# **Breakout Game Workshop Documentation**

#### Description

Build a small Browser game and learn the basic concepts of programming. Also host your browser game for free to show everyone what you managed to do in only one afternoon.

Language: JavaScript

## **Prerequisites**

- GitHub account (can be created during the workshop)
- own Laptop(can be provided in offline sessions) with
  Visual Studio Code (<a href="https://code.visualstudio.com/Download">https://code.visualstudio.com/Download</a>) or a similar Text Editor the repository downloaded

### Steps

1. Draw Gameboard

New: use a function

2. Create gameboard variables

New: create variables

3. Draw Circle

New: Use variables

4. Create Ball object

New: create an object

5. Move Ball

New: write functions, use an object

6. Create Ball-Wall Collision

New: use "if-conditions"

- 7. Set game over condition
- 8. Create paddle object and draw it
- 9. Read user input and move paddle
- 10. Paddle-Ball collision
- 11. Create brick template object
- 12. Create bricks and set positions

New: use of arrays and loops

- 13. Draw bricks
- 14. Brick-Ball collision
- 15. Update score and lives
- 16. Let bricks respawn

## **Available Functions**

- function drawBoard (width, height, fillColor) draw the gameboard
- function drawSquare (left, top, fillColor, borderColor) draw a single square on the gameboard
- function drawScore (score) draw the score
- function getRandomNumber (min, max) get a random number between min and max
- function snake\_body\_movement (snake\_body, snake\_length, snake\_head, fruit\_eaten) move the body of the snake around