

Vacuum Cleaner agent :

function vacuum-world() :

Initialize goal-state = {'A': '0', 'B': '0'}

Initialize cost = 0

location = input("Enter Vacuum Location (A/B):")
status-current = input("Enter status of " +
location + "(0: Clean, 1: Dirty):")
status-other = input("Enter status of the
other room (0: Clean, 1: Dirty):")

if status-current == '1' :

goal-state[location] = '0'

cost += 1

print("Cleaned" + location + ", Cost: " + str(cost))

if status-other == '1' :

print("Moving to the other room")

cost += 1

other-location = 'B' if location == 'A' else 'A'

goal-state[other-location] = '0'

cost += 1

print("Cleaned" + other-location + ", Cost: "
+ str(cost))

print("Goal state: " + str(goal-state))

print("Total cost: " + str(cost))

Output:

Enter location of Vacuum : 2

Enter status of 2 (0 for Clean, 1 for Dirty) : 0

Enter status of the other room : 1

Initial location Condition: {'A': '0', 'B': '0'}

Vacuum is placed in location B.

Location B is already clean.

Location A is Dirty.

Moving left to Location A.

cost for moving left : 1

cost for suck : 2

Location A has been cleaned.

Goal state :

{ 'A' : '0', 'B' : '0' }

Performance Measurement : 2.

Ans / solution

State flow:

