

Sokoban

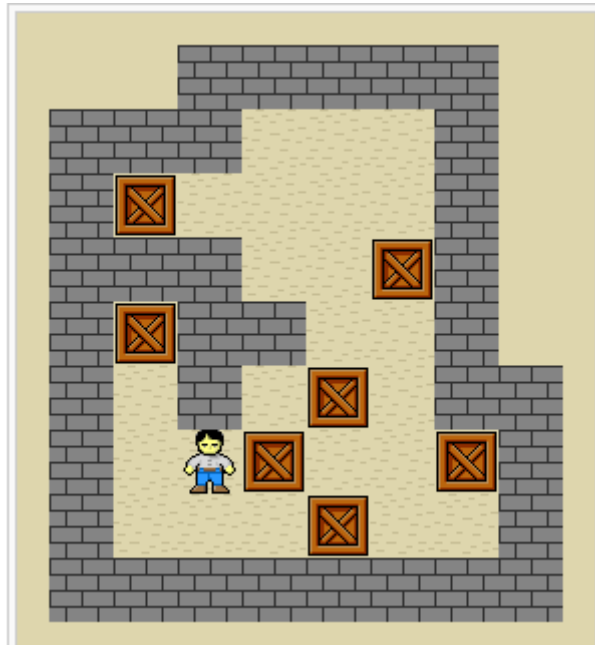
Better Push those Boxes!

Your next challenge is to create the **Sokoban game**.

Play the game a little bit and relax (you can play online here:

<http://www.game-sokoban.com/>).

Read about it here: <https://en.wikipedia.org/wiki/Sokoban>



Game Rules

The game is played on a board of squares, where each square is a floor or a wall. Some floor squares contain boxes, and some floor squares are marked as storage locations.

The player is confined to the board, and may move horizontally or vertically onto empty squares (never through walls or boxes). The player can also move into a box, which pushes it into the square beyond. Boxes may not be pushed into other boxes or walls, and they cannot be pulled. The puzzle is solved when all boxes are at storage locations.

Requirements

- Implement the game
- Count the user's steps, the score may be calculated as 100-stepsCount
- Add a Reset Button

Bonus Points:

- Obstacles:
 - Glue – when stepped upon, player is stuck for 5 seconds and 5 steps are count
 - Water – when pushing a box on water, the box slides all the way it can, and the player with it, here again, steps are counted.
- Bonuses: (a bonus appear in a random available spot every 10 seconds and can be collected by the player, after 5 seconds its gone)
 - Clock – gives the player 10 free steps (not counted)
 - Magnet – if player collecting a magnet, he can pull a box from the wall once
 - Gold – adds 100 Points to the player's score

Tips and Guidelines

As you know, there is usually more than one way to approach a challenge.

Just as a guideline, here are the functions I found myself writing:

| | |
|---------------------------------|--|
| <code>initGame()</code> | This is called when page loads |
| <code>buildBoard()</code> | Returns the board |
| <code>renderBoard(board)</code> | Print the board as a table |
| <code>cellClicked(i, j)</code> | Called when a cell (td) is clicked |
| <code>checkGameOver()</code> | Game is over when all boxes are on targets |

Here are the globals I found myself needing:

| | |
|-----------------------------|-----------------------|
| <code>gBoard</code> | The model |
| <code>var gGamerPos;</code> | i and j for the gamer |