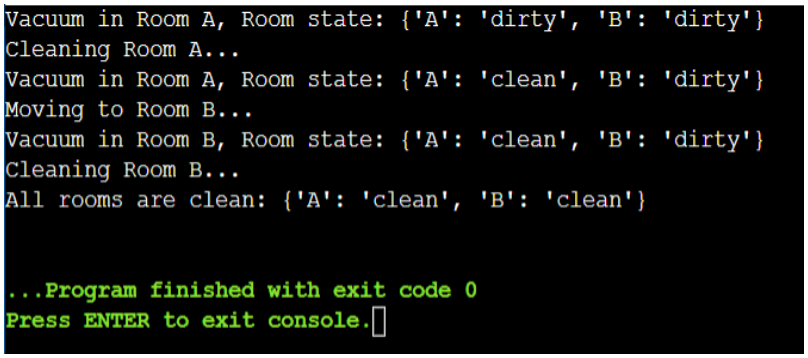
EXPERIMENT:06 Write the python program for Vacuum Cleaner problem

PROGRAM:

```
# Vacuum Cleaner Problem

def vacuum_world():
    # Initial state of the rooms
    rooms = {'A': 'dirty', 'B': 'dirty'}

    # Assume vacuum starts in room A
    location = 'A'

    while 'dirty' in rooms.values():
        print(f"Vacuum in Room {location}, Room state: {rooms}")

        if rooms[location] == 'dirty':
            print(f"Cleaning Room {location}...")
            rooms[location] = 'clean'
        else:
            # Move to the other room
            location = 'B' if location == 'A' else 'A'
            print(f"Moving to Room {location}...")

    print("All rooms are clean:", rooms)

vacuum_world()
```

OUTPUT:


Vacuum in Room A, Room state: {'A': 'dirty', 'B': 'dirty'}
Cleaning Room A...
Vacuum in Room A, Room state: {'A': 'clean', 'B': 'dirty'}
Moving to Room B...
Vacuum in Room B, Room state: {'A': 'clean', 'B': 'dirty'}
Cleaning Room B...
All rooms are clean: {'A': 'clean', 'B': 'clean'}
...Program finished with exit code 0
Press ENTER to exit console.