**Assignment No. : 2**

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**Subject : AI**

**Q.)Implement a suitable Agent for a Vacuum World.**

**Ans :**

**Code :**

print("Enter value for A 0:Clean 1:Dirty ")

a = int(input())

print("Enter value for B 0:Clean 1:Dirty ")

b = int(input())

print("Enter position of vacuum cleaner ")

s = input()

cost=0

if(a==0 and b==0 and s=='A'):

cost +=0

print("Both A and B are already cleaned\n")

if (a == 0 and b == 0 and s == 'B'):

cost += 0

print("Both A and B are already cleaned\n")

elif(a==0 and b==1 and s=='A'):

cost +=2

print("A is already cleaned\nMove to B\nB is cleaned")

elif (a == 0 and b == 1 and s == 'B'):

cost += 1

print("B is dirty\nB is cleaned\nA is already cleaned")

elif (a == 1 and b == 1 and s == 'A'):

cost += 3

print("A is dirty\nA is cleaned\nMoved to B\nB is cleaned")

elif (a == 1 and b == 1 and s == 'B'):

cost += 3

print("B is dirty\nB is cleaned\nMoved to A\nA is cleaned")

elif (a == 1 and b == 0 and s == 'A'):

cost += 1

print("A is dirty\nA is cleaned\nB is already cleaned")

elif (a == 1 and b == 0 and s == 'B'):

cost += 2

print("B is already cleaned\nMove to A\nA is cleaned")

print("Cost is ",cost)

**Output :**

Enter value for A 0:Clean 1:Dirty

0

Enter value for B 0:Clean 1:Dirty

1

Enter position of vacuum cleaner

A

A is already cleaned

Move to B

B is cleaned

Cost is 2