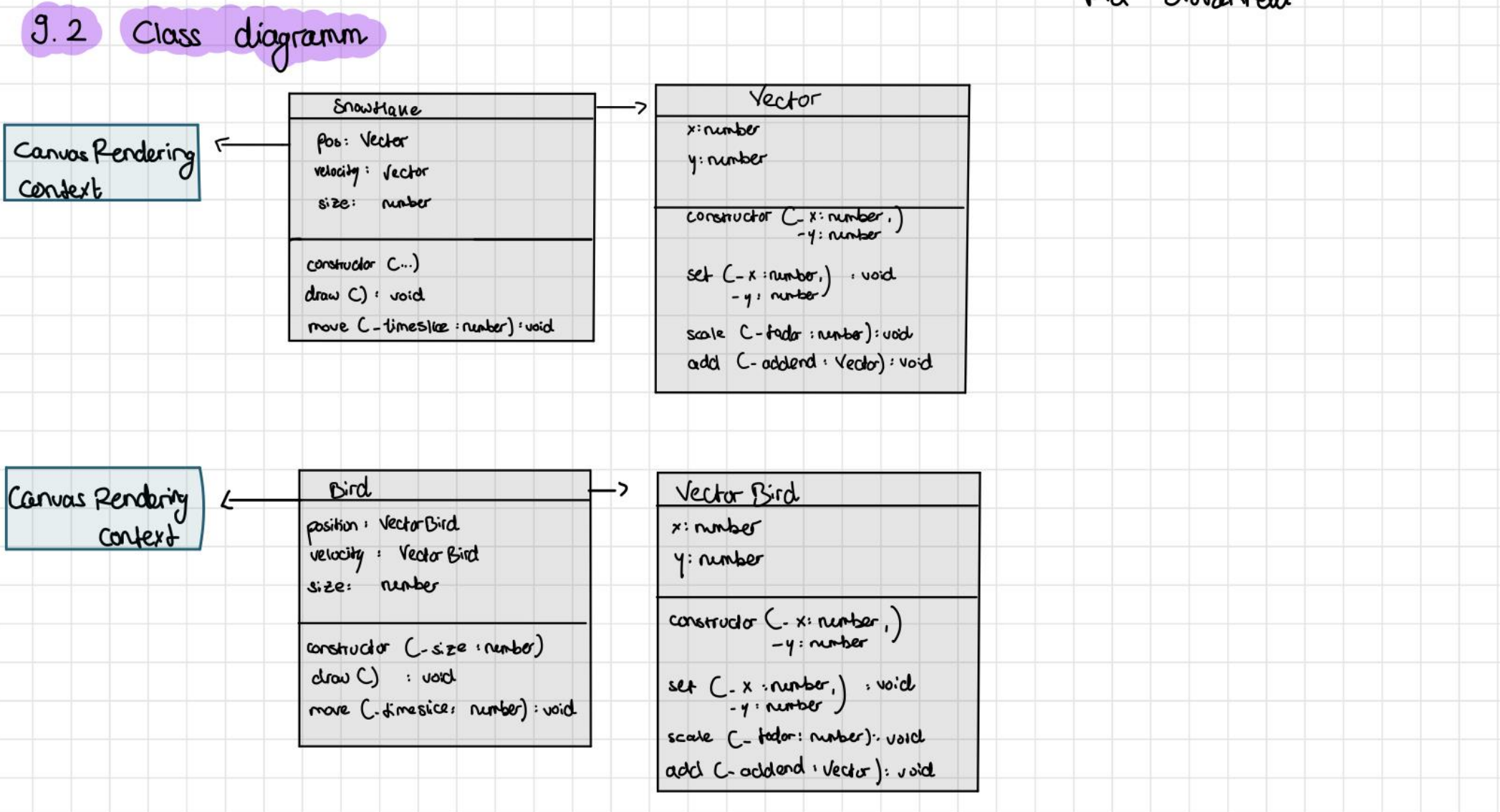
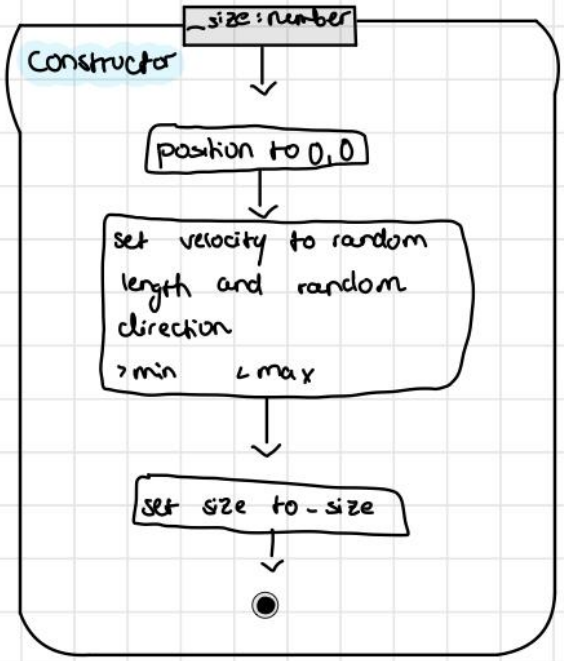
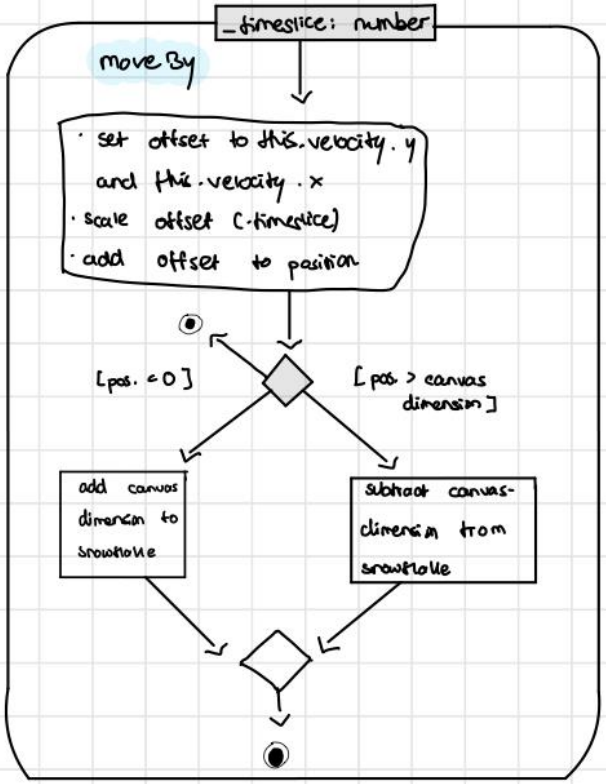
Pia Giovarrelli

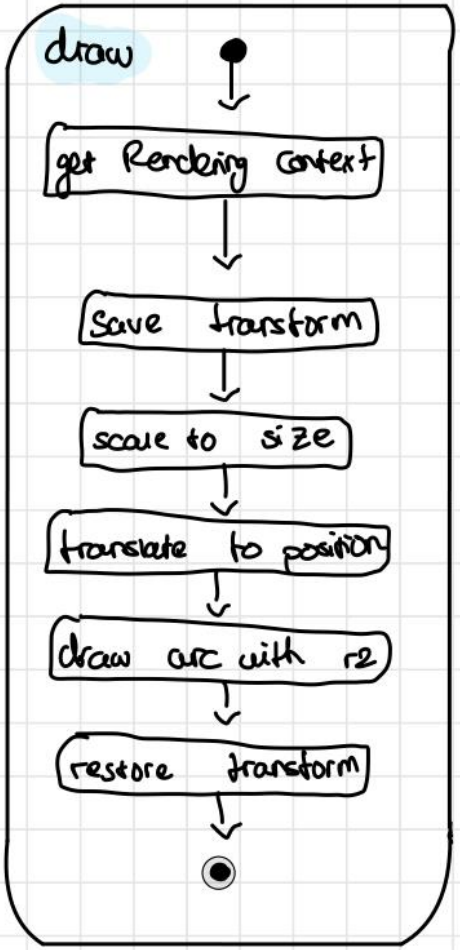
9.2 Class diagramm



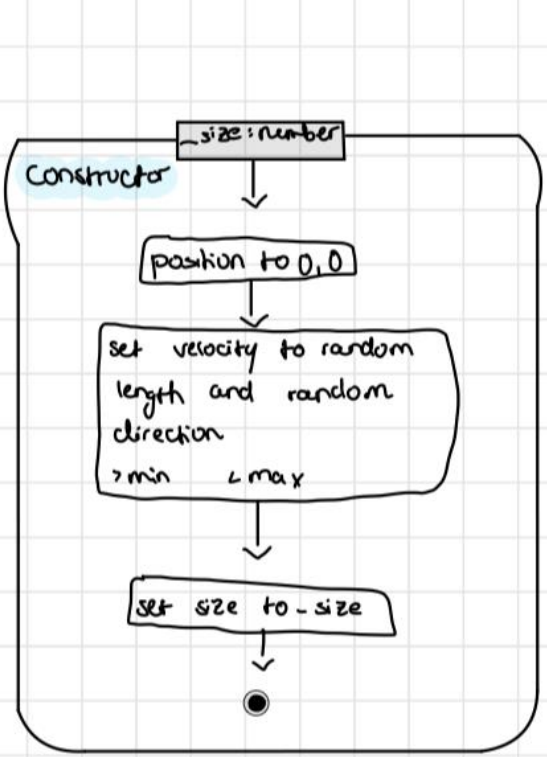
9.2 Aktivitätsdiagramm - Snowflake

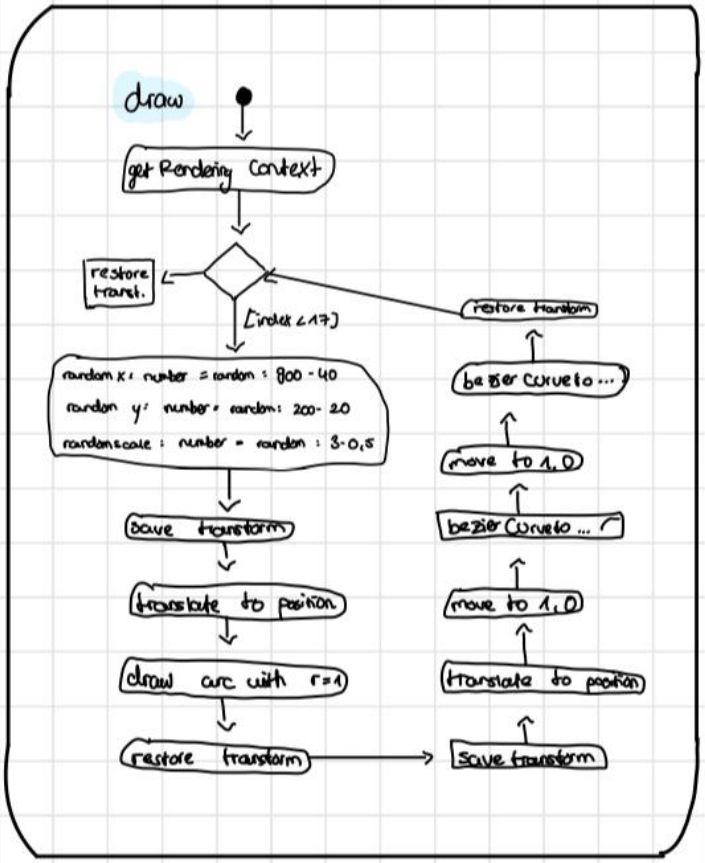


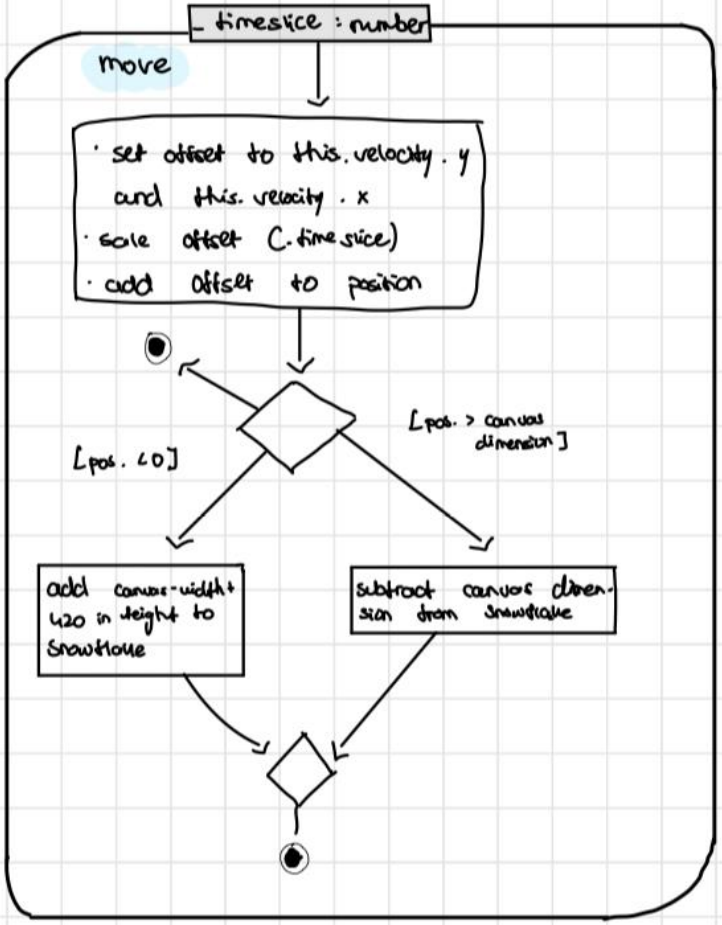




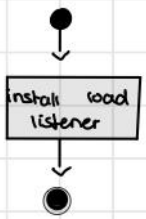
Bird

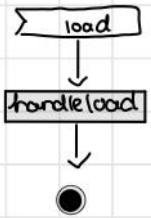

_size : number
constructor
position to 0,0
set velocity to random length and random direction
> min
< max
set size to - size


draw
get Rendering Context
restore transf.
[index < 17]
random x : number = random : 800 - 40
random y : number = random : 200 - 20
random scale : number = random : 3 - 0,5
save transform
translate to position
draw arc with r=1
restore transform
restore Random
bezier Curve to ...
move to 1,0
bezier Curve to ...
move to 1,0
translate to position
save transform

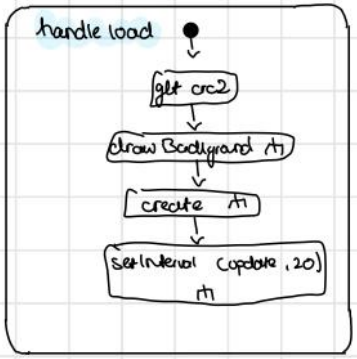

_ timeslice : number
move
· set offset to this. velocity . y and this. velocity . x
· scale offset (. timeslice)
· add offset to position
[pos. < 0]
[pos. > canvas dimension]
add canvas-width +20 in height to Snowflake
subtract canvas dimension from Snowflake

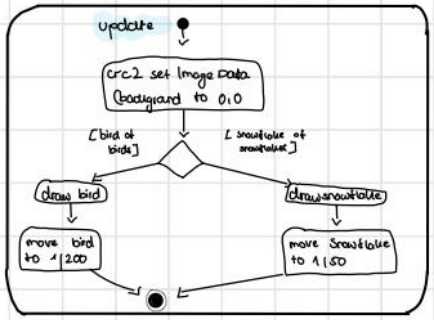
Main

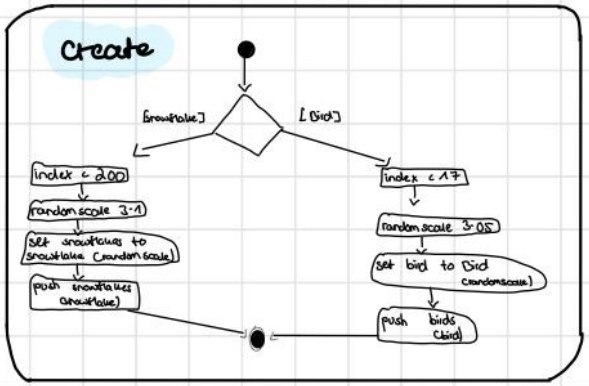


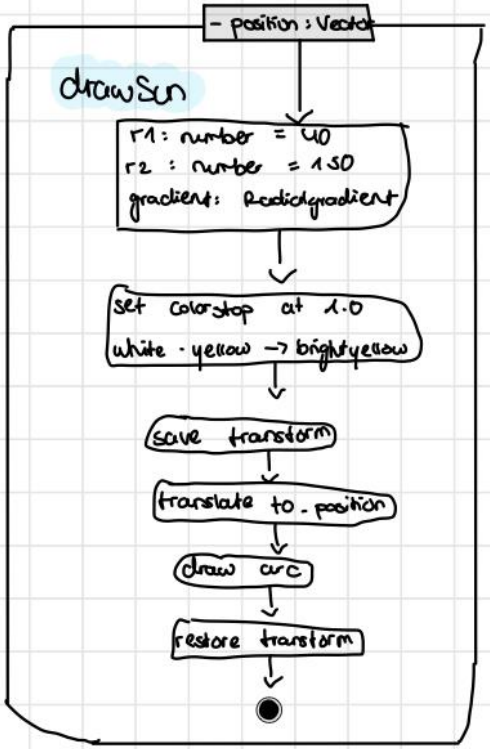


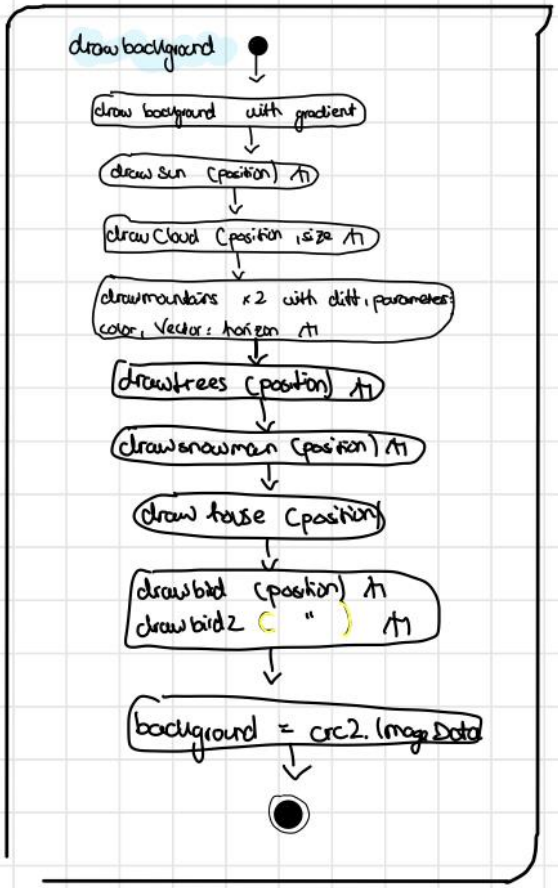
crc2
golden
x: number
y: number
background: ImageData
snowflakes: Snowflake []
birds: Bird []

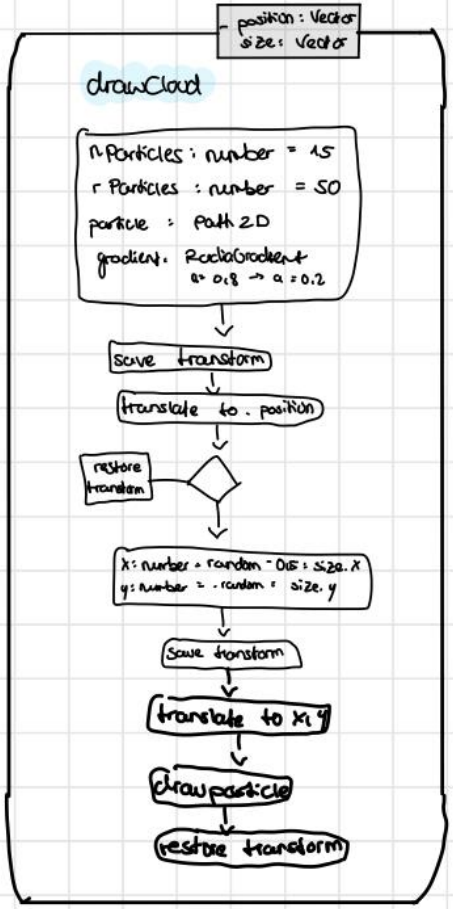


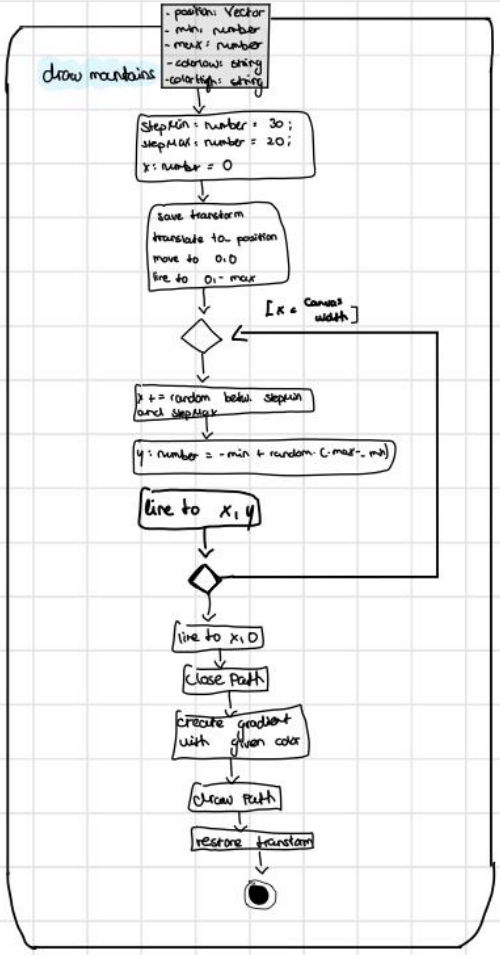


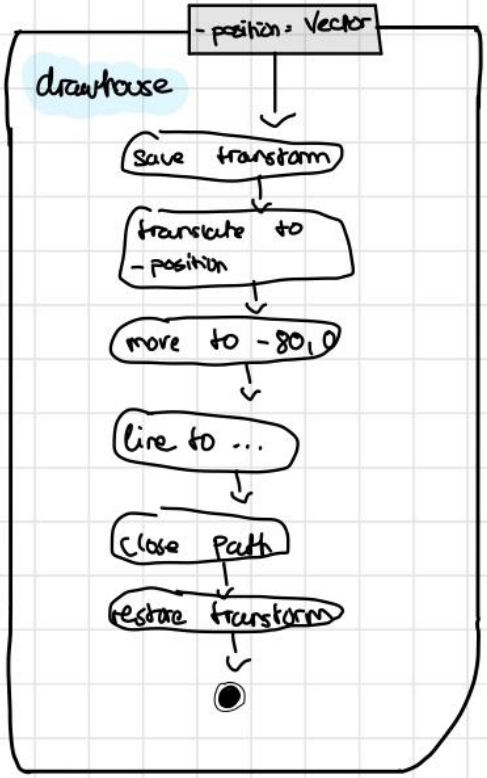


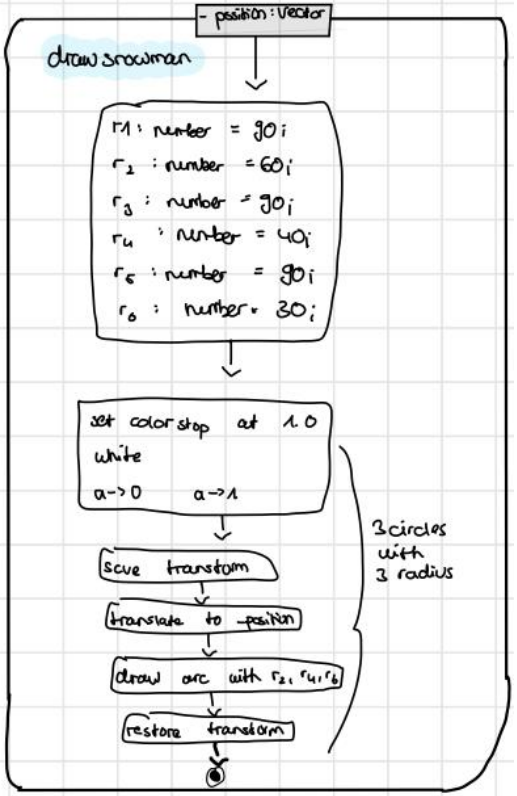




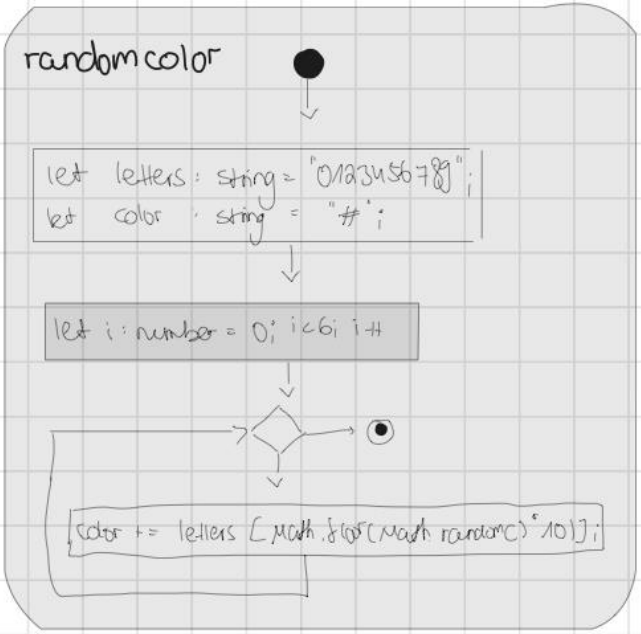

- position : Vector
size : Vector
drawCloud
nParticles : number = 15
rParticles : number = 50
particle : Path2D
gradient : RadialGradient
a: 0.8 → a: 0.2
save transform
translate to - position
restore transform
x : number = random - 0.5 * size.x
y : number = - random * size.y
save transform
translate to x, y
drawParticle
restore transform

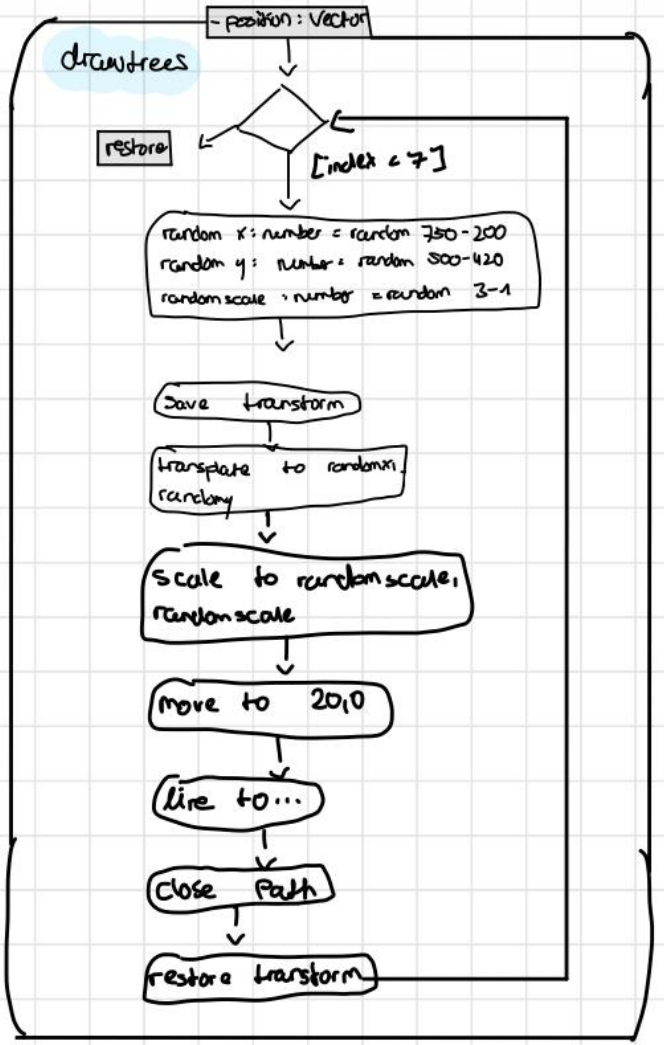

- position: Vector
- min: number
- max: number
- colorLow: string
- colorHigh: string
drawMountains
stepMin : number = 30;
stepMax : number = 20;
x : number = 0
save transform
translate to position
move to 0,0
line to 0, - max
[x < canvas width]
x += random betw. stepMin and stepMax
y : number = - min + random * (-max - min)
line to x, y
line to x, 0
close Path
create gradient with given color
draw Path
restore transform


- position : Vector
drawHouse
save transform
translate to - position
move to -80, 0
line to ...
close Path
restore transform


- position : Vector
drawSnowman
r1 : number = 90;
r2 : number = 60;
r3 : number = 90;
r4 : number = 40;
r5 : number = 90;
r6 : number = 30;
set colorstop at 1.0
white
a -> 0 a -> 1
save transform
translate to - position
draw arc with r2, r4, r6
restore transform
3 circles with 3 radius


_ position : Vector
drawbird
let index: number = 0; index < 9 ; index++
let maxWidth : number = 800;
let minWidth : number = 100;
let minHeight : number = 515;
let maxHeight : number = 530;
let positionX : number = Math.floor(Math.random() * (maxWidth - minWidth) + minWidth);
let positionY : number = Math.floor(Math.random() * (maxHeight - minHeight) + minHeight);
let radius2 number = 15;
draw bottom part of bird
crc2.fillstyle = random color();
let radius : number = 10;
draw head of bird
crc2.fillstyle = random color();
let radius3 : number = 1;
draw eye on the beard
draw beak of bird
draw leg
draw foot


randomcolor
let letters : string = "0123456789";
let color : string = "#";
let i : number = 0; i<6; i++
color += letters [Math.floor(Math.random() * 10)];


- position : Vector
drawtrees
restore
[index < 7]
random x : number = random 750 - 200
random y : number = random 500 - 420
randomscale : number = random 3 - 1
save transform
translate to random x, random y
scale to randomscale, randomscale
move to 20,0
line to ...
close Path
restore transform