Lab 2: Vacuum-Cleaner Agent as a simple Reflex Agent

Introduction

The basic idea behind this lab is to learn the very basic operations that can be implemented in an agent. The example that would be used for this purpose is based on the Vacuum-cleaner Agent implemented as a simple reflex agent. After you finish this lab, you will have a potential idea how to improve the vacuum-cleaner Agent to perform more complex tasks such as cleaning 20 or even more rooms!

Action	Percept sequence
Right	[A, *Clean]*
Suck	[A, *Dirty]*
Left	*[B, Clean]*
Suck	*[B, Dirty]*
Right	*[A, Clean], [A, Clean]*
Suck	*[A, Clean], [A, Dirty]*
Right	*[A, Clean], [A, Clean], [A, Clean]*
Suck	*[A, Clean], [A, Clean], [A, Dirty]*

Algorithm

function REFLEX-VACUUM-AGENT([*location*,*status*]) **returns** an action

if *status* = *Dirty* **then return** *Suck*
else if *location* = *A* **then return** *Right*
else if *location* = *B* **then return** *Left*

Description and Tasks

Implement the environment containing more than 2 squares e.g. 3 squares in a row or 2 rows of squares each containing further 2 squares (giving a total of 4 squares). Be careful with the Actions. Moreover, in case of 3 squares in a row; if the agent is coming from the left-most square then it should be ideally moved to the right most square and so on.
Add the screenshots.