CircleUp Technical Screener v2.2

“Blocks World”

In this problem you must parse a series of commands that instruct a robot arm how to manipulate blocks that lie on a flat table. Initially there are always *n* blocks on the table, laid flat and numbered from 0 to *n*-1.

0	1	2	3	4	5	6	7	...	n-1

The commands for the robot arm that manipulates blocks take this form:

`MOVE a ONTO b`

Where *a* and *b* are block numbers. This puts block *a* onto block *b* **after** “clearing” any blocks that are stacked on top of blocks *a* and *b* to their initial positions.

Any command in which *a* = *b* or in which *a* and *b* are in the same stack of blocks is an illegal command. All illegal commands should be ignored and should have no effect on the configuration of blocks. You may also ignore the scenario in which a block that needs to be cleared to its initial position would get in the way of either the source or the target.

Example:

TABLE STATE BEFORE:

0	1	2	3	4	5	6	7	...	n-1

`COMMAND>>> MOVE 4 ONTO 1`

TABLE STATE AFTER:

	4								
0	1	2	3		5	6	7	...	n-1

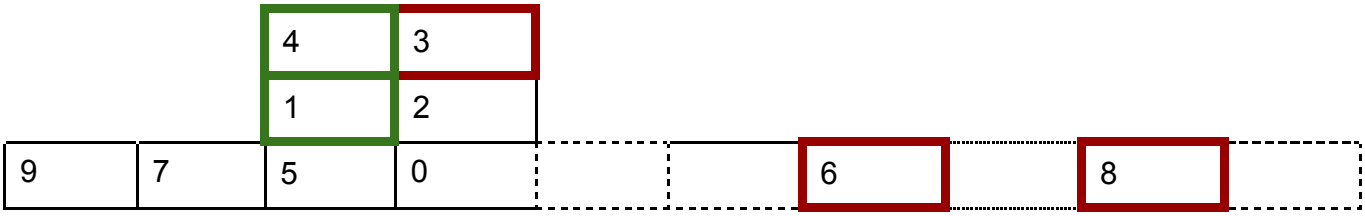
Another Example, with “Clearing”:

TABLE STATE BEFORE:

3									
6		8							
4		**1**	2						
9	7	5	0						

`COMMAND>>> MOVE 4 ONTO 1`

TABLE STATE AFTER MOVE:



Note how 3, 6, and 8 were slotted at the top of the stacks in their original table positions. Then 4 was dropped on top of 1.

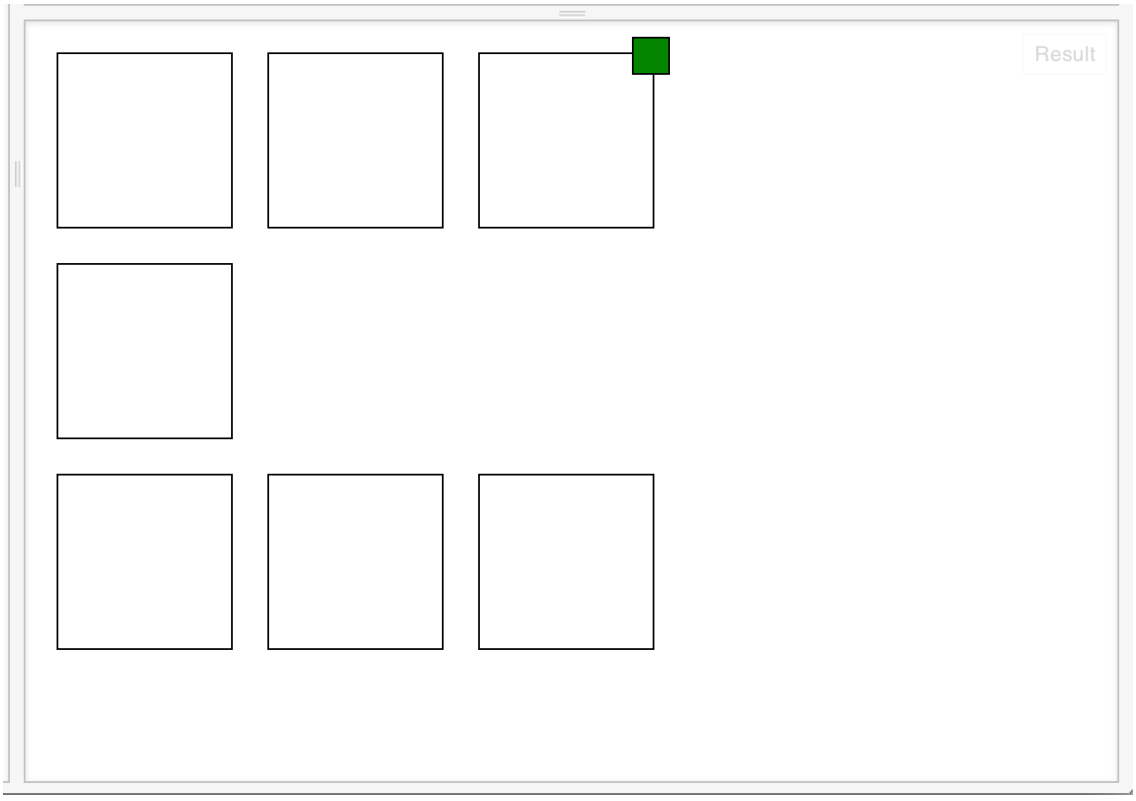
Run this sequence of commands for a blocks world of size 10:

```
move 1 onto 2
move 5 onto 1
move 9 onto 5
move 8 onto 9
move 6 onto 1
move 2 onto 4
```

Print some representation of the state of the world at the end, and share your code for getting there. We value clean & readable code over optimized algorithmic runtime.

“C for CircleUp”:

a. Create the following layout in HTML/CSS: (it’s a “C” for CircleUp with a green “glint” in the corner)



White boxes are 100px by 100px, green box is 24px by 24px. Don’t worry too much about exact margins /

sizing, but it should resemble the image.

b. Write jQuery / javascript so that clicking the large white boxes turns them blue (ignore the little green box). After the last one has been clicked, the green box should turn red and the blue boxes should start "undoing" their blue coloring, in the reverse order that they were clicked, separated by 1 second. Nothing should respond to clicks during this period. After they are all undone, the little red box should become green again and everything should be back to its initial state.

It should behave like in this video:

http://vimeo.com/103005825

Preference is for you to do this on jsfiddle.net and send a link (on jsfiddle, be careful that the URL you copy/paste has updated to reflect final updates)

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