Period: 3
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Group name: citrus
Project title: Jump
Project description:
Player controls an object on a platform. The next platform is a certain distance away from the current one. The longer the player holds down the farther the object jumps. The goal is to reach the maximum number of platforms without dying.
Current functionalities:
- Draw current and next platform
- Object jumps in a parabolic path
- The longer the player holds the farther object jumps
- Object stops on platform
- New platforms spawn when the object reaches the newest platform.

Functionalities to be done by next meeting:
- Score System
- Title, menu and death screen

Problems encountered:
- Different animations for different situations.
  Solution: Making a switch in the draw method and assigning a number to each situation.
- Calculating edge of platform to determine when the object should stop or not.
  Solution: used using the object's current x position and linear equation of the edge.

UML Diagram:

Main

+ p: Platform[]
+ o: Object
+ pt: Particles
+ s = -1
+ c: color
+ k: int

+ oldp: Platform
+ dir: int
+ currentp: Platform
+ formerp: Platform
+ newp: Platform
+ n: int
+ dx1: float
+ dy1: float

+ counter: float
+ t0: float

+ setup(): void
+ draw(): void
+ drawAll(): void
+ drawP(): void

+ newP(): void
+ newP(int dir): void
+ moveCamera(): void
+ calcDistance(): void
+ updateXY(float dx, float dy): void
+ isOn(): boolean

+ copyP(): void
+ removeP(): void
+ keyPressed(): void
+ keyReleased(): void

2..*

1

1

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Platform

+ x: float
+ y: float
+ l: float
+ h: float
+ dir: int
+ d: int
+ angle: float
+ currentH: int

+ newXY(): void
+ platform(): void
+ rise(): boolean

Object

+ x: float
+ y: float
+ d: int
+ x0: int
+ y0: int
+ t: float
+ v: float
+ angle: float
+ g: float
+ vx: float
+ vy: float

+ object(): void
+ launchUpdate(float t0, int dir): void
+ isOn(float xf, float yf): boolean

Particles

+ a: Particle
+ b: Particle
+ c: Particle
+ d: Particle
+ e: Particle

+ particles(): void

Particle

+ x: float
+ y: float
+ v: float
+ dir: float
+ d: float
+ size: float
+ range: int
+ x0: int
+ y0: int

+ create(): void
+ update(): Particle