



## **National University of Modern Languages**

### **Artificial Intelligence - LAB**

**Lab # 5**

**BSSE 5(M)**

**Submitted By:**

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**Submitted To:**

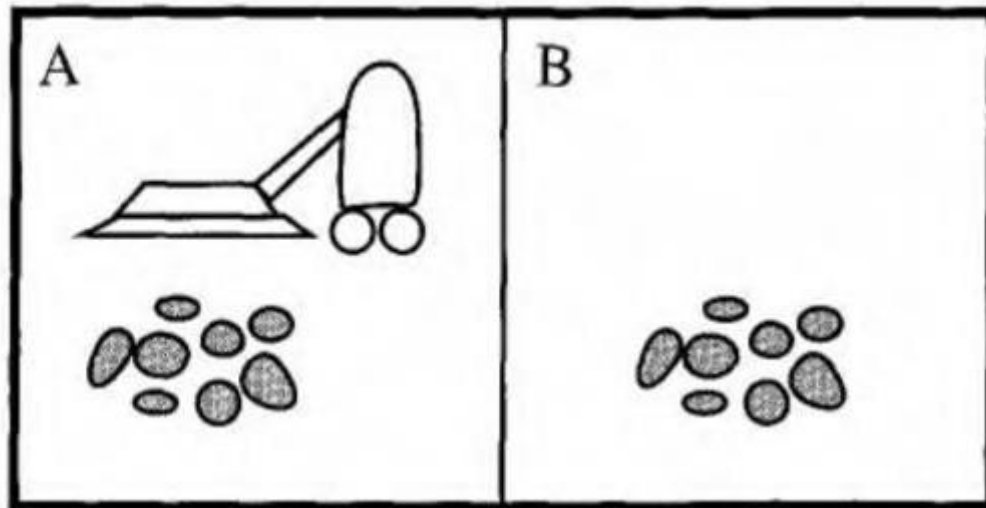
Sir Faiq

## TASK

Consider the vacuum world shown in the figure below:

This particular world has just two locations: squares A and B. The vacuum agent perceives which square it is in and whether there is dirt in the square. It can choose to move left, move right, suck up the dirt, or do nothing. One very simple **agent function** is the following: if the current square is dirty, then suck, otherwise move to the other square. Write a simple reflex agent for the vacuum cleaner. (Hint: Agent has no initial states knowledge)

If the current square is dirty, then suck; otherwise, move to the other square.



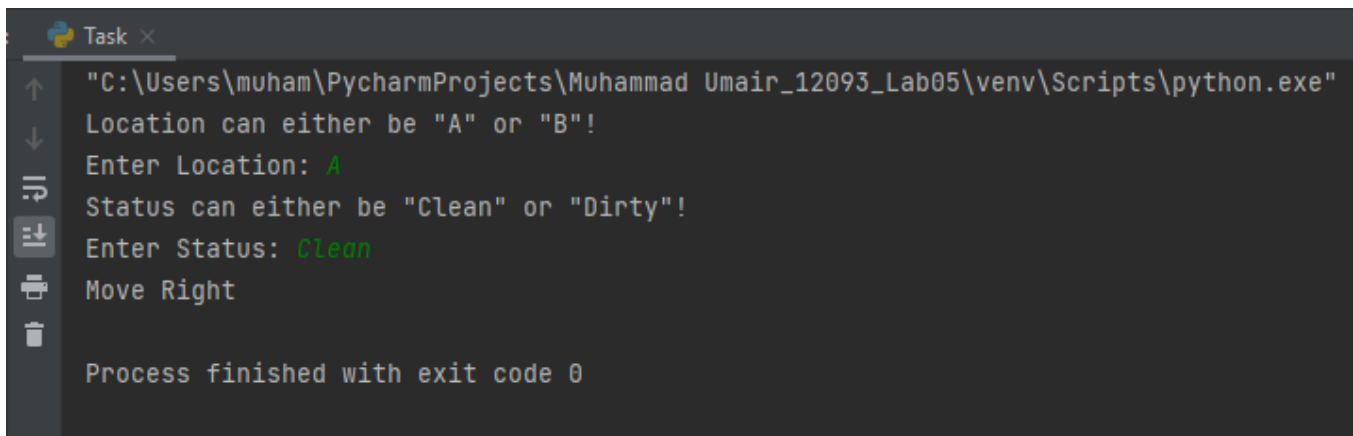
## Code:

```
print("Location can either be \"A\" or \"B\"!")
Location = str(input("Enter Location: "))
print("Status can either be \"Clean\" or \"Dirty\"!")
Status = str(input("Enter Status: "))

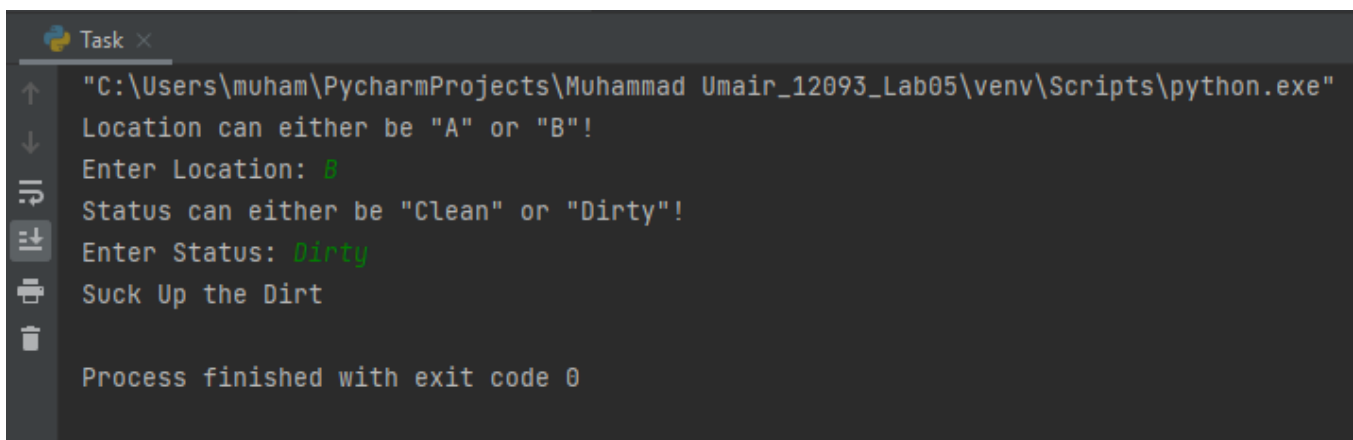
def Reflex_Vacuum_Agent(Location, Status) -> str:
    if Status == "Dirty":
        return "Suck Up the Dirt"
    elif Location == "A":
        return "Move Right"
    elif Location == "B":
        return "Move Left"

print(Reflex_Vacuum_Agent(Location, Status))
```

## Output:



```
Task x
"C:\Users\muham\PycharmProjects\Muhammad Umair_12093_Lab05\venv\Scripts\python.exe"
Location can either be "A" or "B"!
Enter Location: A
Status can either be "Clean" or "Dirty"!
Enter Status: Clean
Move Right
Process finished with exit code 0
```



```
Task x
"C:\Users\muham\PycharmProjects\Muhammad Umair_12093_Lab05\venv\Scripts\python.exe"
Location can either be "A" or "B"!
Enter Location: B
Status can either be "Clean" or "Dirty"!
Enter Status: Dirty
Suck Up the Dirt
Process finished with exit code 0
```