PROGRAM-6 VACUUM CLEANER PROBLEM

AIM :

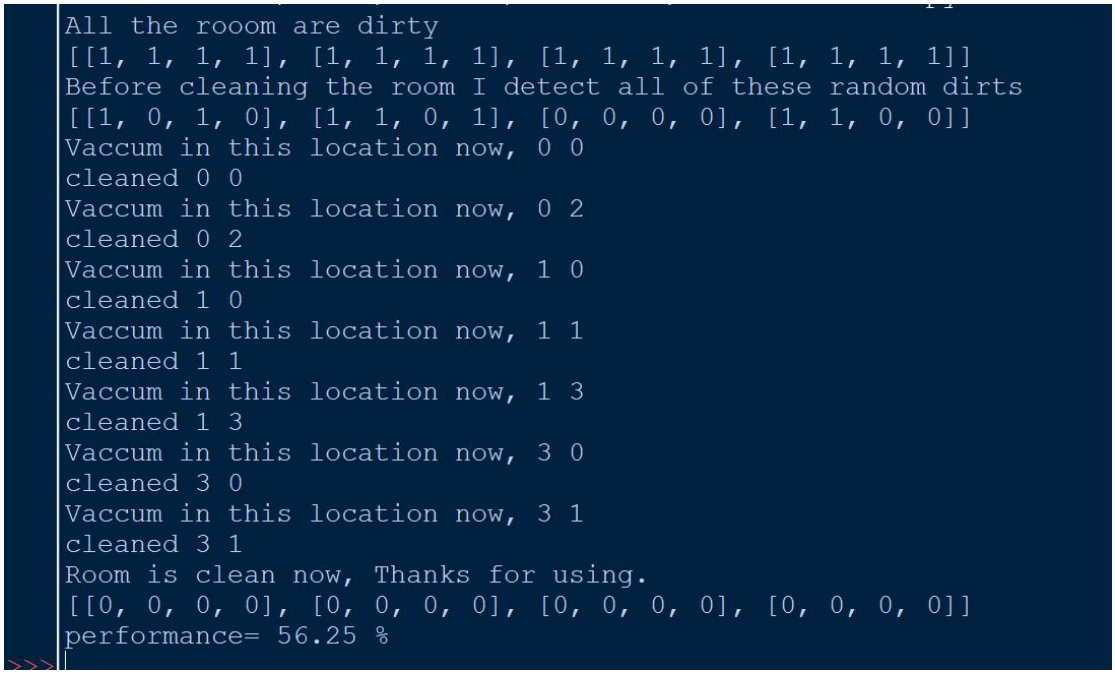
To create a python program to solve the vacuum cleaner problem.

PROGRAM :

```
import random

def display(room):
   print(room)

room = [[1, 1, 1, 1],
       [1, 1, 1, 1],
       [1, 1, 1, 1],
       [1, 1, 1, 1],]
print("All the rooom are dirty")
display(room)

x =0
y= 0
while x < 4:
   while y < 4:
      room[x][y] = random.choice([0,1])
      y+=1
   x+=1
   y=0

print("Before cleaning the room I detect all of these random dirts")
display(room)
x =0
y= 0
z=0
```

```
while x < 4:
   while y < 4:
      if room[x][y] == 1:
         print("Vaccum in this location now,",x, y)
         room[x][y] = 0
         print("cleaned", x, y)
         z+=1
      y+=1
   x+=1
   y=0
pro= (100-((z/16)*100))
print("Room is clean now, Thanks for using.")
display(room)
print('performance=',pro,'%')
```

OUTPUT :



RESULT :

The program has been executed successfully.