**6. Write the python program for Vacuum Cleaner problem**

**PROGRAM:**

def vacuum\_cleaner(environment, location):

print(f"Initial State: {environment}, Vacuum at: {location}")

if environment[location] == 'dirty':

print(f"Cleaning {location}")

environment[location] = 'clean'

other\_room = 'B' if location == 'A' else 'A'

print(f"Moving to {other\_room}")

if environment[other\_room] == 'dirty':

print(f"Cleaning {other\_room}")

environment[other\_room] = 'clean'

print(f"Final State: {environment}")

# Example: Room A is dirty, Room B is clean

environment = {'A': 'dirty', 'B': 'clean'}

vacuum\_cleaner(environment, 'A')

**output:**

**A screenshot of a computer

AI-generated content may be incorrect.**