Implement Vacuum Cleaner Agent

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def vacuum_world():
    goal_state = {'A': '0', 'B': '0'}
    cost = 0

    location_input = input("Enter Location of Vacuum (A or B): ").strip().upper()
    status_input = input(f"Enter status of A (0 for Clean, 1 for Dirty): ").strip()
    status_input_complement = input("Enter status of B (0 for Clean, 1 for Dirty): ").strip()

    print("Initial Location Condition: " + str(goal_state))

    if location_input == 'A':
        print("Vacuum is placed in Location A")
        if status_input == '1':
            print("Location A is Dirty.")
            goal_state['A'] = '0'
            cost += 1
            print("Cost for cleaning A: " + str(cost))
            print("Location A has been Cleaned.")

            if status_input_complement == '1':
                print("Location B is Dirty.")
                print("Moving right to Location B.")
                cost += 1
                print("Cost for moving RIGHT: " + str(cost))

                goal_state['B'] = '0'
                cost += 1
                print("Cost for suck: " + str(cost))
                print("Location B has been Cleaned.")
            else:
                print("Location B is already clean.")
        else:
            print("Location A is already clean.")
            if status_input_complement == '1':
                print("Location B is Dirty.")
                print("Moving RIGHT to Location B.")
                cost += 1
                print("Cost for moving RIGHT: " + str(cost))

                goal_state['B'] = '0'
                cost += 1
                print("Cost for suck: " + str(cost))
                print("Location B has been Cleaned.")
            else:
                print("Location B is already clean.")

    elif location_input == 'B':
        print("Vacuum is placed in Location B")
        if status_input == '1':
            print("Location B is Dirty.")
            goal_state['B'] = '0'  # Clean B
            cost += 1  # Cost for sucking
            print("Cost for cleaning B: " + str(cost))
            print("Location B has been Cleaned.")

            if status_input_complement == '1':
                print("Location A is Dirty.")
                print("Moving LEFT to Location A.")
                cost += 1  # Cost for moving left
                print("Cost for moving LEFT: " + str(cost))

                goal_state['A'] = '0'
                cost += 1
                print("Cost for suck: " + str(cost))
                print("Location A has been Cleaned.")
            else:
                print("Location A is already clean.")
        else:
            print("Location B is already clean.")
            if status_input_complement == '1':
                print("Location A is Dirty.")
                print("Moving LEFT to Location A.")
                cost += 1
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                print("Cost for moving LEFT: " + str(cost))

                goal_state['A'] = '0'
                cost += 1
                print("Cost for suck: " + str(cost))
                print("Location A has been Cleaned.")
            else:
                print("Location A is already clean.")

    print("GOAL STATE: ")
    print(goal_state)
    print("Performance Measurement: " + str(cost))

vacuum_world()
print("-------------------------")
print("Output: 1BM22CS290")
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Enter Location of Vacuum (A or B): A
Enter status of A (0 for Clean, 1 for Dirty): 0
Enter status of B (0 for Clean, 1 for Dirty): 1
Initial Location Condition: {'A': '0', 'B': '0'}
Vacuum is placed in Location A
Location A is already clean.
Location B is Dirty.
Moving RIGHT to Location B.
Cost for moving RIGHT: 1
Cost for suck: 2
Location B has been Cleaned.
GOAL STATE:
{'A': '0', 'B': '0'}
Performance Measurement: 2
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Output: 1BM22CS290
```