```
def vacuum cleaner():
   # Taking input for room states
   goal state = {'A': '0', 'B': '0'} # 0 means Clean, 1 means Dirty
    cost = 0
    # Taking user input for current state
    location input = input("Enter the location of Vacuum (A or B): ").upper()
    status input = input ("Enter the status of " + location input + " (0 for Clean, 1 for Dirty): ")
    status other room = input ("Enter the status of the other room (0 for Clean, 1 for Dirty): ")
    # Display initial state
   print("\nInitial State:")
    if location input == 'A':
        print("Room A:", status input, " | Room B:", status other room)
    else:
        print("Room A:", status other room, " | Room B:", status input)
    # Perform actions
   if location input == 'A':
        if status input == '1':
            print("Room A is Dirty. Cleaning Room A...")
            goal state['A'] = '0'
            cost += 1
        if status other room == '1':
            print("Moving to Room B...")
            cost += 1
           print("Room B is Dirty. Cleaning Room B...")
            goal state['B'] = '0'
           cost += 1
    else: # Vacuum in B
        if status input == '1':
            print("Room B is Dirty. Cleaning Room B...")
            goal state['B'] = '0'
            cost += 1
        if status other room == '1':
            print ("Moving to Room A...")
            cost += 1
            print("Room A is Dirty. Cleaning Room A...")
            goal state['A'] = '0'
            cost += 1
    # Display results
   print("\nGoal State: Room A:", goal state['A'], "| Room B:", goal state['B'])
   print("Performance Measure (Total Cost):", cost)
vacuum cleaner()
```

```
Enter the location of Vacuum (A or B): A
Enter the status of A (0 for Clean, 1 for Dirty): 1
Enter the status of the other room (0 for Clean, 1 for Dirty): 1
Initial State:
Room A: 1 | Room B: 1
Room A is Dirty. Cleaning Room A...
Moving to Room B...
Room B is Dirty. Cleaning Room B...
Goal State: Room A: 0 | Room B: 0
Performance Measure (Total Cost): 3
```