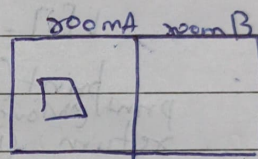# Vaccum cleaner de agent

S1) Assume there are two rooms A and B

S2) Start from either room, check if room is dirty if yes clean it, S2, & if clean go to S3.

S3) Check if neighbour is dirty, if yes move to it and clean it, go to S3 if neighbour is clean return to original ag

S4) Start spau

Percept sequence

room A room B

If A
Start from A
if a is dirty → clean it
if a is clean → move to b
If b is dirty → clean it
if b is clean → move to a
if a is clean, b is clean → Stop.

	Clean	Move
A	Dirty	clean
	Clean	move
B	Dirty	clean

Pseudocode

(1) Initialize an list 2x1   (each index reps room)
(2) Start from either index
    L = [0,0]
    def check (ind):
        if L [ind] == 0 :
            L [ind] = 1   *
        else :
            return (ind +1) % 2

i = random-choice(0,1)

```
while sum(l) != 2:
    i = check(i)
    
    L[i+1] = random.choice(0,1)
```

Code:

```
import random
l = [random.choice([0,1]), random.choice([0,1])]
def check(i):
    if l[i] == 0:
        l[i] = 1
        print(f"Cleaned  room {i}")
    print("Moved to room {(i+1)%2}")
    return (i+1)% 2

i = random.choice([0,1])
print(f"{i} is  Start index")
print(f"0 is disty  1 is clean ")
print(f"{l} is initial state of room")
while sum(l) != 2:
    i = check(i)
    if l[(i+1)%2] == 1:
        l[(i+1)%2] = random.choice([0,1])
        if l[(i+1)%2] == 0:
            print(f" Room {(i+1) %2} got dirty
    print("{l} is current state of rooms")
print("Rooms are clean")
```

Output :-
1 is start index
0 is dirty 1 is clean
[1, 0] is start state of rooms

Cleaned room 1 .
Moved to Room 0
Room 1 got dirty

[1, 0] is current state

Moved to Room 1
Cleaned Room 1
Moved to Room 0
[1, 1] is current state of room

Rooms are clean

29/10/24