("Enter either '0' or '1' as a starting state: "))
RecLoc.append(S)

for i in range(25):
   r = random.uniform(0, 1)
   if S == 0 and r < p_A:
      S = 1 #moved to node one
   elif S == 1 and r < q_B:
      S = 0 #moved to node zero
   RecLoc.append(S)

for i in RecLoc:
   print(i, end = ' ')
```


Python 3.7.4 Shell
Python 3.7.4 (v3.7.4:e09359112e, Jul 8 2019, 14:54:52)
[Clang 6.0 (clang-600.0.57)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: /Users/joce/EE381/Project 3/project3B.py ==========
Enter the probability of leaving '0' and going to '1': 0
Enter the probability of leaving '1' and going to '25': 0
Enter either '0' or '1' as a starting state: 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
>>>
========== RESTART: /Users/joce/EE381/Project 3/project3B.py ==========
Enter the probability of leaving '0' and going to '1': 2
Enter the probability of leaving '1' and going to '25': 1
Enter either '0' or '1' as a starting state: 1
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
>>>
========== RESTART: /Users/joce/EE381/Project 3/project3B.py ==========
Enter the probability of leaving '0' and going to '1': 1
Enter the probability of leaving '1' and going to '25': 1
Enter either '0' or '1' as a starting state: 1
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
>>>
========== RESTART: /Users/joce/EE381/Project 3/project3B.py ==========
Enter the probability of leaving '0' and going to '1': 0.1
Enter the probability of leaving '1' and going to '25': 1
Enter either '0' or '1' as a starting state: 1
1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
>>>
========== RESTART: /Users/joce/EE381/Project 3/project3B.py ==========
Enter the probability of leaving '0' and going to '1': 0.1
Enter the probability of leaving '1' and going to '25': 0.1
Enter either '0' or '1' as a starting state: 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1
>>>