

# Tarea1\_201503971

## Agentes Inteligentes

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- 201503971
- IA1

## HTML

```
<html>
  <body>
    <h2>Reflex agent - 201503971</h2>
    <p id="log"></p>
    <script type="text/javascript" src="01_reflex_agent_201503971.js">
</script>
  </body>
</html>
```

## JavaScript

```
/* Shubert Alexander Alonzo Agustin
 * 201503971
 * IA 1
 */
```

```
let posibleStates = [
  ['A', 'CLEAN', 'CLEAN'],
  ['A', 'CLEAN', 'DIRTY'],
  ['A', 'DIRTY', 'CLEAN'],
  ['A', 'DIRTY', 'DIRTY'],
  ['B', 'CLEAN', 'CLEAN'],
  ['B', 'CLEAN', 'DIRTY'],
  ['B', 'DIRTY', 'CLEAN'],
  ['B', 'DIRTY', 'DIRTY'],
]
```

```
function reflexAgent(location, state){
```

```

    if (state==="DIRTY") return "CLEAN";
    else if (location==="A") return "RIGHT";
    else if (location==="B") return "LEFT";
}

function test(states){
    if(posibleStates.length <= 0) return;

    document.getElementById("log").innerHTML+=`<br/>States Left:
    ${posibleStates.map((state) => `<br/>[${state[0]}, ${state[1]},
    ${state[2]}]`)}<br/>`;

    var location = states[0];
    var state = states[0] == "A" ? states[1] : states[2];
    var action_result = reflexAgent(location, state);

    document.getElementById("log").innerHTML+=`<br/> Location: ${location} |
    Action: ${action_result} | Current State => [${location}, ${states[1]},
    ${states[2]}]`;

    let currentState = [location, states[1], states[2]]
    posibleStates = posibleStates.filter((state) => {
        return !((state.length === currentState.length) &&
            state.every((v,i) => currentState[i] === v))
    })

    if (action_result == "CLEAN"){
        if (location == "A") states[1] = "CLEAN";
        else if (location == "B") states[2] = "CLEAN";
    }
    else if (action_result == "RIGHT") states[0] = "B";
    else if (action_result == "LEFT") states[0] = "A";

    let random = Math.floor(Math.random() * 2)
    if(states[1] === 'CLEAN')
        random === 0 ? states[1] = states[1] : states[1] = "DIRTY";
    if(states[2] === 'CLEAN')
        random === 0 ? states[2] = states[2] : states[2] = "DIRTY";
        setTimeout(function(){ test(states); }, 2000);
}

var states = ["A","DIRTY","DIRTY"];
test(states);

```

# Screenshots

File | file:///home/shuberta/Documents/USACNotes/IA1/Clase/Tareas/Tarea%201/Tarea%201%20-%2025%20-%202024/01\_reflex\_agent\_201503971.html

## Reflex agent - 201503971

States Left:

[A, CLEAN, CLEAN],  
[A, CLEAN, DIRTY],  
[A, DIRTY, CLEAN],  
[A, DIRTY, DIRTY],  
[B, CLEAN, CLEAN],  
[B, CLEAN, DIRTY],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: A | Action: CLEAN | Current State => [A, DIRTY, DIRTY]

States Left:

[A, CLEAN, CLEAN],  
[A, CLEAN, DIRTY],  
[A, DIRTY, CLEAN],  
[B, CLEAN, CLEAN],  
[B, CLEAN, DIRTY],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: A | Action: RIGHT | Current State => [A, CLEAN, DIRTY]

States Left:

[A, CLEAN, CLEAN],  
[A, DIRTY, CLEAN],  
[B, CLEAN, CLEAN],  
[B, CLEAN, DIRTY],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: CLEAN | Current State => [B, CLEAN, DIRTY]

States Left:

[A, CLEAN, CLEAN],  
[A, DIRTY, CLEAN],  
[B, CLEAN, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: LEFT | Current State => [B, CLEAN, CLEAN]

States Left:

[A, CLEAN, CLEAN],  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: A | Action: RIGHT | Current State => [A, CLEAN, CLEAN]

States Left:

[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

File | file:///home/shuberta/Documents/USACNotes/IA1/Clase/Tareas/Tarea%201/Tarea%201%20-%202024/01\_reflex\_agent\_201503971.html

[B, CLEAN, CLEAN],  
[B, CLEAN, DIRTY],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: CLEAN | Current State => [B, CLEAN, DIRTY]  
States Left:  
[A, CLEAN, CLEAN],  
[A, DIRTY, CLEAN],  
[B, CLEAN, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: LEFT | Current State => [B, CLEAN, CLEAN]  
States Left:  
[A, CLEAN, CLEAN],  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: A | Action: RIGHT | Current State => [A, CLEAN, CLEAN]  
States Left:  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: LEFT | Current State => [B, CLEAN, CLEAN]  
States Left:  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: A | Action: RIGHT | Current State => [A, CLEAN, CLEAN]  
States Left:  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN],  
[B, DIRTY, DIRTY]

Location: B | Action: CLEAN | Current State => [B, DIRTY, DIRTY]  
States Left:  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN]

Location: B | Action: CLEAN | Current State => [B, DIRTY, DIRTY]  
States Left:  
[A, DIRTY, CLEAN],  
[B, DIRTY, CLEAN]

Location: B | Action: LEFT | Current State => [B, DIRTY, CLEAN]  
States Left:  
[A, DIRTY, CLEAN]

Location: A | Action: CLEAN | Current State => [A, DIRTY, CLEAN]