

```
1  from random import random
2  from time import sleep
3
4
5  def state0():
6      print("State0")
7      # Delay is used to simulate some application logic
8      sleep(0.5)
9      if random() > 0.5:
10         return state1
11     else:
12         return state2
13
14
15  def state1():
16      print("State1")
17      # Delay is used to simulate some application logic
18      sleep(0.5)
19      if random() > 0.5:
20         return state0
21     else:
22         return state2
23
24
25  def state2():
26      print("State2")
27      # Delay is used to simulate some application logic
28      sleep(0.5)
29      if random() > 0.5:
30         return state0
31     else:
32         return None # End
33
34
35  # Main Function
36  if __name__ == "__main__":
37      # Initial state
38      state = state0
39      while state:
40         state = state() # Loop FSM
41
42      print("FSM Done.")
43
```