

/*

Terry Shvartsman
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Professor Zitolo
Computational Physics

Game Project

Note: Lines 54 and 59 were taken from The Coding Train's "Loading and Playing" Music
YouTube Video

*/

//Controlled Circle

let x1 = 500;
let y1 = 500;
let d1 = 50;
let deltaX1 = 0;
let deltaY1 = 0;

//Objective Circle

let x2 = 300;
let y2 = 300;
let d2 = 50;

let score = 0;

let state = 0;

let font1;
let font2;

let GJ; // Good-Job Winning Picture

let song1; //Music

```
function preload() {  
  song1 = loadSound("Undertale.mp3");  
}
```

```
function setup() {  
  createCanvas(1000, 1000);  
  GJ = loadImage("GJ.jpeg");  
  
  font1 = loadFont("sans.ttf");  
  font2 = loadFont("Arial.ttf");  
  
  song1.loop();  
  
  slider = createSlider(0, 1, 0.5, 0.01);  
}
```

```
function draw() {  
  song1.setVolume(slider.value());  
  
  strokeWeight(5);  
  background(220);  
  
  //Default State  
  if (state == 0) {  
  
    //Black Ellipse  
    x1 = deltaX1 + x1;  
    y1 = deltaY1 + y1;  
    fill(2, 0, 0);  
    ellipse(x1, y1, d1, d1);  
  
    //Red Ellipse  
    fill(180, 50, 50);  
    ellipse(x2, y2, d2, d2);  
  
  
  
  
  
  
  
  
  
    //Interception Function  
    if (x1 > x2 - 40 && y1 > y2 - 40 && y1 < y2 + 40 && x1 < x2 + 40) {  
      x2 = random(25, 975);  
      y2 = random(25, 975);  
      score = score + 1;  
    }  
  }  
}
```

```
}  
}
```

```
//Reset Function (and State function)
```

```
if (x1 < 0 || x1 > 1000) {  
  x1 = 500;  
  deltaX1 = 0;  
  state = 1;  
}
```

```
if (y1 < 0 || y1 > 1000) {  
  y1 = 500;  
  deltaY1 = 0;  
  state = 1;  
}
```

```
//State = 1 function - Lost State
```

```
if (state == 1) {  
  background(241, 179, 81);  
  fill(255);  
  textSize(100);  
  textFont(font1);  
  textAlign(CENTER);  
  text("Game Over!", 500, 425);  
  textSize(30);  
  text("Press Enter to Play Again.", 500, 575);  
  deltaX1 = 0;  
  deltaY1 = 0;
```

//I added this deltaX1 and deltaY1 because occasionally, the circle would begin moving upon clicking (before officially starting the round)

```
score = 0;
```

```
x2 = random(25, 975);  
y2 = random(25, 975);
```

```
song1.stop();  
}
```

```
if (score == 50) {
```

```

    state = 2;
}
// Defining State = 2 - Won State
if (state == 2) {
    background(255, 255);

    strokeWeight(10)
    fill(0, 255, 0);
    rect(375, 925, 100, 50);
    rect(500, 925, 100, 50);
    fill(0);
    text("yes.", 425, 956);
    text("yes!", 550, 956);

    image(GJ, 200, 100, 600, 450);
    fill(0)
    text("You've Reached the Maximum Score!", 500, 800);
    text("Play Again?", 500, 900);
    strokeWeight(5);

    song1.stop();
}

//Defining the Color of the Background and Text for Every "Level"

if (score < 10) {
    background(0, 255, 0, 20);
    text("Level 1", 500, 75);
    fill(0);

    //Instructions
    textSize(20);
    fill(0);
    textFont(font1);
    textAlign(CENTER);
    text("Click W for Up", 73, 35);
    text("Click A for Left", 73, 55);
    text("Click S for Down", 73, 75);
    text("Click D for Right", 73, 95);

    //score
    text("Reach 50 Points to Win", 855, 35);
    textSize(32);
    textFont(font2);

```

```
text("Score:" + " " + score + " " + "points", 500, 30);  
}
```

```
if (score < 20 && score >= 10) {  
    background(255, 255, 0, 70);  
    text("Level 2", 500, 75);  
    fill(0);
```

```
    //Instructions  
    textSize(20);  
    fill(0);  
    textFont(font1);  
    textAlign(CENTER);  
    text("Click W for Up", 73, 35);  
    text("Click A for Left", 73, 55);  
    text("Click S for Down", 73, 75);  
    text("Click D for Right", 73, 95);
```

```
    //score  
    text("Reach 50 Points to Win", 855, 35);  
    textSize(32);  
    textFont(font2);  
    text("Score:" + " " + score + " " + "points", 500, 30);  
}
```

```
if (score < 30 && score >= 20) {  
    background(255, 170, 10, 140);  
    text("Level 3", 500, 75);  
    fill(0);
```

```
    //Instructions  
    textSize(20);  
    fill(0);  
    textFont(font1);  
    textAlign(CENTER);  
    text("Click W for Up", 73, 35);  
    text("Click A for Left", 73, 55);  
    text("Click S for Down", 73, 75);  
    text("Click D for Right", 73, 95);
```

```
    //score  
    text("Reach 50 Points to Win", 855, 35);
```

```
    textSize(32);
    textFont(font2);
    text("Score:" + " " + score + " " + "points", 500, 30);
}
```

```
if (score < 40 && score >= 30) {
    background(237, 0, 80, 110);
    text("Level 4", 500, 75);
    fill(0);
```

```
    //Instructions
    textSize(20);
    fill(0);
    textFont(font1);
    textAlign(CENTER);
    text("Click W for Up", 73, 35);
    text("Click A for Left", 73, 55);
    text("Click S for Down", 73, 75);
    text("Click D for Right", 73, 95);
```

```
    //score
    text("Reach 50 Points to Win", 855, 35);
    textSize(32);
    textFont(font2);
    text("Score:" + " " + score + " " + "points", 500, 30);
}
```

```
if (score < 50 && score >= 40) {
    background(255, 99, 71, 190);
    text("Level 5; Final Level!", 500, 75);
    fill(0);
```

```
    //Instructions
    textSize(20);
    fill(0);
    textFont(font1);
    textAlign(CENTER);
    text("Click W for Up", 73, 35);
    text("Click A for Left", 73, 55);
    text("Click S for Down", 73, 75);
    text("Click D for Right", 73, 95);
```

```

//score
text("Reach 50 Points to Win", 855, 35);
textSize(32);
textFont(font2);
text("Score:" + " " + score + " " + "points", 500, 30);
}

//Text Above Music Volume Slider
textSize(20);
textFont(font2);
text("Music Volume", 63, 995);
textSize(32);

}

//Button Click To Restart Game Once Won
function mousePressed() {
  if (state == 2 && mouseX > 375 && mouseX < 475 && mouseY > 925 && mouseY < 975) {
    state = 0;
    score = 0;
    deltaX1 = 0;
    deltaY1 = 0;
    song1.loop();
  }

  if (state == 2 && mouseX > 500 && mouseX < 600 && mouseY > 925 && mouseY < 975) {
    state = 0;
    score = 0;
    deltaX1 = 0;
    deltaY1 = 0;
    song1.loop();
  }

}

//Restarts Game Once Lost

function keyPressed() {
  if (state == 1 && keyCode === ENTER) {
    state = 0;

```

```
    song1.loop();  
}
```

//Key Movement Function (Increasing Speed Every 10 Points)

```
if (score < 10) {
```

```
    if (key == 'd') {  
        deltaX1 = 4;  
        deltaY1 = 0;  
    }
```

```
    if (key == 'a') {  
        deltaX1 = -4;  
        deltaY1 = 0;  
    }
```

```
    if (key == 'w') {  
        deltaY1 = -4;  
        deltaX1 = 0;  
    }
```

```
    if (key == 's') {  
        deltaY1 = 4;  
        deltaX1 = 0;  
    }
```

```
}
```

```
if (score >= 10 && score < 20) {
```

```
    if (key == 'd') {  
        deltaX1 = 6;  
        deltaY1 = 0;  
    }
```

```
    if (key == 'a') {  
        deltaX1 = -6;  
        deltaY1 = 0;  
    }
```

```
    if (key == 'w') {  
        deltaY1 = -6;  
        deltaX1 = 0;  
    }
```

```
    if (key == 's') {  
        deltaY1 = 6;
```



```
    deltaX1 = 0;
}

}

if (score >= 20 && score < 30) {

    if (key == 'd') {
        deltaX1 = 8;
        deltaY1 = 0;
    }
    if (key == 'a') {
        deltaX1 = -8;
        deltaY1 = 0;
    }
    if (key == 'w') {
        deltaY1 = -8;
        deltaX1 = 0;
    }
    if (key == 's') {
        deltaY1 = 8;
        deltaX1 = 0;
    }
}

}

if (score >= 30 && score < 40) {

    if (key == 'd') {
        deltaX1 = 10;
        deltaY1 = 0;
    }
    if (key == 'a') {
        deltaX1 = -10;
        deltaY1 = 0;
    }
    if (key == 'w') {
        deltaY1 = -10;
        deltaX1 = 0;
    }
    if (key == 's') {
        deltaY1 = 10;
        deltaX1 = 0;
    }
}
```

```
}  
  
if (score >= 40 && score < 50) {  
  
    if (key == 'd') {  
        deltaX1 = 12;  
        deltaY1 = 0;  
    }  
    if (key == 'a') {  
        deltaX1 = -12;  
        deltaY1 = 0;  
    }  
    if (key == 'w') {  
        deltaY1 = -12;  
        deltaX1 = 0;  
    }  
    if (key == 's') {  
        deltaY1 = 12;  
        deltaX1 = 0;  
    }  
  
}  
}
```