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Vaccum Cleaner.

def result (status, location):
    if status == "dirty":
        return status = clean suck
    elif location == "A":
        return action = Right
    else:
        action = return left

main function
    //user input current location and status of both the rooms

while True:

    if 'currentlocation == "A"
        if status is dirty
            action = result (status, location)
                // clean the room and move right
        else
            action = result (status, location)
                // moves right

    else:
        if status is dirty
            action = result (status, location)
                // clean the room and move left

    else
        action = result (status, location)
                move left

check the status of two rooms
if two rooms are clean
break out the loop

A	B
clean	dirty

Percept Sequence:

① A, left
① A, left ② B, clean
① A, left ② B, clean ③ B, right

```
import random

def result(status, location):
    if status == 'dirty':
        return "suck"
    elif location == "A":
        return "right"
    else:
        return "left"

def vacuumcleaner():
    location = random.choice(['A', 'B'])
    statusA = random.choice(['clean', 'dirty'])
    statusB = random.choice(['clean', 'dirty'])
    print("Vaccum cleaner starts at Room{location}")
    Room status: A is {statusA}, B is {statusB}")

    while True:
        if location == 'A':
            status = statusA
        else:
            status = statusB
        action = result(status, location)
        print("Vacuum cleaner is at Room
        {location}, status: {status} -> Action: {action}")
```

```
if action == "suck"
    if location == "A":
        cstatus = "clean"
    else:
        cstatusB = "clean"
    print(f"Room {location} cleaned.")
elif action == "right":
    location = "B"
elif action == "left":
    location = "A"

if cstatusA == "clean" and cstatusB == "clean":
    print("Both rooms are cleaned")
    break
```

vacuumcleaner().

output

Vacuum cleaner is at Room B, room status of A dirty, room status of B clean

Vacuum cleaner is at Room B, Status: clean.

Action: left

~~Room A cleaned~~

Vacuum cleaner is at RoomA, Status: dirty

Action: Suck

Room A cleaned

Both rooms are cleaned.

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action'])

```
Vacuum cleaner starts at Room A. Room status: A is dirty, B is clean
Vacuum cleaner is at Room A, Status: dirty -> Action: suck
Room A cleaned.
Both rooms are now clean. Task finished.
```