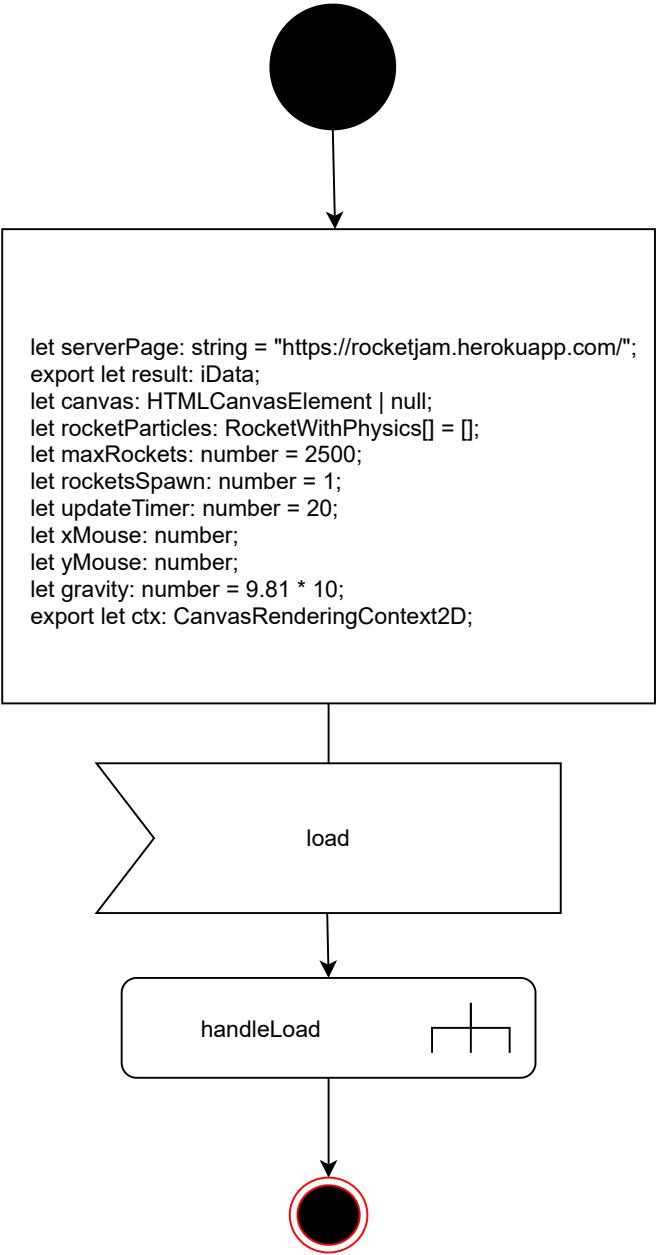
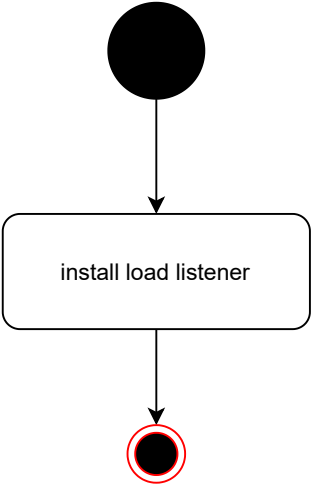


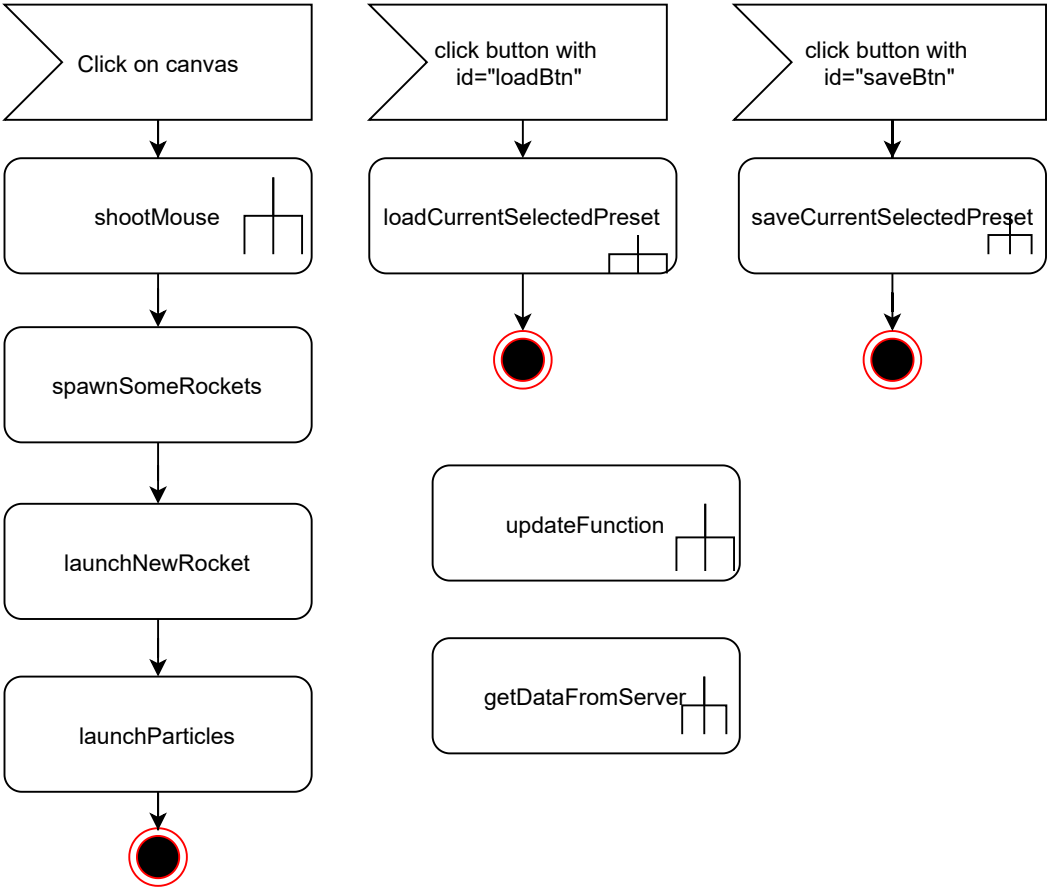
Main Activity Diagram

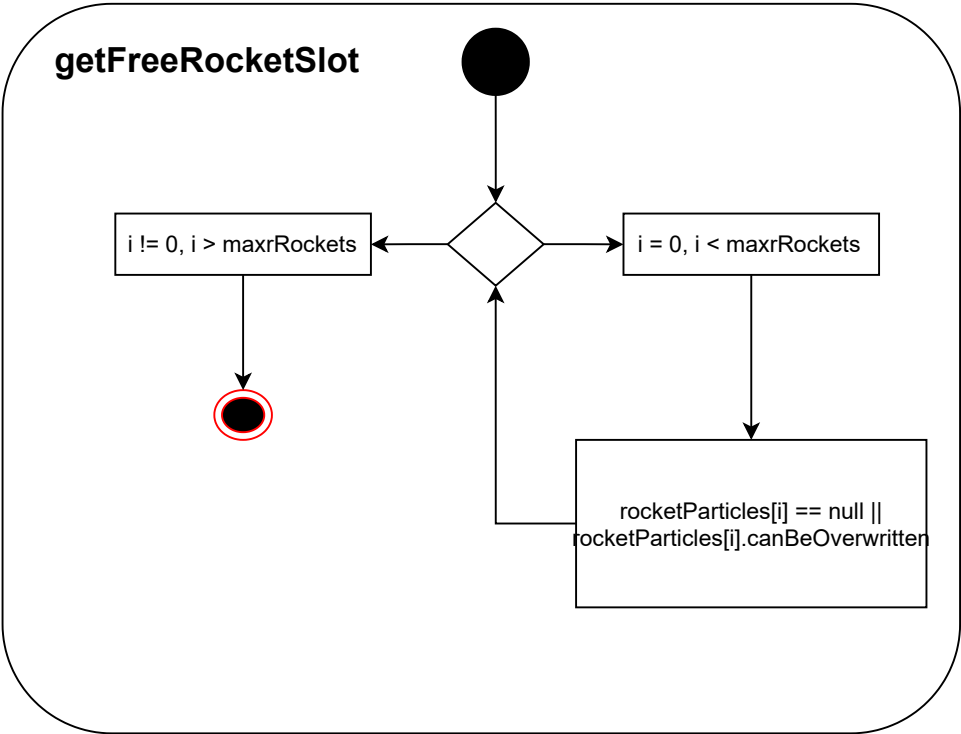
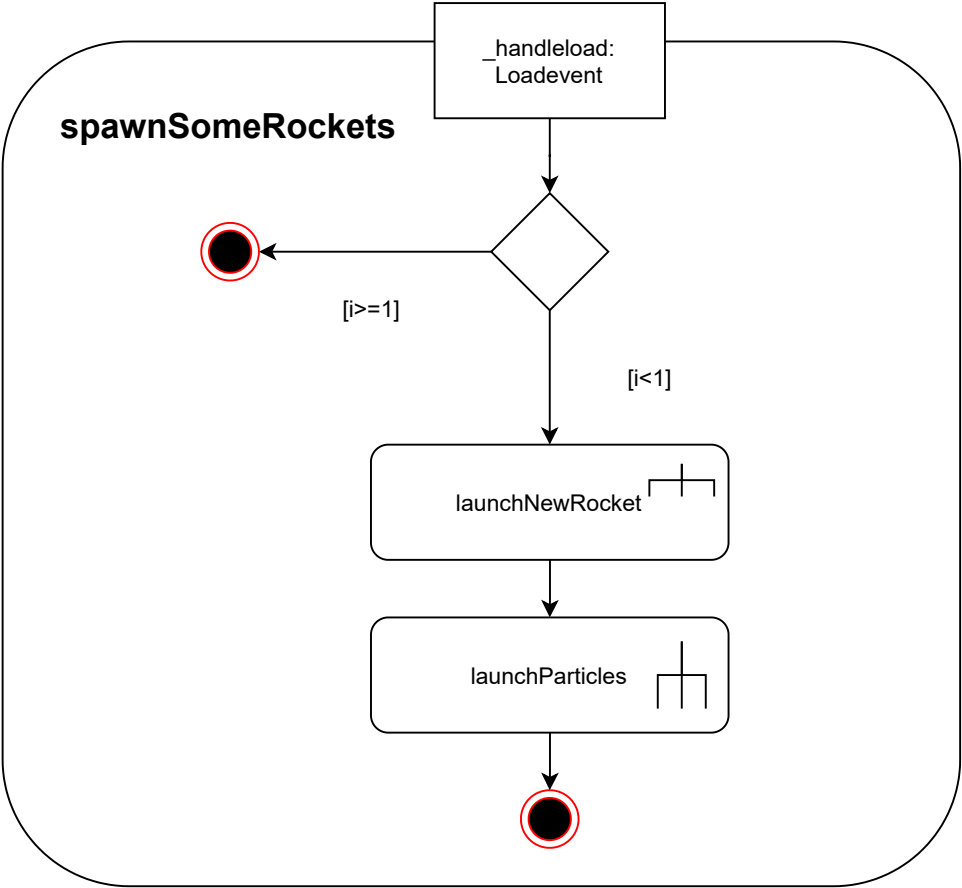
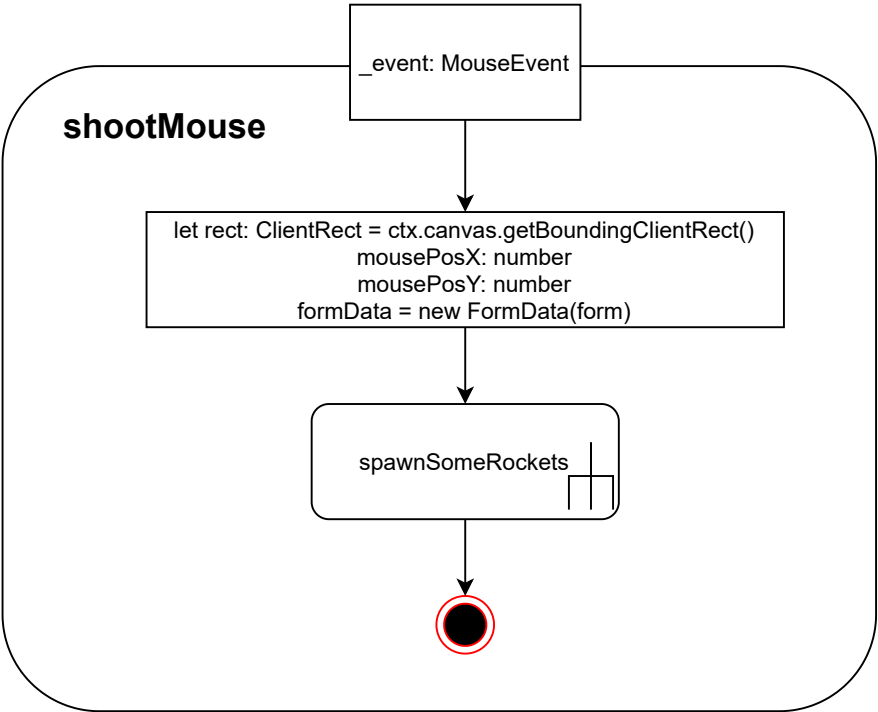


Main Activity Diagram

handleLoad

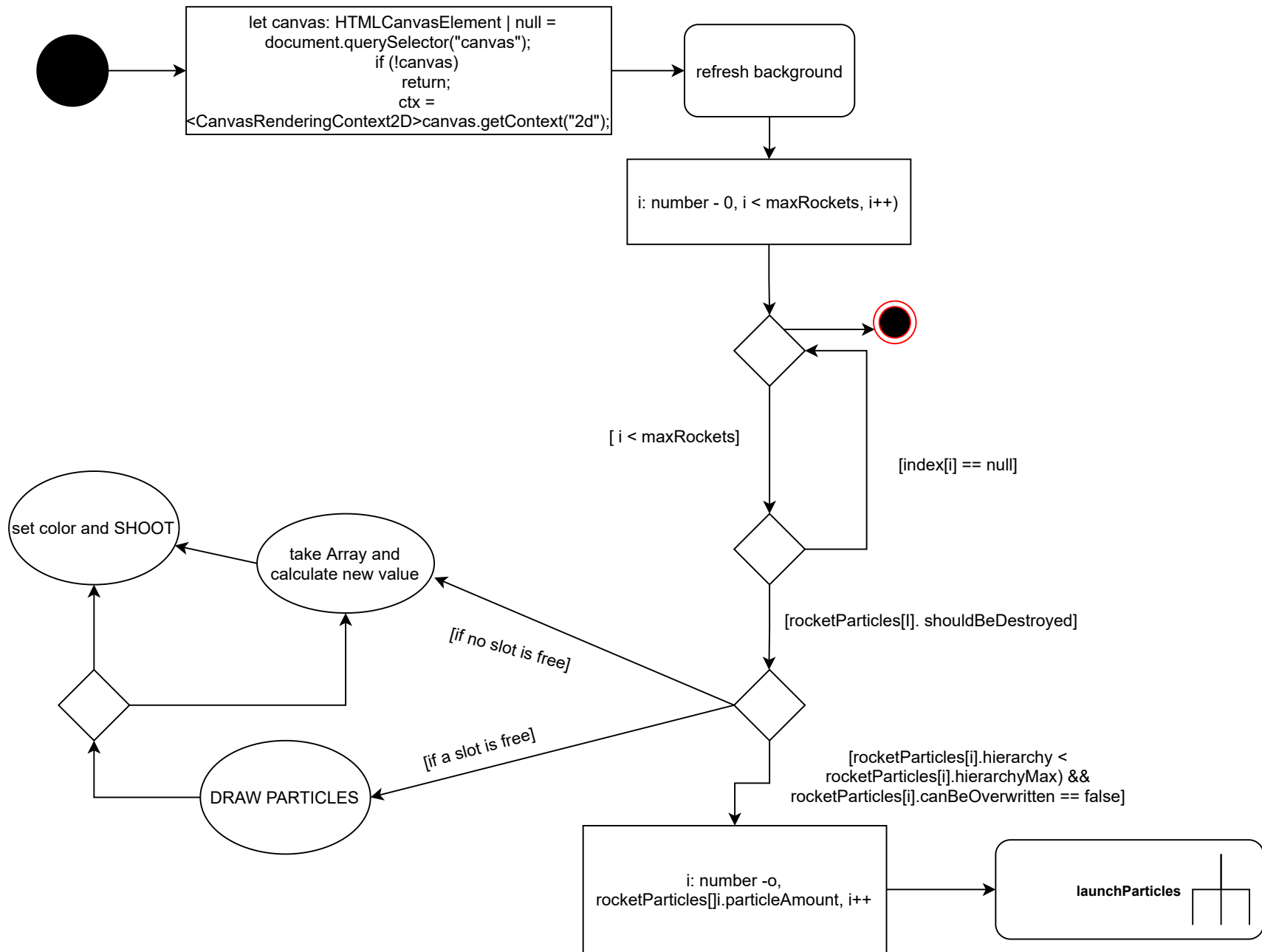
```
canvas = document.querySelector("canvas"); if (!canvas) return; canvas.width = screen.width; canvas.height = screen.height; console.log(maxRockets); rocketParticles.length = maxRockets; ctx = canvas.getContext("2d"); ctx.beginPath(); ctx.fillStyle = "#000000"; ctx.fillRect(0, 0, ctx.canvas.width, ctx.canvas.height); ctx.stroke();
```





update

HEARTH OF THE
CODE



launchNewRocket

```
let canvas: HTMLCanvasElement | null = document.querySelector("canvas");
if (!canvas)
  return;

ctx = <CanvasRenderingContext2D>canvas.getContext("2d");

let colorStart: string = String(new FormData(document.forms[1]).get("startColor"));
let colorEnd: string = String(new FormData(document.forms[1]).get("endColor"));
let lifetime: number = Number(new FormData(document.forms[1]).get("lifetime")); // standard
0.05 + 0.025
console.log(new FormData(document.forms[1]).get("lifetime"));
console.log(lifetime);

let radius: number = Number(new FormData(document.forms[1]).get("particleRadius"));
console.log(radius);

let size: number = Number(new FormData(document.forms[1]).get("particleSize"));
let particleAmount: number = Number(new FormData(document.forms[1]).get("spawnAmount"));
console.log(size);

let hierarchyMax: number = Number(new FormData(document.forms[1]).get("explosionTimes"));
console.log(hierarchyMax);

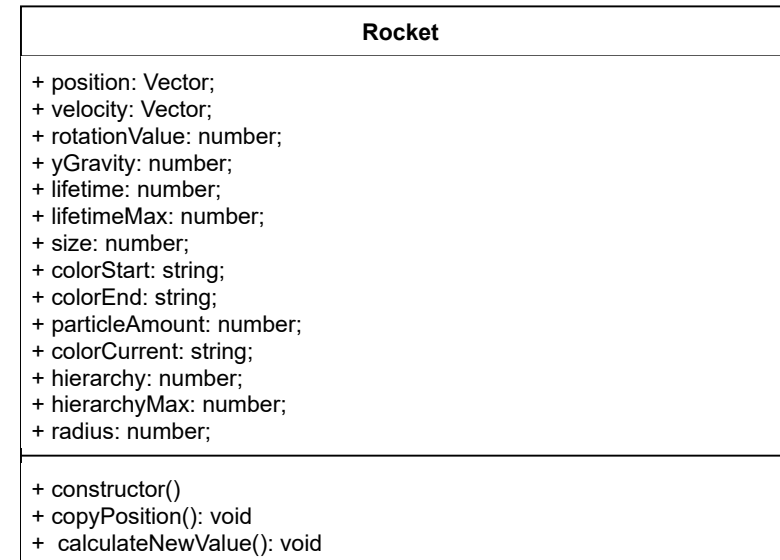
let spawnIndex: number = getFreeRocketSlot();
```



[spawnIndex == -1 || canvas == null]

[spawnIndex < -1 || canvas != null]

```
let newRocket: RocketWithPhysics;
let pos: Vector = new Vector(canvas.width / 2, canvas.height);
let vel: Vector = new Vector((xMouse - pos.x) / updateTimer / 5 * 4,
Math.sqrt((canvas.height - yMouse) / (gravity / 2) * updateTimer) * -3.15);
```



```
newRocket = new RocketWithPhysics(pos, vel, gravity, lifetime, size,
colorStart, colorEnd, particleAmount, 0, hierarchyMax, radius);
rocketParticles[spawnIndex] = newRocket;
```

