Vacuum Cleaner Program (Lab 2)

```
cost = 0


def helper(status_A, status_B, curr_loc):
    global cost
    if status_A == 0 and status_B == 0:
        print("Goal reached")
        return

    if curr_loc == 'A':
        if status_A == 1:
            print("Room A is dirty, suck operation done")
            cost += 1
            print(f"Cost is {cost}")
            status_A = int(input("Enter the current status of A (0 for clean, 1 for dirty): "))
        else:
            print("Room A is already clean")

        print("Moving right to Room B")
        helper(status_A, status_B, 'B')

    elif curr_loc == 'B':
        if status_B == 1:
            print("Room B is dirty, suck operation done")
            cost += 1
            print(f"Cost is {cost}")
            status_B = int(input("Enter the current status of B (0 for clean, 1 for dirty): "))
        else:
            print("Room B is already clean")
```

```
        print("Moving left to Room A")
        helper(status_A, status_B, 'A')

status_A = int(input("Enter the current status of A (0 for clean, 1 for dirty): "))
status_B = int(input("Enter the current status of B (0 for clean, 1 for dirty): "))
curr_loc = input("Enter the current location of the cleaner (A or B): ")

helper(status_A, status_B, curr_loc)
```

Output:

```
Enter the current status of A (0 for clean, 1 for dirty): 1
Enter the current status of B (0 for clean, 1 for dirty): 1
Enter the current location of the cleaner (A or B): A
Room A is dirty, suck operation done
Cost is 1
Moving right to Room B
Room B is dirty, suck operation done
Cost is 2
Moving left to Room A
Goal reached
```