(1BM22CS241)

Lab 2: Vacuum Cleaner

```
def vaccum_agent(location, status):
  if status == "1":
    return "Suck " + location
  elif location == "A":
   return "Move Right to B"
  elif location == "B":
   return "Move Left to A"
location = input("Enter initial posistion A or B ")
cost = 0
while(True) :
  statusA = input("Enter status : 1 or 0 ")
  statusB = input("Enter status : 1 or 0 ")
  if statusA == "0" and statusB == "0":
    break
  cost += int(statusA)+int(statusB)
  while(statusA == "1" or statusB == "1"):
      if location == "A":
          print(vaccum_agent(location,statusA))
          if(statusA == '1'):
            statusA = '0'
            print(vaccum_agent(location,statusA))
            location = 'B'
          else:
            location = 'B'
      else :
          print(vaccum_agent(location,statusB))
          if(statusB == '1'):
            statusB = '0'
            print(vaccum_agent(location,statusB))
            location = 'A'
          else:
            location = 'A'
print("------------------------------------------------------------")
print("Goal State",statusA,statusB)
print("Cost = ",cost)
```

Output:

```
Enter initial posistion A or B A
Enter status : 1 or 0 1
Enter status : 1 or 0 0
Suck A
Move Right to B
Enter status : 1 or 0 1
Enter status : 1 or 0 0
Move Left to A
Suck A
Move Right to B
Enter status : 1 or 0 0
Enter status : 1 or 0 0
------------------------------------------------------------
Goal State 0 0
Cost =  2

Enter initial posistion A or B B
Enter status : 1 or 0 1
Enter status : 1 or 0 1
Suck B
Move Left to A
Suck A
Move Right to B
Enter status : 1 or 0 0
Enter status : 1 or 0 0
------------------------------------------------------------
Goal State 0 0
Cost =  2
```