Tutorials ▼ Exercises ▼ Get Certified ▼ Services ▼ SQL PYTHON JAVA PHP BOOTSTRAP HOW TO W3.CSS C C++ C# REACT R JQUERY DJANGO TYPESCRIPT NODEJS MYSQL HTML Graphics Graphics HOME HTML Plotting Game Components Plot Graphics Plot Canvas Plot Plotly Previous Next 🕻 Plot Chart.js Plot Google Plot D3.js Add a red square onto the game area: Google Maps Maps Intro Maps Basic Maps Overlays Maps Events Maps Controls Maps Types Maps Reference SVG Tutorial Add a Component SVG Intro SVG in HTML Make a component constructor, which lets you add components onto the gamearea. SVG Rectangle SVG Circle The object constructor is called component, and we make our first component, called myGamePiece: SVG Ellipse SVG Line Example SVG Polygon SVG Polyline SVG Path var myGamePiece; SVG Text function startGame() { SVG Stroking myGameArea.start(); SVG Filters Intro myGamePiece = new component(30, 30, "red", 10, 120); SVG Blur Effects SVG Drop Shadows SVG Linear function component(width, height, color, x, y) { **SVG Radial** this.width = width; SVG Examples this.height = height; this.x = x;SVG Reference this.y = y;ctx = myGameArea.context; Canvas Tutorial ctx.fillStyle = color; Canvas Intro ctx.fillRect(this.x, this.y, this.width, this.height); Canvas Drawing Canvas Coordinates Canvas Lines Try it Yourself » Canvas Shapes Canvas Rectangles Canvas Circles The components have properties and methods to control their appearances and movements. Canvas Curves Canvas Gradients Canvas Text Canvas Images Frames Canvas Clock Clock Intro To make the game ready for action, we will update the display 50 times per second, which is much like frames in a movie. Clock Face First, create a new function called updateGameArea(). Clock Numbers Clock Hands In the myGameArea object, add an interval which will run the updateGameArea() function every 20th millisecond (50 times per second). Also add a function called clear(), that clears the entire canvas. Clock Start In the **component** constructor, add a function called **update()**, to handle the drawing of the component. HTML Game The updateGameArea() function calls the clear() and the update() method. Game Intro Game Canvas The result is that the component is drawn and cleared 50 times per second: Game Components Game Controllers Example Game Obstacles Game Score var myGameArea = { Game Images canvas : document.createElement("canvas"), Game Sound start : function() { Game Gravity this.canvas.width = 480; Game Bouncing this.canvas.height = 270; Game Rotation this.context = this.canvas.getContext("2d"); Game Movement document.body.insertBefore(this.canvas, document.body.childNodes[0]); this.interval = setInterval(updateGameArea, 20); clear : function() { this.context.clearRect(0, 0, this.canvas.width, this.canvas.height); function component(width, height, color, x, y) { this.width = width; this.height = height; this.x = x;this.y = y;this.update = function(){ ctx = myGameArea.context; ctx.fillStyle = color; ctx.fillRect(this.x, this.y, this.width, this.height); function updateGameArea() { myGameArea.clear(); myGamePiece.update(); Try it Yourself » Make it Move To prove that the red square is being drawn 50 times per second, we will change the x position (horizontal) by one pixel every time we update the game area: Example function updateGameArea() { myGameArea.clear(); myGamePiece.x += 1;myGamePiece.update(); Try it Yourself » Why Clear The Game Area? It might seem unnecessary to clear the game area at every update. However, if we leave out the clear () method, all movements of the component will leave a trail of where it was positioned in the last frame: Example function updateGameArea() { // myGameArea.clear(); myGamePiece.x += 1;myGamePiece.update(); Try it Yourself » Change the Size You can control the width and height of the component: Example Create a 10x140 pixels rectangle: function startGame() { myGameArea.start(); myGamePiece = new component(140, 10, "red", 10, 120); Try it Yourself » Change the Color You can control the color of the component: Example function startGame() { myGameArea.start(); myGamePiece = new component(30, 30, "blue", 10, 120); Try it Yourself » You can also use other colorvalues like hex, rgb, or rgba: Example

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