

SIMON SWIPE GAME

STEP TWO:

Generate the sequence of elements to be played:

- Use a function `generateSequence(width, height, level)` that will be invoked from the `startGame` function.
- The number of elements of the sequence will be five times the level of difficulty chosen.
- Use a bidimensional array to store the coordinates of the elements of the sequence.

For each element of the array:

- Use a random function to calculate each of the two coordinates
 $\text{Math.floor}(\text{Math.random()} * (\text{max} - \text{min} + 1))$
- Add the coordinates to the array using the `push` function

Play the sequence that the player will have to repeat:

- Use the function `playSequence()`.
- Use a counter variable *roundNr* to define how many elements are to be shown in each round, starting by one and incrementing it by one as the player repeats the sequence successfully.
- Use the Javascript function `setInterval(showElement, 1000)` to show the elements of the round every one second (1000 ms)
 - Step 3 of the game will modify the seconds depending on the level of difficulty chosen.
- Disable all button events during the process of playing the sequence

Implement the `showElement()` function:

- This function changes the background colour of the corresponding element in the round to red
- When all the elements of the round (*roundNr*) have been reproduced, stop the interval with the function `clearInterval(int)`, and enable the eventListeners of the field buttons.
- Make sure that the elements return to their original color after 1 second.

Update the function `check()`, that is invoked when the *click* event happens:

- When the left button is clicked:

- Check whether the coordinates of the clicked button correspond to those of the element in the round
- If so, increment the *guessed elements number* variable by one, and check if the round is finished (comparing this variable with the *roundNr* variable)
 - If so, increment the score by one and call the function `playSequence` again.
- If not, the player loses: Disable all events, show a message on the message div and stop the chrono.

Winner!

- When the score equals the length of the sequence, the user wins: Disable all events, show a message on the message div and stop the chrono. Can you think where to do this checking?