PIXI SHAPES

Test Task

Required:

1. PIXI, HTML elements, CSS
2. OOP
3. MVC structure
4. Source-code in the public git repository

Would be a plus:

1. TypeScript
2. brief build/deployment manual in Readme.md
3. a few screenshots of the test-app / working example

Requirements

Create a rectangular area.

Inside the rectangular area generate random shapes with random colours.

The shapes must fall down from top to bottom (the generated position is outside the top of the rectangle, the bottom position is outside the bottom of the rectangle). The falling is controlled by the Gravity Value,

If you click inside the rectangle, a random shape of random colour will be generated at mouse position and start falling.

If you click a shape, it will disappear.

Shape types:

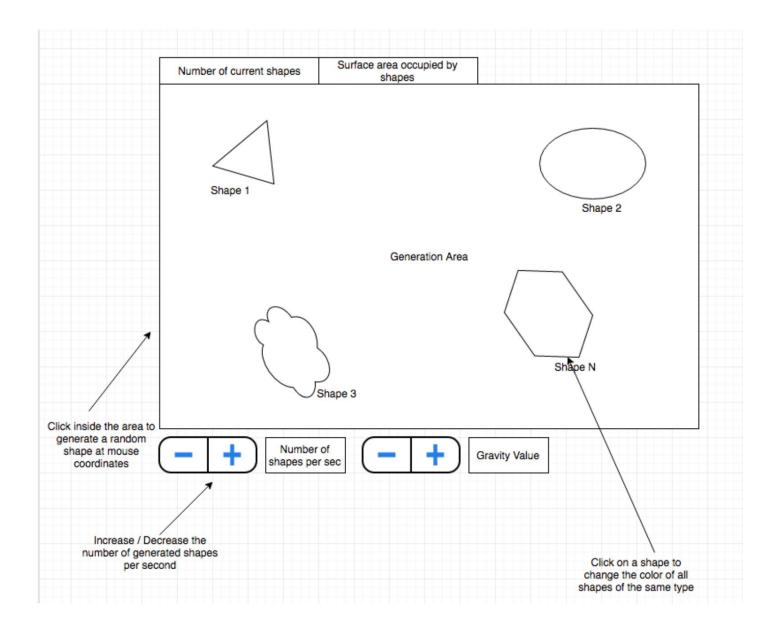3 sides, 4 sides, 5 sides, 6 sides, circle, ellipse, random (example Shape 3)

Visualization:

In the top left you will have two HTML text fields, one showing the number of shapes being displayed in the rectangle. The other text field shows the surface area (in px^2) occupied by the shapes.

In the bottom you will add a couple of controls (HTML):
   -/+ increase or decrease the number of shapes generated per second (update the text field accordingly)
   -/+ increase or decrease the gravity value (update the text value accordingly)

| Number of current shapes | Surface area occupied by shapes |

Shape 1

Shape 2

Generation Area

Shape N

Shape 3

Click inside the area to generate a random shape at mouse coordinates

| − | + | Number of shapes per sec | − | + | Gravity Value |

Increase / Decrease the number of generated shapes per second

Click on a shape to change the color of all shapes of the same type