CSCI-561 – Fall 2018 – Foundations of Artificial Intelligence

Homework 1a

Due September 7, 2018 23:59:59

Purpose of this assignment

The aim of this assignment is to introduce you to Vocareum so that you can practice with the system named Vocareum that will be used for all assignments. Homework 1b will be released after the due date of 1a.

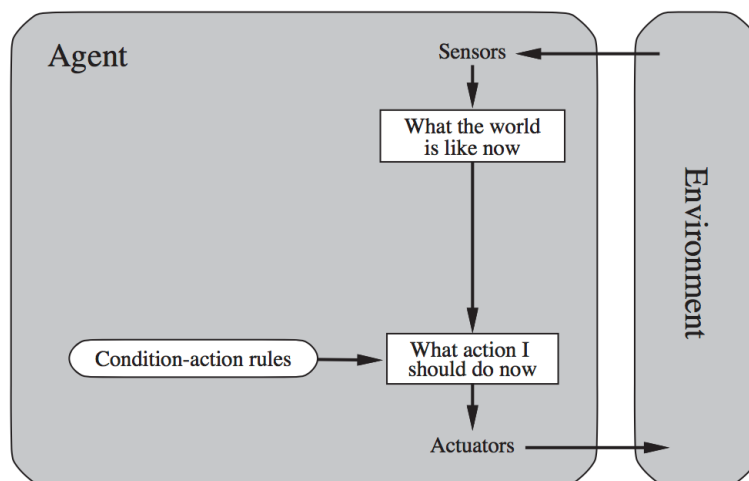## Useful resource

A good tutorial for Python https://www.w3schools.com/python/
A useful tutorial for Vocareum
https://help.vocareum.com/article/30-getting-started-students

Problem Description

In this exercise, you need to implement a simple reflex agent based on what you learned. After that you need to upload your python file to the Vocareum to be graded.

The behavior of a simple reflex agent is as follows:

If status = Dirty

      return Suck

else if location = A

      return Right

else if location = B

      return Left

An illustrative Example

Sample input file (the input file should be named as "input.txt"):

```
A,Clean
B,Clean
A,Dirty
A,Dirty
```

Format: Lines of comma separate value tuples <Location, Status>.

Sample Output File:

```
Right
Left
Suck
Suck
```

Your python script must call the output file "output.txt".

Grading

Your homework submission will be tested as follows:

python hw1acs561f18.py

It should read a text file called "input.txt" in the current directory that contains a problem definition. It should write a file "output.txt" with your solution. The formats for files "input.txt" and "output.txt" are specified below. End-of-line convention is Unix (because Vocareum is a Unix system).
Note that if your code does not compile, or somehow fails to load and parse input.txt, or writes an incorrectly formatted output.txt, or no output.txt at all, or OuTpUt.TxT, you will get zero points.

Sample Test Cases

You are provided with 1 sample test case and output. Please find them in the Homework 1 folder.

Homework Rules

1. You must use Python 2.7 to implement your homework assignment. You are allowed to use standard libraries only. You have to implement any other functions or methods by yourself.
2. You need to create a file named "hw1acs561f18.py". When you submit the homework on labs.vocareum.com, the following commands will be executed: python hw1acs561f18.py
3. Your code must create a file named "output.txt" and print its output there.
4. Homework should be submitted through Vocareum. Homework submitted through email, in person during office hours, or through any channel other than Vocareum will not be accepted. Please only upload your code to the "/work" directory. Don't create any subfolder or upload any other files. Please refer to http://help.vocareum.com/article/30-getting-started-students to get started with Vocareum.
5. Your program should handle all test cases within a reasonable time. A maximum runtime of 3 minutes per test case will be set on Vocareum.
6. You are strongly recommended to submit at least two hours ahead of the deadline, as the submission system around the deadline might be slow and possibly cause late

submission. Late submissions will not be graded.