AI LAB 3- Toy's Problem (Vacuum Problem)

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Batch-CSBS(R1)

Code:

```
def vacuum_cleaner():
    final = {'A': '0', 'B': '0'} #0-clean   1-dirty
    steps = 0
    location= input("Enter Location of Vacuum")
    status= input("Enter status of " + location)
    status_temp = input("Enter status of other room")
    print("Initial Location Condition" + str(final))

    if location == 'A':
        print("Vacuum is placed in Location A")
        if status== '1':
            print("Location A is Dirty.")
            final['A'] = '0'
            steps += 1
            print("Cost for CLEANING A " + str(steps))
            print("Location A has been Cleaned.")

            if status_temp == '1':
                print("Location B is Dirty.")
                print("Moving right to the Location B. ")
                steps += 1
                print("COST for moving RIGHT" + str(steps))
                final['B'] = '0'
                steps += 1
```

```
            print("COST for SUCK " + str(steps))
            print("Location B has been Cleaned. ")
        else:
            print("No action" + str(steps))
            print("Location B is already clean.")

    if status == '0':
        print("Location A is already clean ")
        if status_temp == '1':
            print("Location B is Dirty.")
            print("Moving RIGHT to the Location B. ")
            steps += 1
            print("COST for moving RIGHT " + str(steps))
            final['B'] = '0'
            steps += 1
            print("Cost for SUCK" + str(steps))
            print("Location B has been Cleaned. ")
        else:
            print("No action " + str(steps))
            print(steps)
            print("Location B is already clean.")

else:
    print("Vacuum is placed in location B")
    if status == '1':
        print("Location B is Dirty.")
        final['B'] = '0'
        steps += 1
        print("COST for CLEANING " + str(steps))
        print("Location B has been Cleaned.")
```

```
    if status_temp == '1':
        print("Location A is Dirty.")
        print("Moving LEFT to the Location A. ")
        steps += 1
        print("COST for moving LEFT" + str(steps))
        final['A'] = '0'
        steps += 1
        print("COST for SUCK " + str(steps))
        print("Location A has been Cleaned.")

else:
    print(steps)
    print("Location B is already clean.")

    if status_temp == '1':
        print("Location A is Dirty.")
        print("Moving LEFT to the Location A. ")
        steps += 1
        print("COST for moving LEFT " + str(steps))

        final['A'] = '0'
        steps += 1
        print("Cost for SUCK " + str(steps))
        print("Location A has been Cleaned. ")
    else:
        print("No action " + str(steps))

        print("Location A is already clean.")

print("GOAL STATE: ")
print(final)
```

```
    print("Performance Measurement: " + str(steps))


vacuum_cleaner()
```

Output: