Canvas
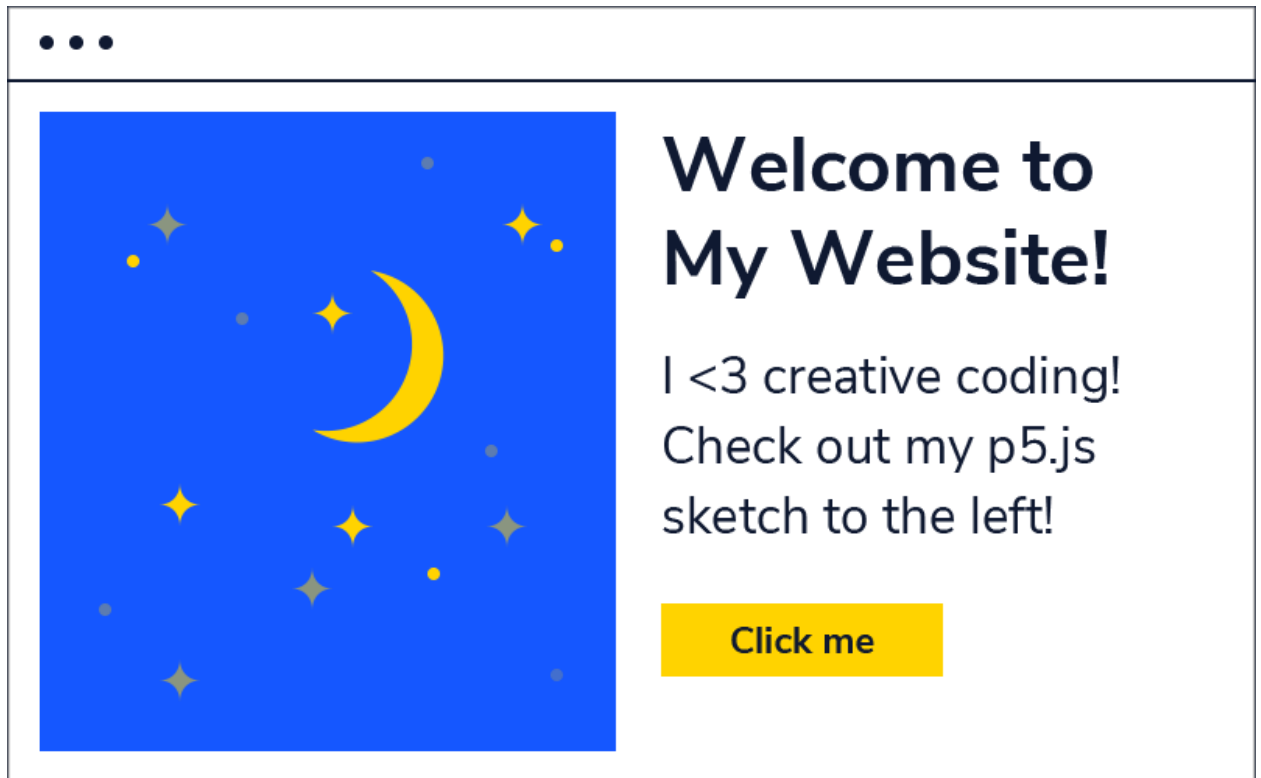
4 min

Programming graphics with p5.js is a lot like drawing on graph paper, except the HTML `<canvas>` element is your paper! The `<canvas>` element is an HTML element that renders graphics created with JavaScript's [Canvas API]. As you can see in the diagram below, the `<canvas>` element can be used alongside other HTML elements on the web page.

Utilizing the Canvas API behind the scenes, the p5.js library provides many built-in drawing functions that simplify drawing to the HTML `<canvas>` on the fly using JavaScript. The p5.js library removes pesky nuances such as rendering context and introduces more familiar function names when drawing to the `<canvas>`.

The p5.js library's built-in `createCanvas()` function dynamically creates an empty HTML `<canvas>` element to the web page. The function takes two arguments: the width and height of the canvas element in pixels.

```
// Creates a canvas with the width of canvasWidth and the height of
canvasHeight
createCanvas(canvasWidth, canvasHeight);
```

Once the `createCanvas()` function has been called, the canvas can be styled further using CSS to, for example, position the canvas at the center of the web page.

If the `createCanvas()` function is not explicitly called, p5.js will automatically create an HTML `<canvas>` element that is 100 pixels wide and 100 pixels tall. If, for some reason, your p5.js sketch does not require a canvas, explicitly call the `noCanvas()` function to stop p5.js from creating a canvas at the start of the program.

Instructions

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1.

Call the `createCanvas()` function with a width of 400 pixels and a height of 400 pixels within the `setup()` function to create an empty HTML `<canvas>` element. We will learn about what the `setup()` function does in the next exercise.

Don't worry if you don't see anything. Your canvas is there—it's just blank!
Hint
The `createCanvas()` function takes the width and height of the canvas in pixels as arguments. If you were to create a canvas with a width of 300 pixels and a height of 500 pixels, your code would look something like below:

```
createCanvas(300, 500);
```

sketch.js

```
function setup(){
  // Setup code goes here
  // TODO: Create a canvas that is 400px wide and 400px tall
  createCanvas(400, 400)
}

function draw(){
  // Drawing code goes here


}
```