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var score = 0,
    gscore = 0,
    ghost = false;
var player = {
    x: 50,
    y: 100,
    pacmouth: 320,
    pacdir: 0,
    psize: 32,
    speed: 5
}
var enemy = {
    x: 150,
    y: 200,
    speed: 5,
    moving: 0,
    dirx: 0,
    diry: 0,
    flash: 0,
    ghosteat: false
}
var powerdot = {
    x: 10,
    y: 10,
    powerup: false,
    pcountdown: 0,
    ghostNum: 0
}
var canvas = document.createElement("canvas");
var context = canvas.getContext("2d");
document.body.appendChild(canvas);
canvas.width = 600;
canvas.height = 400;

mainImage = new Image();
mainImage.ready = false;
mainImage.onload = checkReady;
mainImage.src = "pac.png";

var keyclick = {};
document.addEventListener("keydown", function (event) {
    keyclick[event.keyCode] = true;
    move(keyclick);
}, false);
document.addEventListener("keyup", function (event) {
    delete keyclick[event.keyCode];
}, false);

function move(keyclick) {
    if (37 in keyclick) {
        player.x -= player.speed;
        player.pacdir = 64;
    }
    if (38 in keyclick) {
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    player.y -= player.speed;
    player.pacdir = 96;
}
if (39 in keyclick) {
    player.x += player.speed;
    player.pacdir = 0;
}
if (40 in keyclick) {
    player.y += player.speed;
    player.pacdir = 32;
}
if (player.x >= (canvas.width - 32)) {
    player.x = 0;
}
if (player.y >= (canvas.height - 32)) {
    player.y = 0;
}
if (player.x < 0) {
    player.x = (canvas.width - 32);
}
if (player.y < 0) {
    player.y = (canvas.height - 32);
}
if (player.pacmouth == 320) {
    player.pacmouth = 352;
} else {
    player.pacmouth = 320;
}
render();
}

function checkReady() {
    this.ready = true;
    playgame();
}

function playgame() {
    render();
    requestAnimationFrame(playgame);
}

function myNum(n) {
    return Math.floor(Math.random() * n);
}

function render() {
    context.fillStyle = "black";
    context.fillRect(0, 0, canvas.width, canvas.height);

    if (!powerdot.powerup && powerdot.pcountdown < 5) {
        powerdot.x = myNum(420) + 30;
        powerdot.y = myNum(250);
        powerdot.powerup = true;
    }
}
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if (!ghost) {
    enemy.ghostNum = myNum(5) * 64;
    enemy.x = myNum(450);
    enemy.y = myNum(250) + 30;
    ghost = true;
}
if (enemy.moving < 0) {
    enemy.moving = (myNum(20) * 3) + myNum(1);
    enemy.speed = myNum(3) + 1;
    enemy.dirx = 0;
    enemy.diry = 0;
    if (powerdot.ghosteat) {
        enemy.speed = enemy.speed * -1;
    }
    if (enemy.moving % 2) {
        if (player.x < enemy.x) {
            enemy.dirx = -enemy.speed;
        } else {
            enemy.dirx = enemy.speed;
        }
    } else {
        if (player.y < enemy.y) {
            enemy.diry = -enemy.speed;
        } else {
            enemy.diry = enemy.speed;
        }
    }
}
enemy.moving--;
enemy.x = enemy.x + enemy.dirx;
enemy.y = enemy.y + enemy.diry;

if (enemy.x >= (canvas.width - 32)) {
    enemy.x = 0;
}
if (enemy.y >= (canvas.height - 32)) {
    enemy.y = 0;
}
if (enemy.x < 0) {
    enemy.x = (canvas.width - 32);
}
if (enemy.y < 0) {
    enemy.y = (canvas.height - 32);
}

//Collision detection ghost
if (player.x <= (enemy.x + 26) && enemy.x <= (player.x + 26) && player.y <= (enemy.y + 26)
&& enemy.y <= (player.y + 32)) {
    console.log('ghost');
    if (powerdot.ghosteat) {
        score++;
    } else {
        gscore++;
    }
}
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    }
    player.x = 10;
    player.y = 100;
    enemy.x = 300;
    enemy.y = 200;

    powerdot.pcountdown = 0;

}
//Collision detection powerup
if (player.x <= powerdot.x && powerdot.x <= (player.x + 32) && player.y <= powerdot.y &&
powerdot.y <= (player.y + 32)) {
    console.log('hit');
    powerdot.powerup = false;
    powerdot.pcountdown = 500;
    powerdot.ghostNum = enemy.ghostNum;
    enemy.ghostNum = 384;
    powerdot.x = 0;
    powerdot.y = 0;
    powerdot.ghosteat = true;
}
if (powerdot.ghosteat) {
    powerdot.pcountdown--;
    if (powerdot.pcountdown <= 0) {
        powerdot.ghosteat = false;
        enemy.ghostNum = powerdot.ghostNum;

    }

}

if (powerdot.powerup) {
    context.fillStyle = "#ffffff";
    context.beginPath();
    context.arc(powerdot.x, powerdot.y, 10, 0, Math.PI * 2, true);
    context.closePath();
    context.fill();

}

if (enemy.flash == 0) {
    enemy.flash = 32;
} else {
    enemy.flash = 0;
}

context.font = "20px Verdana";
context.fillStyle = "white";
context.fillText("Pacman: " + score + " vs Ghost:" + gscore, 2, 18);

context.drawImage(mainImage, enemy.ghostNum, enemy.flash, 32, 32, enemy.x, enemy.y, 32, 32);
context.drawImage(mainImage, player.pacmouth, player.pacdir, 32, 32, player.x, player.y, 32, 32);

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32);  
  
}
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