
Endabgabe EIA

Feuerwerksseditor

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Hochschule: HFU Furtwangen

Semester: WiSe24/25

Studiengang: Medienkonzeption (B.A.)



IG

F

<h1>

```
<button>
  id="save"
  <hs>
```

Feuerwerk

label --- Name:

<input type="text">

speichern

label --- Rot

Feuerwerke im Speicher,

<input range>

label --- Grün

Name löschen

<input range>

label --- Blau

<input range>

<div id="color"> Farbe

label --- Partikelanzahl

<input range>

label --- Geschwindigkeit

<input range>

label --- Größe

<input range>

label --- Ausbreitung

<input range>

label ---

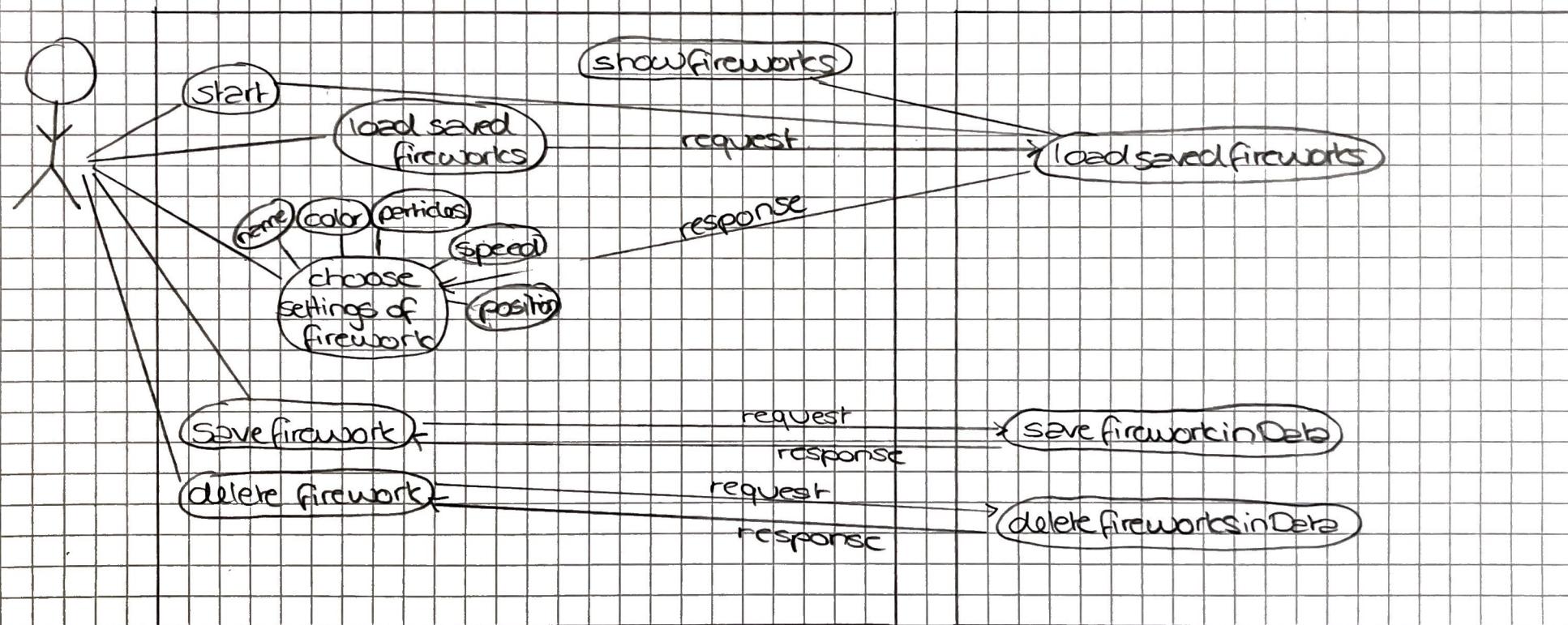
<input range>

UI Scribble

```
<span>
  class="Name"
  class="load"
  class="delete"
```

<canvas>

Use Case Diagram



class Diagramm

Firework

particles: Particle
createdParticles: boolean
particleConfig: particleConfig
counter: number
crc2: CanvasRenderingContext2D
color: string
number of particles: number
position: Vector
speed: number

constructor (config: FireworkConfig,
particleConfig: ParticleConfig)

draw()
update()

→ Vector

x:
y: number

constructor (x, -y)
set (-x, -y)
scale (factor: number)
add (-addend: vector)
random (-minLength: number,
maxLength: number)
copy (): vector

← Particle

alive: boolean
lifetime: number
position: vector
velocity: vector
crc2: CanvasRenderingContext2D
color: string
size: number

constructor (config: ParticleConfig,
position: vector,
startVelocity: vector)

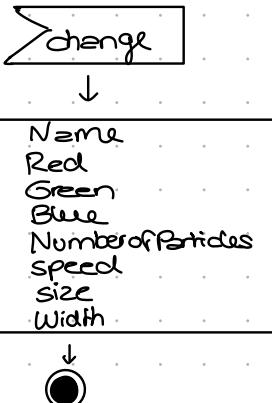
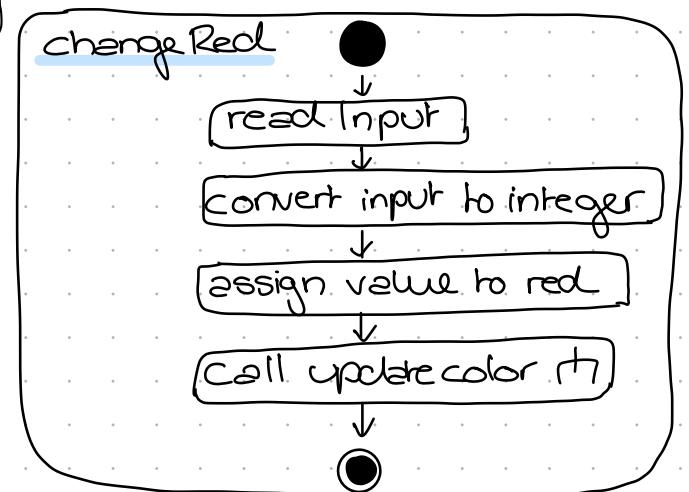
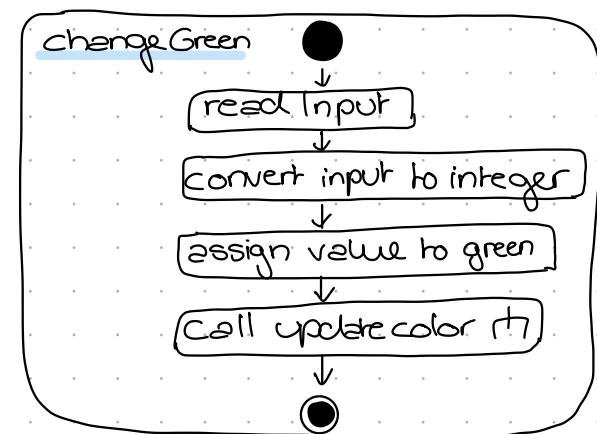
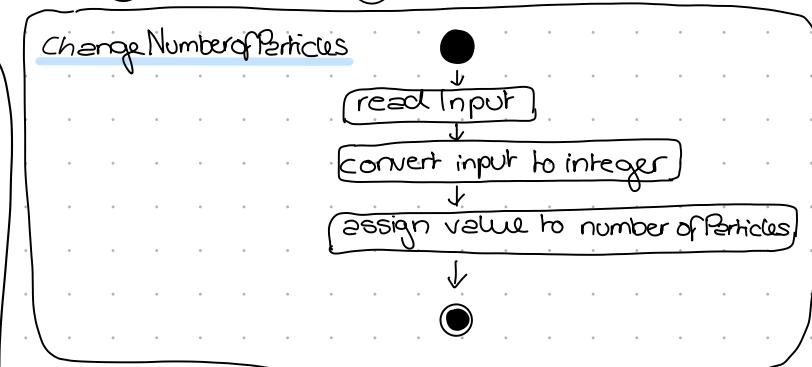
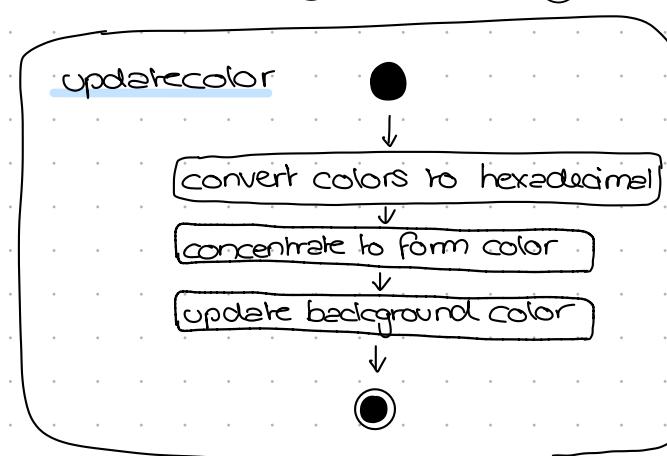
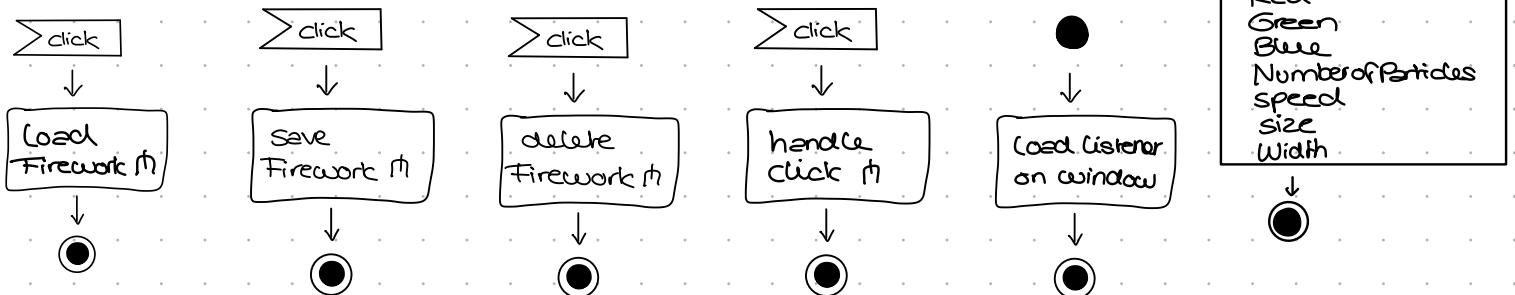
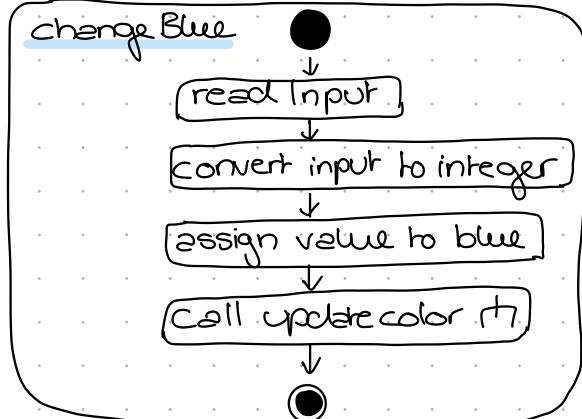
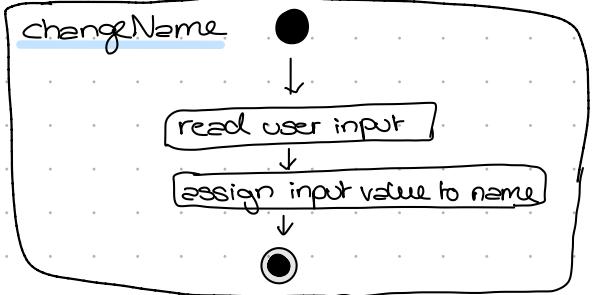
update()
draw()

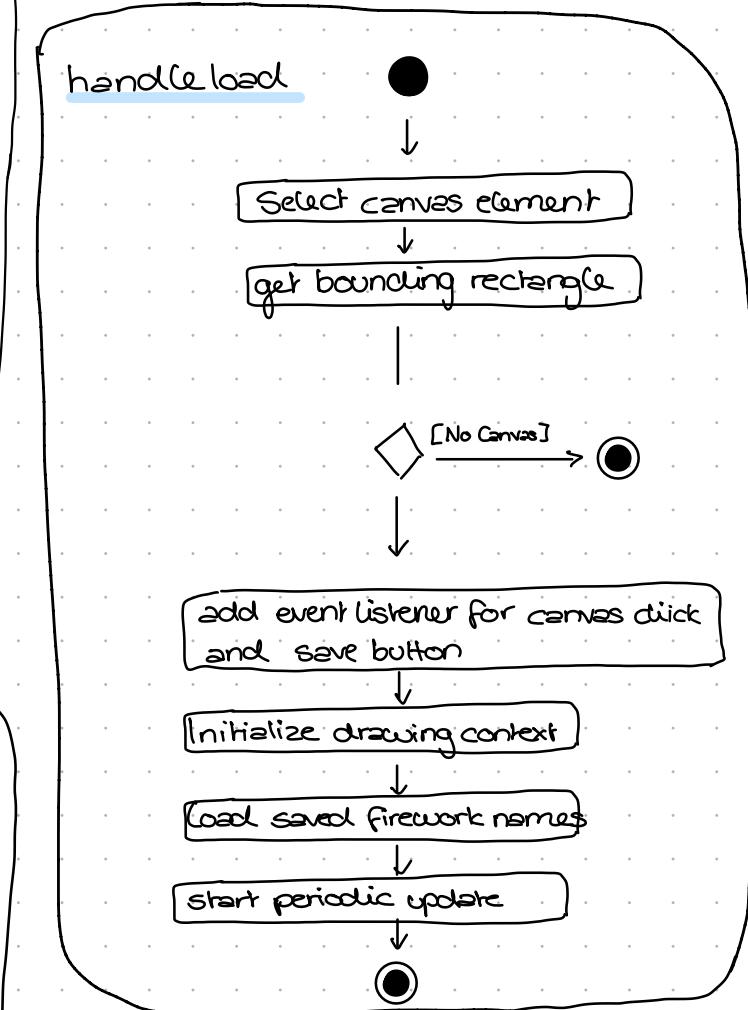
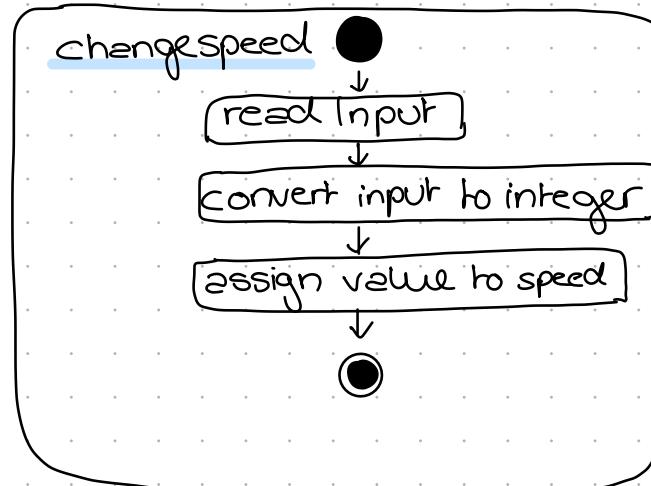
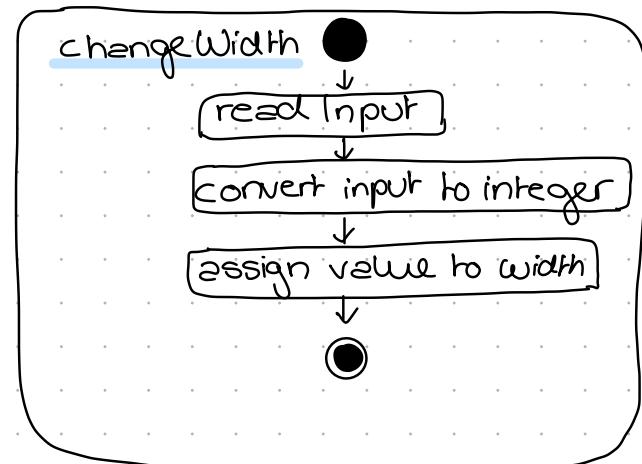
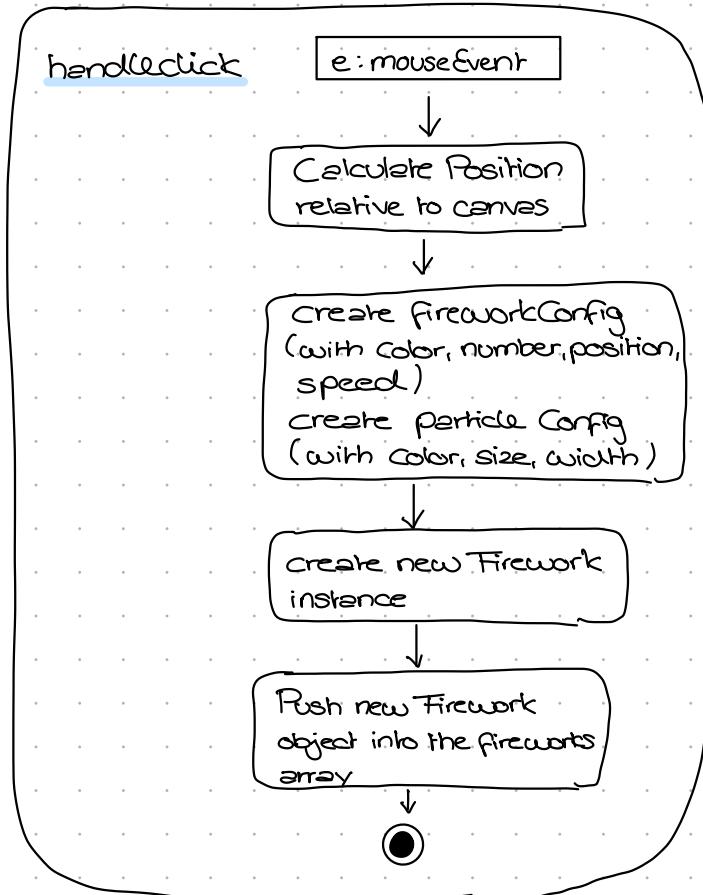
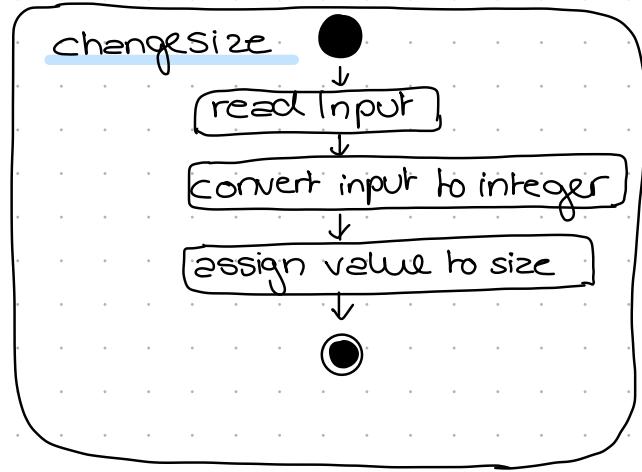
Activity Diagram

Main

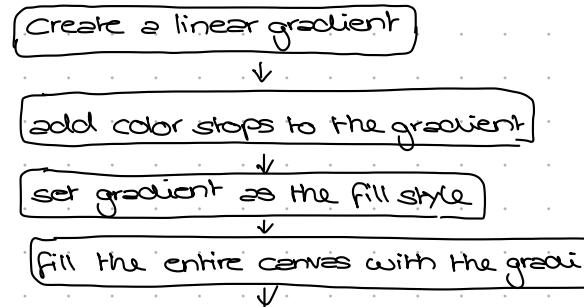
```

> load
    handle load()
    ↓
    let canvas : HTMLCanvasElement;
    let crc2 : CanvasRenderingContext2D;
    let fireworks: Firework [] = [];
    let rect : DOMRect;
    let name : string = "Mein Feuerwerk";
    let color: string = "ff0000";
    let red: number = 255;
    let green: number = 0;
    let blue: number = 0;
    let numberOfParticles: number = 50;
    let speed: number = 5;
    let size: number = 1;
    let width: number = 0;
  
```





drawBackground

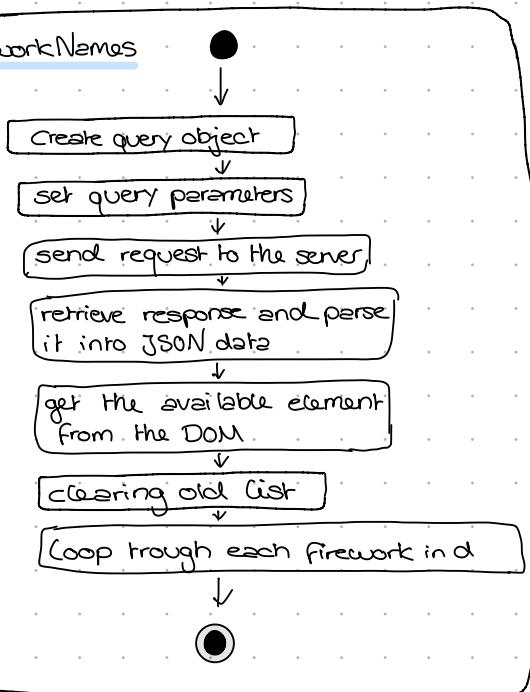


interface SaveConfig

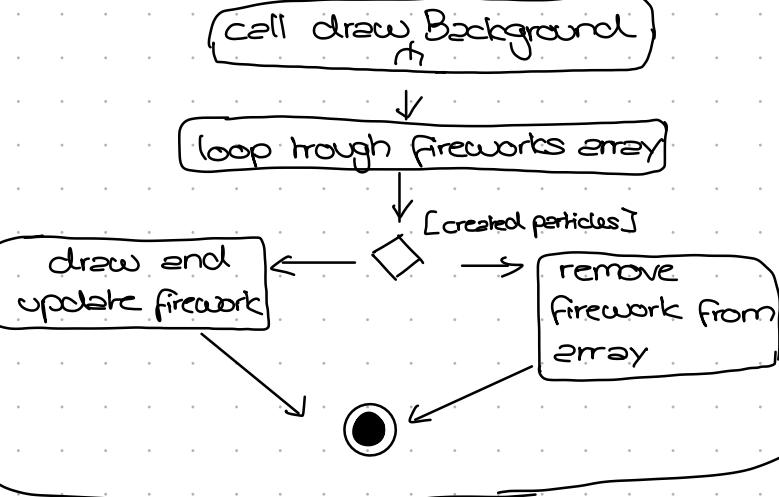
```

name: string;
color: string;
red: number;
green: number;
blue: number;
numberofParticles: number;
Speed: number;
size: number;
width: number;
  
```

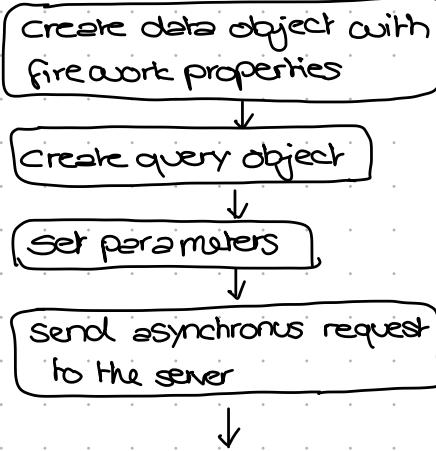
loadFireworkNames



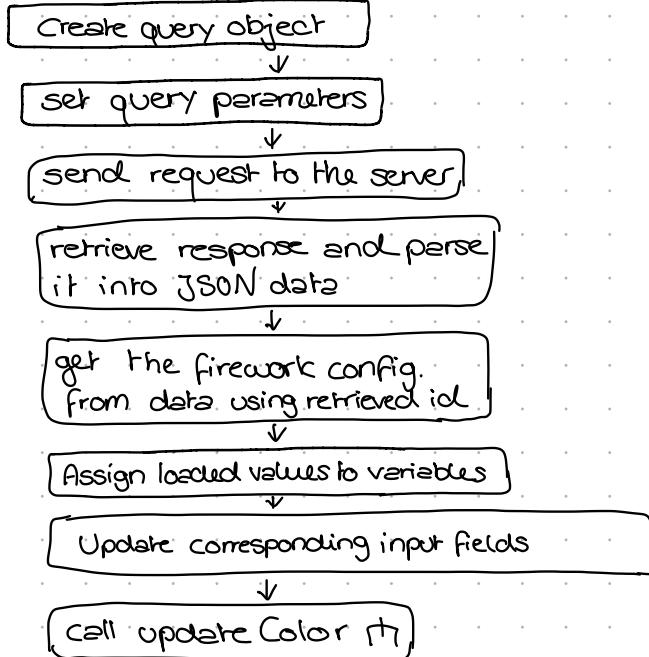
update



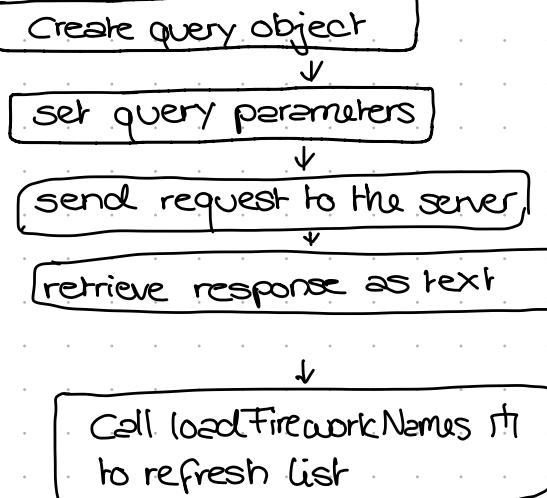
Save Firework



load Firework

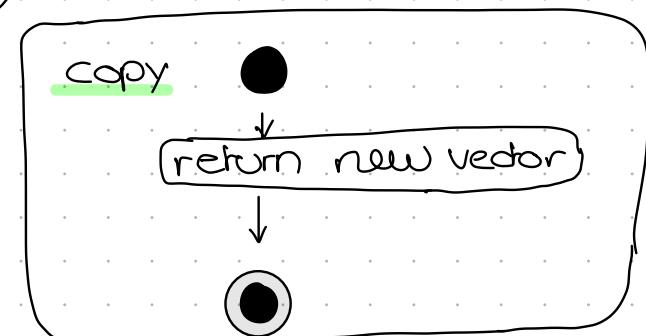
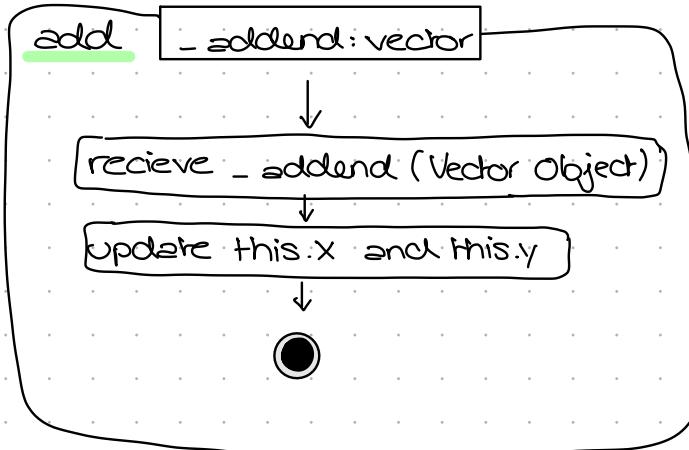
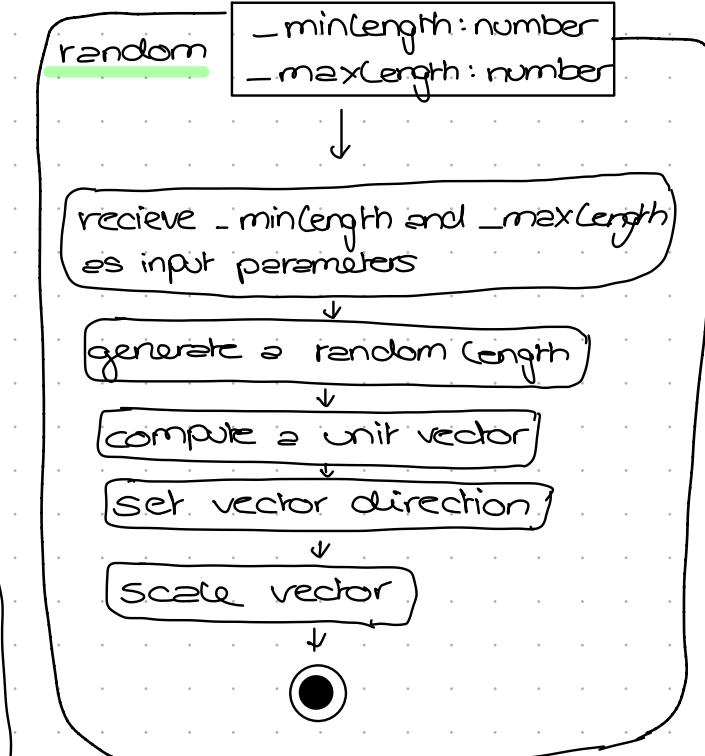
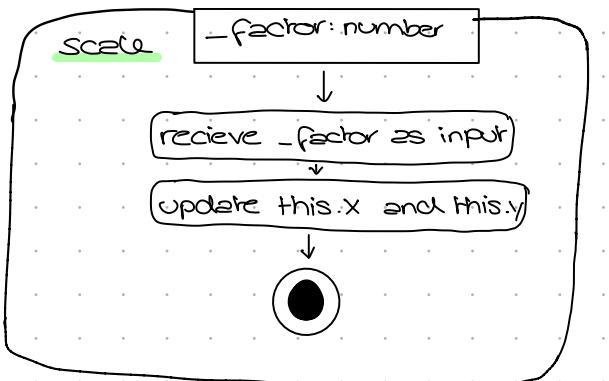
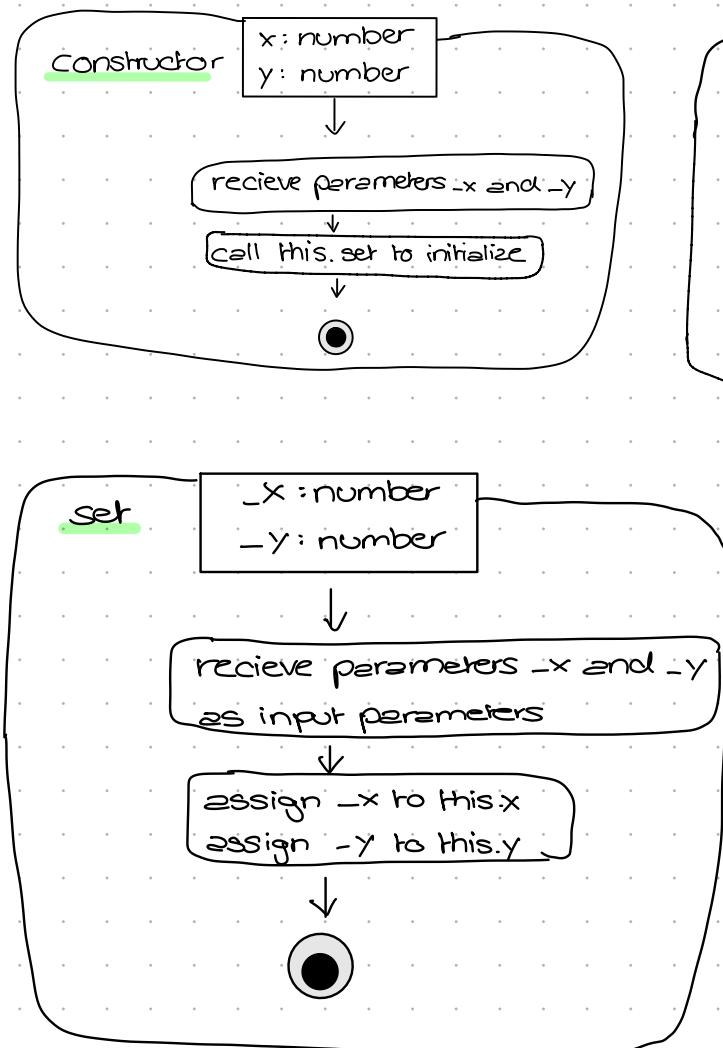


delete Firework



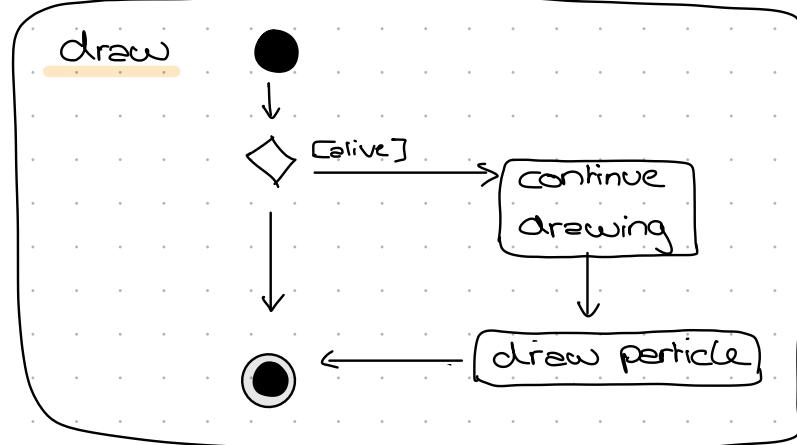
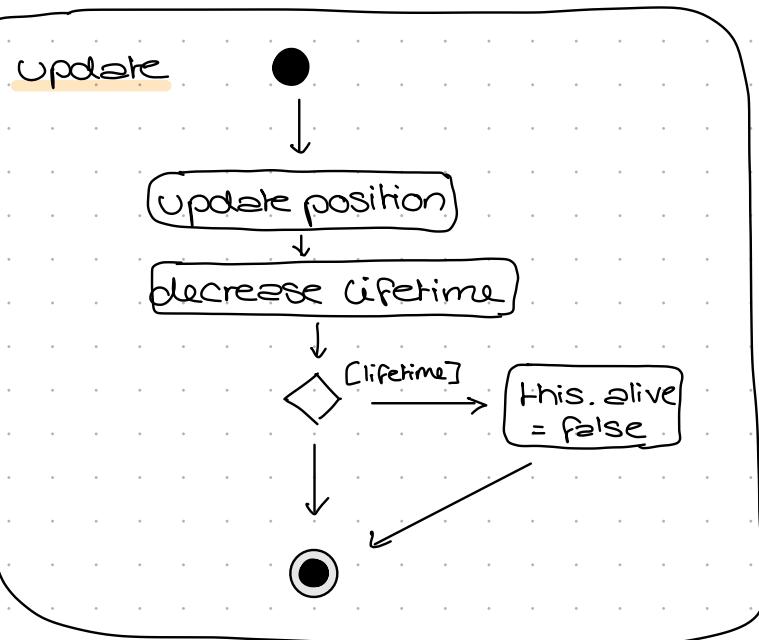
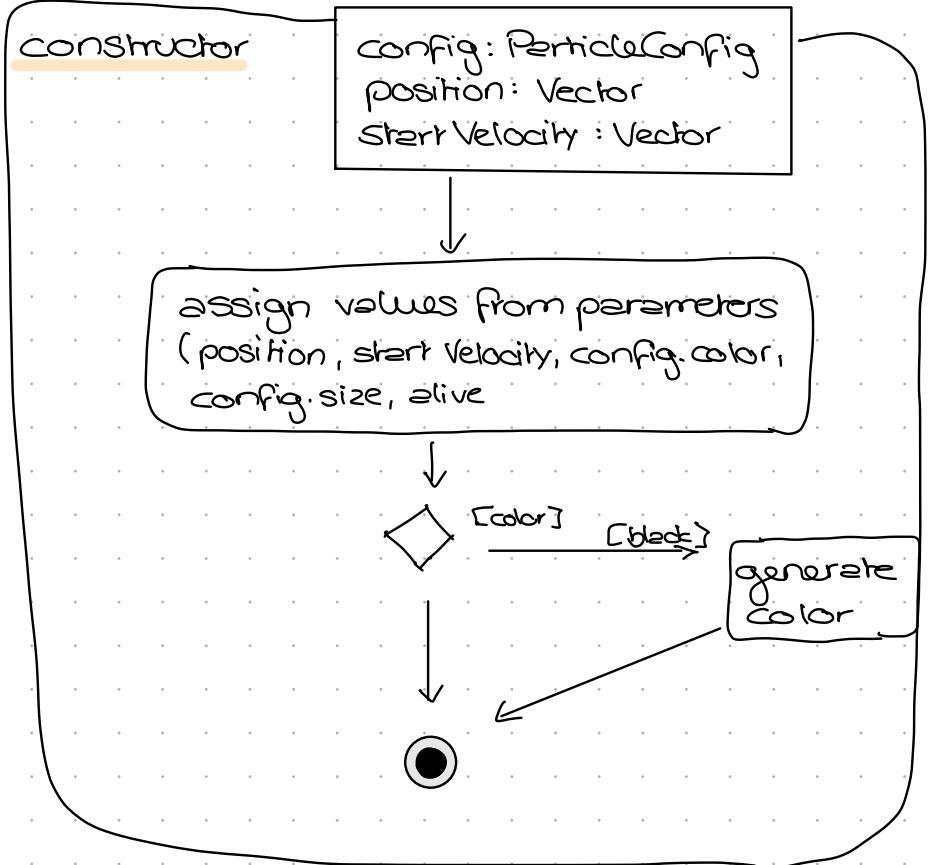
Activity Diagram

Vector



Activity Diagram

Particle



Activity Diagram

Firework

