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LAB-5 Program 5 -

Implement Vacuum Cleaner Agent

Agent Function :  $\{ ([A: \text{clean}], \text{Right}), ([A: \text{Dirty}], \text{clean}), ([B: \text{clean}], \text{left}), ([B: \text{Dirty}], \text{clean}), ([A: \text{clean}], [B: \text{clean}], \text{stop}), ([A: \text{clean}], [B: \text{dirty}], \text{clean}), \dots \}$

Pseudocode :

function Reflex-vacuum-agent([location, status])  
return an action

    if status = Dirty then return suck  
    else if location = A then return Right  
    else if location = B then return left

Since here there are only two rooms, the possibilities of agent to move are only left and right.

If there are more than 2 rooms then the possibilities will be left, right, up and down.

Implementing vacuum cleaner agent :

Based on this information  
code for

→ Clean a room (floor)

→ Declare grid of size  $m \times n$

→ 0 - clean state    1 - Dirty state of room

→ Depending on value traverse through grid

→ Depending on room location agent moves.



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code to print states room in each move

```
def print_floor (floor, row, col)
```

→ printing the grid every-time we move another room to check the state of room.

→ Once the states of all rooms are 0 it shows that all rooms are cleaned.

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Reeet