

Graphics and Media

Hypertext Markup Language 5 (HTML5)



Table of Content

- Graphics
- Media





Graphics

(Hypertext Markup Language 5)



HTML5 Canvas

- The HTML `<canvas>` element is used to draw graphics on a web page
- It shows four elements: a red rectangle, a gradient rectangle, a multi-color rectangle, and a multi-color text
- The `<canvas>` element is only a container for graphics
- You must use JavaScript to actually draw the graphics
- The `getContext()` method returns an object that provides methods and properties for drawing on the canvas
- The `getContext("2d")` object, which can be used to draw text, lines, boxes, circles, and more - on the canvas

Canvas Examples

- A canvas is a rectangular area on an HTML page
- By default, a canvas has no border and no content
- Example

```
<canvas id="myCanvas" width="200" height="100"></canvas>
```

Draw Line

(Example)

```
<canvas id="canvas1" width="300" height="200" style="border:1px solid #d3d3d3;">
</canvas>

<script>
var a = document.getElementById("canvas1");
var ctx = a.getContext("2d");
ctx.moveTo(0,0);
ctx.lineTo(300,200);
ctx.stroke();
</script>
```

Draw a Circle

(Example)

```
<canvas id="canvas1" width="200" height="100" style="border:1px solid #d3d3d3;">
</canvas>
<script>
var c = document.getElementById("canvas1");
var ctx = c.getContext("2d");
ctx.beginPath();
ctx.arc(95,50,40,0,2*Math.PI);
ctx.stroke();
</script>
```



Media

(Hypertext Markup Language 5)

HTML5 Video

- HTML5 specification introduced video element for the purpose of playing videos
- The <video> Tag
 - HTML5 embedding video essentially comes down to using a single tag <video>

HTML5 Video - Example

```
<!DOCTYPE html>
<html>
<body>
<video id="idname" src="flower.mp4" width="300" height="200"
controls autoplay></video>
</body>
</html>
```

HTML5 Video Attributes

- src - The location and name of the source video
- autoplay - allows the video to play when the page loads
- preload - allows the author to provide a hint to the browser about what the author thinks
- controls - Adding this attribute means you can use your own play/pause/etc buttons for your video
- poster - A URL indicating a poster frame to show until the user plays or seeks

HTML5 Audio

- The HTML5 <audio> element specifies a standard way to embed audio in a web page
- To play an audio file in HTML, use the <audio> element

HTML5 Audio

```
<!DOCTYPE html>
<html>
<body>
<audio controls>
<source src="song.mp3" type="audio/mp3">
</audio>
</body>
</html>
```

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*Thank
you*