Date:1/10/24
Program Title:Implement Vacuum Cleaner Agent
Algorithm -

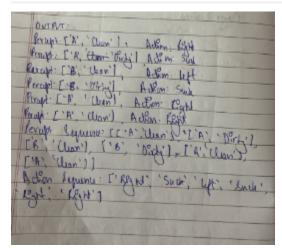
Algorithm -
1/10/20 Date Page
INPLEMENT VACUUM CLEANER AGENT
ALGRETUN
1. Start wim the agent at an insteal totalines or &
Ost the totalion is dirty, perform the atom Suck
(a) If he agent is at b, more what be a ship to he ship to he agent is at b, more with the he ship to he agent is at b, more top to he agent is at b, more with the agent is at b, more top to he agent is at b, more top to he agent is at b, more with the head of the agent is at b, more top to he agent is at b, more with the head of the head o
1 & Me agent is at b, more left to M
3 kiplet for each now proupt until no dry
suffer of the William
4. If have is no fue her atten hedd do NOG
mo. operation
will a rough
OTWT:
Percept: ['A', 'Chan'], Adam: Karth
Rescript: ['B', 'Chan'] Athen: Left Percept: ['B', 'Distri) Athen: Such Percept: ['B', 'Chan'] Athen: Such
Kercupt: [18, 1987hy] Ackem: Such
trapility, with Arthur Post
Perupt: L'A', Clian') Action, Rest
[B' Char'] ['6', 'Dirly'] - ['A', Clar')
[B', Char'], ['6', 'Norh'] ['a' (1)
['A', Clan')]
Action Sepune: ['Reg nt', 'Such', 'Left', 'Such', Leght', 'Such', 'Leght']
Leght, 'Light')
Jan Mary
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ASSESSMENT OF THE PROPERTY OF

Code:

```
def vacuum_cleaner_agent(percept):
      location, status = percept
      if status == 'Dirty':
      elif location == 'A':
       return 'Right'
      elif location == 'B':
        return 'Left'
      else:
       return 'NoOp'
     percepts = [['A', 'Clean'], ['A', 'Dirty'], ['B', 'Clean'], ['B', 'Dirty'], ['A', 'Clean'], ['A', 'Clean']]
    for percept in percepts:
      action = vacuum_cleaner_agent(percept)
      actions.append(action)
      print(f"Percept: {percept}, Action: {action}")
     print("\nPercept Sequence:", percepts)
    print("Action Sequence:", actions)
def vacuum_cleaner_agent(percept):
 location, status = percept
 if status == 'Dirty':
  return 'Suck'
 elif location == 'A':
  return 'Right'
 elif location == 'B':
  return 'Left'
 else:
  return 'NoOp'
percepts = [['A', 'Clean'], ['A', 'Dirty'], ['B', 'Clean'], ['B', 'Dirty'], ['A', 'Clean'], ['A', 'Clean']]
actions = []
for percept in percepts:
 action = vacuum_cleaner_agent(percept)
 actions.append(action)
 print(f"Percept: {percept}, Action: {action}")
print("\nPercept Sequence:", percepts)
```

Snapshot of the output

```
Percept: ['A', 'Clean'], Action: Right
Percept: ['A', 'birty'], Action: Suck
Percept: ['B', 'Clean'], Action: Left
Percept: ['B', 'Dirty'], Action: Suck
Percept: ['A', 'Clean'], Action: Right
Percept: ['A', 'Clean'], Action: Right
Percept Sequence: ['A', 'Clean'], ['A', 'Dirty'], ['B', 'Clean'], ['B', 'Dirty'], ['A', 'Clean'], ['A', 'Clean']]
Action Sequence: ['Right', 'Suck', 'Left', 'Suck', 'Right', 'Right']
```



STATE SPACE TREE:

