

Game Setup Lifecycle:

1. Create Coords
2. Check Collision
 - 2a. Collision: return to 1
 - 2b. No Collision: continue to 3
3. Add coords to array
4. Draw circle
5. Add number in circle
6. Return to 1 if more circles needed

createCoords() Lifecycle:

Assumptions:

1. Width of SVG will vary, but example will use 800 as baseline
2. Height of SVG will vary, but example will use 400 as baseline
3. Circle radius is 20

Steps:

1. RNG x coord between 20 and 780
2. RNG Y coord between 20 and 380
3. if(collisionCheck()): restart, else: continue;
4. addToArray()
5. drawCircle()

collisionCheck() Lifecycle: (X1: x coord from array (center of circle), X2: x coord for new circle outer square, same with Y1 and Y2)

1. if(coordsArray.length() < 1)
2. Return True
3. Else check all 4 coords for 4 things: $X2 > X1-R$, $X2 < X1+R$, $Y2 > Y1-R$, $Y2 < Y1+R$
4. Do this 4 times, once for every corner of outer square.
5. If True at any point, collision is present. If false all the time, no collision.

addToArray() Lifecycle:

1. Append center coords to coords array (will figure out syntax later).

drawCircle() Lifecycle:

1. Create new circle element.

addNumber() Lifecycle:

1. Add number to circle based on index and coords in array.