<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Graphics and Animation Activity</title>

<style>

canvas {

border: 1px solid #000;

}

</style>

</head>

<body>

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

<script>

// Your JavaScript code will go here

document.addEventListener("DOMContentLoaded", function() {

var canvas = document.getElementById("animationCanvas");

var context = canvas.getContext("2d");

var x = 50; // Initial x-coordinate

var y = 50; // Initial y-coordinate

var radius = 20; // Circle radius

var dx = 5; // Change in x

var dy = 2; // Change in y

function draw() {

context.clearRect(0, 0, canvas.width, canvas.height); // Clear the canvas

context.beginPath();

context.arc(x, y, radius, 0, Math.PI \* 2);

context.fillStyle = "#0095DD";

context.fill();

context.closePath();

// Update position for the next frame

x += dx;

y += dy;

// Bounce off the walls

if (x + radius > canvas.width || x - radius < 0) {

dx = -dx;

}

if (y + radius > canvas.height || y - radius < 0) {

dy = -dy;

}

requestAnimationFrame(draw); // Schedule the next frame

}

draw(); // Start the animation

});

</script>

</body>

</html>