<!DOCTYPE html>

<html lang="PT-BR">

<head>

<meta charset="UTF-8" />

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Runner game</title>

<style>

canvas{

background: lightblue;

display: block;

margin:auto;

}

</style>

</head>

<body>

<canvas id="GameCanvas" width="800" height="400"></canvas>

<script>

const canvas = document.getElementById(“gameCanvas”);

const ctx = canvas.getContext(“2d”);

// Jogador

const player = {

x: 50,

y: 300,

width:30,

height:30,

color:¨red¨,

velocityY: 0,

gravity: 0.5,

jumpPower: -10,

IsJumping: false

};

//Obstáculos

const obstacles = [];

let frameCount = 0;

let Gameover = false;

function drawPlayer(){

ctx.fillStyle = player.color;

ctx.fillRect(player.x, player.y, player.width, player.height);

}

function.drawObstacles(){

ctx.fillStyle = “black”;

obstacles.forEach(obstacle =>{

ctx.fillRect(obstacle.x, obstacle.y,obstacle.width, obstacle.height );

});

}

function updateObstacles(){

if(frameCount % 100 === 0){

obstacles.push({x: canvas.width, y:320, width:20, height:50, speed:4});

}

obstacles.forEach(obstacle => obstacle.x -= obstacle.speed);

obstacles.filter(obstacle => obstacle.x + obstacle.width >0);

}

function applyPhysics(){

player.velocityY += player.gravity;

player.y += player.velocity;

if (player.y >= 300){

player.y = 300;

player.IsJumping =false;

}

}

function checkCollisions(){

obstacles.forEach(obstacle=>{

if(player.x < obstacle.x + obstacle.width &&

player.x + player.width > obstacle.x &&

player.y < obstacle.x + obstacle.width &&

player.y + player.width > obstacle.y ){

Gameover = true;

}

});

}

function gameLoop(){

if(gameOver){

ctx.fillStyle = “black”;

ctx.font = “30px Arial”;

ctx.fillText(“Game Over”, canvas.width / 2 - 70, canvas.height / 2);

return;

}

ctx.clearRect(0, 0, canvas.width, canvas.height);

drawPlayer();

drawObstacles();

applyPhysics();

updateObstacles();

checkCollisions();

frameCount++;

requestAnimationFrame(gameLoop);

}

window.addEventListener(“keydow”, function (event){

if (event.code === "Space" && !player.isJumping){

player.velocityY = player.jumpPower;

player.isJumping = true;

}

});

gameLoop();

</script>

</body>

</html>