Assignment 4 (HF)

Due: Mon 10.11.2014; 14:00h (1 Week)

Task 1: Puzzle (Drag&Drop)

For this task, please implement a puzzle using HTML, JavaScript and the built-in Drag & Drop functions. Do not use any additional libraries. Below you can see three screenshots, that depict the course of a game:
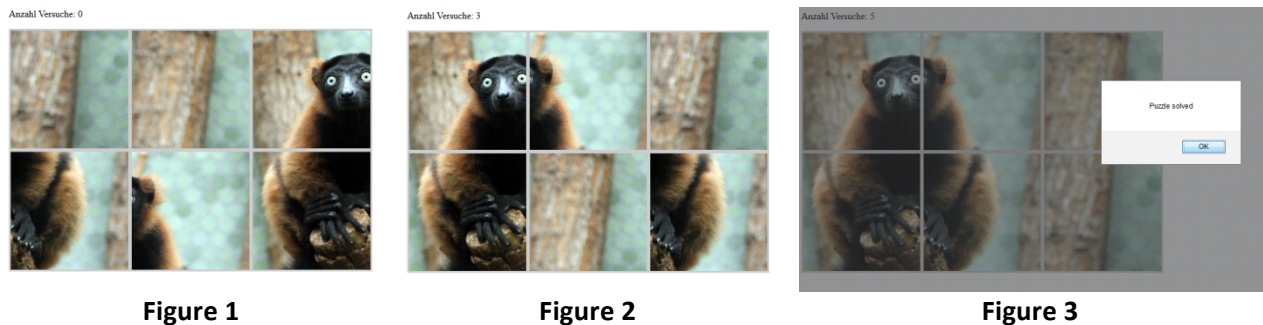

| Figure 1 | Figure 2 | Figure 3 |

Fig. 1 shows the starting state of the game. The puzzle tiles are randomly distributed.
Fig. 2 shows the state after three moves.
Fig. 3 shows the end of the game. All tiles are at the right position.

Your submission should fulfill the following requirements:

- The puzzle tiles are randomly distributed at the beginning of the game. You decide how your grid is organized (3x2, 3x3, …). However, your puzzle should include at least **6** tiles.
- Use the features that DOM manipulation has to offer (e.g. `document.createElement()`). Additionally, you should use JavaScript to add the tiles to the document.
- The user can drag a tile A to another position with the mouse. As soon as the user drops the tile, it is placed at the target position. Tile B, which used to be there, is moved to tile A's original position (in other words, A and B are now swapped).
- There should be a short message informing the user about the required number of moves, such as "You've swapped 10 times".
- The user is notified once the puzzle is solved. Be creative here. You can use an alert or other (friendlier) ways to inform the user.
- Please make sure your code is well commented to facilitate the correction of your script.

Please note:

- If you need to split an image into multiple equal pieces an image splitter can speed up the process: http://imagesplitter.net/