

Canvas clearRect

Summary: in this tutorial, you'll learn how to use the `clearRect()` method to erase an area of the canvas.

Introduction to the Canvas `clearRect()` method

The `clearRect()` is a method of the 2D drawing context. The `clearRect()` method clears an area of the canvas by making that area transparent.

In practice, you draw shapes and then use the `clearRect()` method to clear specific areas to create some interesting effects.

The following shows the syntax of the `clearRect()` method:

```
ctx.clearRect(x, y, width, height);
```

The `clearRect()` has four parameters that define an area to erase:

- `x` is the x-axis coordinate of the starting point of the rectangle.
- `y` is the y-axis coordinate of the starting point of the rectangle.
- `width` is the rectangle's width. The sign of the width will determine the direction of the rectangle. Positive values are to the right while the negative values are to the left of the starting point.
- `height` is the rectangle's height. It also accepts both positive and negative values. Positive values are down while the negative values are up from the starting point.

The canvas `clearRect()` method example

The following shows the `index.html` that contains a canvas element:

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>JavaScript Canvas clearRect</title>
  <link rel="stylesheet" href="css/style.css">
</head>

<body>

  <h1>JavaScript clearRect() Demo</h1>

  <canvas id="canvas" height="400" width="500">
</canvas>

  <script src="js/app.js"></script>

</body>
</html>

```

In the `app.js` file, define the `draw()` that will draw on the canvas:

```

function draw() {
  const canvas = document.querySelector('#canvas');

  if (!canvas.getContext) {
    return;
  }

  const ctx = canvas.getContext('2d');

  // draw two squares
  ctx.fillStyle = '#F9DC5C';
  ctx.fillRect(50, 50, 150, 150);

  ctx.fillStyle = 'rgba(0,0,255,0.5)';

```

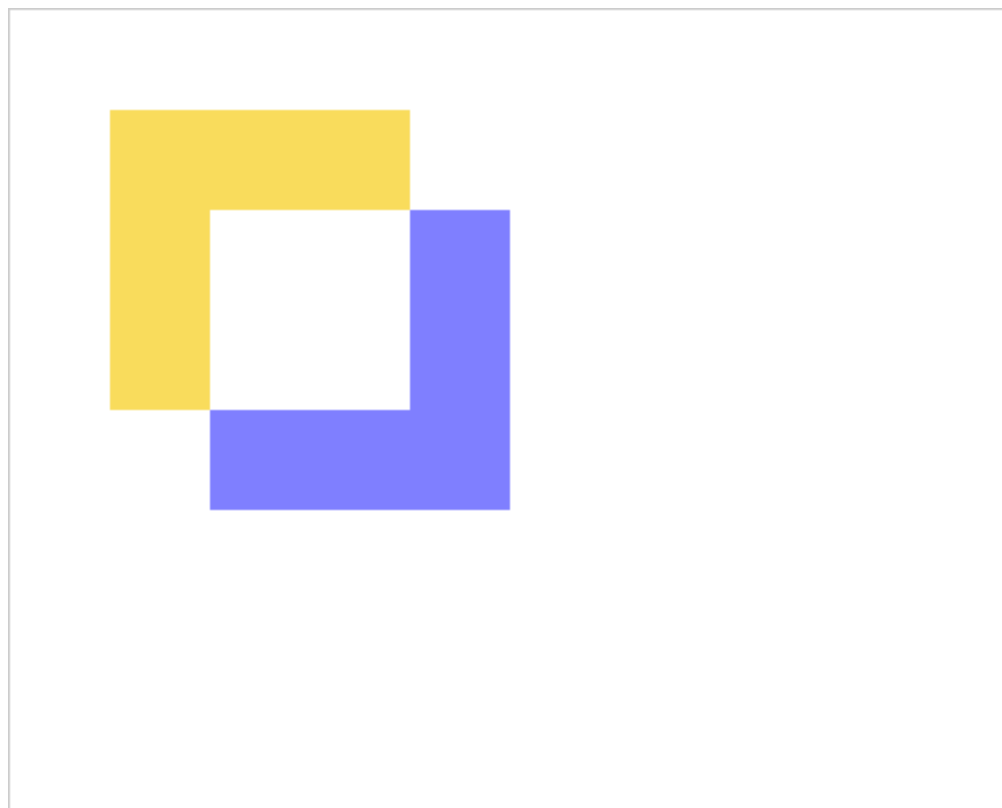
```
ctx.fillRect(100, 100, 150, 150);

// clear the intersection
ctx.clearRect(100, 100, 100, 100);

}

draw();
```

The following picture shows the output:



And here is the `clearRect()` demo.

How it works.

- First, select the canvas element using the `document.querySelector()` method.
- Next, check if the browser supports the canvas API.
- Then, get the 2D drawing context for drawing on the canvas.
- Then, draw two intersecting squares by using the `fillRect()` method. The second square has alpha transparency.

- Finally, clear the intersection of the two squares by using the `clearRect()` method.

Summary

- Use the `clearRect()` method to set the pixels in a rectangular area on a canvas to transparent black.