

Vacuum Cleaner Problem Algorithm: Step 1: Take the two rooms as an array of numbers where O represents that the room is clean and I represent that the room is derty. Step 2: Start from the first room. Check of 91 is dirty, clean the room and move to its neighbour Step 3: Check if the room is dirty. If the room is dirty, clean the room. Check if all the rooms are clean. If all rooms are clean more to its neighbour and repeat step 3 5th 4: Go back to start. Percept Sequence Location Status Move right Room 1 Move left Room 2 Clean room Room 2

1. 1.0 %
Date Page
Date Page

 $rooms \leftarrow [1,1]$ 

Psudocode:

curr < 0 while Etrue, do

of rooms[curr] == 1, then

 $rooms(aux) \neq 0$   $aux \neq (aux + 1) \neq 0$ 

rooms [aur] rooms (curr) < random (0,1)

1 rooms [curr] = = 0, then break elle

curr < (curr +1) 1.2 i room [aurs] = = 0!

Code: import random

rooms = [rondom choice ([o, ]]), random choice ([e,1])

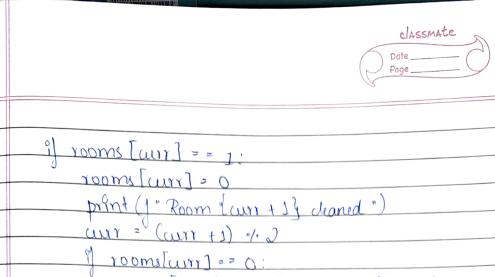
def check (x):

if x:

return "Clean" return " Dirty "

while (1).

print (rooms) print (j' Location: Room Eury + 14, Status: School



rooms [curs] = random choice ([0, 1])

if rooms [cur]: print (j° Room(cur +1) got dirty!") 1 200 ms[auro] = 20.

break else: Curr = (wrr + 1) 10 2

of rooms[curr] == 0:

print (rooms) print ("All rooms are clean!")

Output:

Location; Room 1, Status Clean Location: Rooms, Status: Dirty Room of cleaned

Rooms got dirty! Location: Room 1, Status! Dirty Rooms deaned

All rooms are dean!

[0 0]