

CMPE 353 - Principles of Artificial Intelligence

Worksheet 02

In this week's worksheet, you are expected to create a program that will take a textual data as input which will contain a set of commands for an agent. These commands will guide the agent to take appropriate actions. Each command is a sentence that can only be ending with “.(dot/full stop)”

The agent lives in an environment, in which, there are two locations, A and B. Each location can be Dirty or Clean. At any given instant, the agent perceives its current location and the current location's status. The goal of this agent to clean the location, if it's dirty.

There are four different action types that this agent might take, these are to move left(L), move right(R), suck the dirt(S) or do nothing(N).

Based on the input that is composed of the commands, the agent will take action and collect some points. Sucking will increase the score by 2 points and moving left or right will decrease the score by 1 point.

Your task is to create a method which converts the textual data into a set of commands, and returns the score point.

Pseudo-code for the agent:

```
def cleaning_agent(percept=[location, status]):  
    if location == A:  
        if status == Dirty:  
            #Suck the dirt.  
            status=Clean  
            #Move to B  
            location=B  
            if status==Dirty:  
                status=Clean  
        else:  
            location=B  
            if status==Dirty:  
                status=Clean  
    elif location==B:  
        if status==Dirty:  
            #Suck the dirt.  
            status=Clean  
            #Move to A  
            location=A
```

