# **BotClean Partially Observable**



The game Bot Clean took place in a fully observable environment, i.e., the state of every cell was visible to the bot at all times. Let us consider a variation of it where the environment is partially observable. The bot has the same actuators and sensors. But the sensors visibility is confined to its 8 adjacent cells.

#### **Input Format**

The first line contains two space separated integers which indicate the current position of the bot. The board is indexed using Matrix Convention

5 lines follow, representing the grid. Each cell in the grid is represented by any of the following 4 characters:

- 'b' (ascii value 98) indicates the bot's current position,
- 'd' (ascii value 100) indicates a dirty cell,
- '-' (ascii value 45) indicates a clean cell in the grid, and
- 'o' (ascii value 111) indicates the cell that is currently not visible.

## **Output Format**

Output is the action that is taken by the bot in the current step. It can either be any of the movements in 4 directions or the action of cleaning the cell in which it is currently located. Hence the output formats are LEFT, RIGHT, UP, DOWN or CLEAN.

# **Sample Input**

0 0			
D-000			
b-000 -d000 00000			
00000			
00000			
00000			

### **Sample Output**

RIGHT			

#### **Task**

Complete the function next\_move that takes in 3 parameters: posr and posc denote the co-ordinates of the bot's current position, and board denotes the board state, and print the bot's next move.

#### **Scoring**

The goal is to clean all the dirty cells in as few moves as possible. Your score is (200 - #bot moves)/25. All bots in this challenge will be given the same input. CLEAN is also considered a move.

## **Education Links**

• PEAS from the book