## **VACUUM CLEANER**

## CODE:

```
def vacuum cleaner agent(location, status):
  x, y = location
  if status[x][y] == 'Dirty':
      return f"The vacuum cleaner is at ({x}, {y}) and it is dirty.
Cleaning."
  else:
      return f"The vacuum cleaner is at (\{x\}, \{y\}) and it is clean.
Moving."
status = [['Dirty', 'Clean'], ['Dirty', 'Dirty']]
location = (0, 0)
while True:
   action = vacuum cleaner agent(location, status)
  print(action)
  x, y = location
  if status[x][y] == 'Dirty':
       status[x][y] = 'Clean'
  if status[0][0] == 'Clean' and status[0][1] == 'Clean' and status[1][0]
== 'Clean' and status[1][1] == 'Clean':
      print ("All locations are clean. The vacuum cleaner is finished.")
      break
  if y < 1:
      location = (x, y + 1)
   elif x < 1:
       location = (x + 1, 0)
```

## **OUTPUT**:

```
The vacuum cleaner is at (0, 0) and it is dirty. Cleaning.

The vacuum cleaner is at (0, 1) and it is clean. Moving.

The vacuum cleaner is at (1, 0) and it is dirty. Cleaning.

The vacuum cleaner is at (1, 1) and it is dirty. Cleaning.

All locations are clean. The vacuum cleaner is finished.
```

