createPattern() METHOD IN HTML5 CANVAS

- The **createPattern()** method is used to repeats the specific component in the specified direction.

- The component can be an image, video, or another component.

- The repeated component can be used to draw rectangles, circles, lines etc.

Syntax for createPattern() method in HTML5 Canvas:

context.**createPattern**(image,"repeat|repeat-x|repeat-y|no-repeat");

Parameter Values for createPattern() method in HTML5 Canvas:

Parameters	Description
Image	To use image, canvas or video component
Repeat	The pattern repeats both horizontally and vertically. This is a default value.
Repeat-x	The pattern repeats only horizontally
Repeat-y	The pattern repeats only vertically
No-repeat	The pattern will be displayed only once.

Sample coding for createPattern() method in HTML5 Canvas:

```html
<!DOCTYPE html>
<html>
   <head>
      <title>Wikitechy HTML canvas createPattern()</title>
   </head>
   <body>
      <h1>Wikitechy HTML canvas createPattern()</h1>
      <p>Image:</p>
      <img src="smile.jpg" id="smileImg" width="30" height="30">
      <p> wikitechyCanvas:</p>
      <button onclick="draw('repeat')">Repeat</button>
      <button onclick="draw('repeat-x')">Repeat-x</button>
      <button onclick="draw('repeat-y')">Repeat-y</button>
      <button onclick="draw('no-repeat')">No-repeat</button>
      <canvas id="wikitechyCanvas" width="400" height="200"
        style="border:1px solid #d3d3d3;"></canvas>
      <script>
         function draw(direction)
         {
             var p= document.getElementById("wikitechyCanvas");
             var vps = p.getContext("2d");
             vps.clearRect(0, 0, p.width, p.height);
             var img = document.getElementById("smileImg")
             var def = vps.createPattern(img, direction);
             vps.rect(0, 0, 200, 150);
             vps.fillStyle =def;
             vps.fill();
         }
      </script>
   </body>
</html>
```

Code Explanation for createPattern() method in HTML5 Canvas:

```html
<!DOCTYPE html>
<html>
    <head>
        <title>Wikitechy HTML canvas createPattern()</title>
    </head>
    <body>
        <h1>Wikitechy HTML canvas createPattern()</h1>
        <p>Image:</p>                                    ①
        <img src="smile.jpg" id="smile" width="30" height="30">
        <p> wikitechyCanvas:</p>

②  <button onclick="draw('repeat')">Repeat</button>
③  <button onclick="draw('repeat-x')">Repeat-x</button>
④  <button onclick="draw('repeat-y')">Repeat-y</button>
⑤  <button onclick="draw('no-repeat')">No-repeat</button>
                        ⑥
        <canvas id="wikitechyCanvas" width="400" height="200"
        style="border:1px solid #d3d3d3;">
        </canvas>
        <script>                                  ⑦
            function draw(direction) {
                var p= document.getElementById("wikitechyCanvas");
                var vps = p.getContext("2d");    ⑧
                vps.clearRect(0, 0, p.width, p.height);
                var img = document.getElementById("smile")    ⑨
                var def = vps.createPattern(img, direction);
                vps.rect(0, 0, 200, 150);
                vps.fillStyle =def;         ⑪
                vps.fill();                            ⑩
            }
        </script>
    </body>
</html>
```
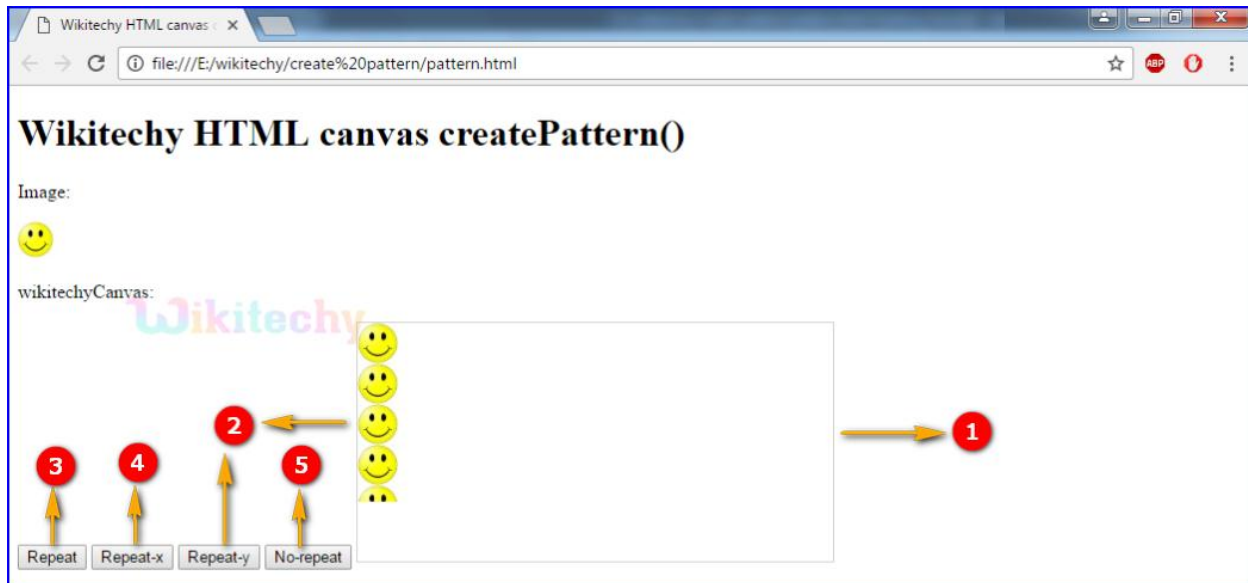
1. **<img>** tag is used to display smile image and the image id as **"smile".**
2. **repeat** is used to repeat the smile image in both vertical and horizontal direction.
3. **repeat-x** to draw the smile image in horizontal direction.

4. **repeat-y** to draw the smile image in vertical direction.
5. **no repeat** to draw the smile image in only one time.
6. **"wikitechyCanvas"** is used to declare the id value of the canvas tag.
7. **getElementById** method is used to draw the element from <canvas> tag.
8. **getContext("2d"):** returns an object that provides methods and properties for drawing on the canvas.
9. **getElementById** method is used to draw the **"smile"** from <img> tag.
10. The **createPattern()** method is used to declared for smile image direction.
11. **fillstyle** is used to fill the smile image to the canvas with the help of **createPattern()** method .

Output for createPattern() method in HTML5 Canvas:

1. the canvas rectangle with width as 400 and height as 200.

2. Here the output is displayed in **repeat y** pattern that repeat the image in y-direction (vertical).

3. If click **Repeat** button, the image will be displays both vertical and horizontal directions.

4. If click **Repeat-x** button the image will be displays in horizontal direction.

5. If click **No-repeat** the image output will be displays only one time.

Browser Support createPattern() method in HTML5 Canvas:

Browser	Support
Chrome	Yes
Internet explorer / Edge	9.0
Firefox	Yes
Safari	Yes
Opera	Yes