HTML5 - CANVAS

HTML5 element <canvas> gives you an easy and powerful way to draw graphics using JavaScript. It can be used to draw graphs, make photo compositions or do simple *andnotsosimple* animations.

Here is a simple <canvas> element which has only two specific attributes **width** and **height** plus all the core HTML5 attributes like id, name and class etc.

```
<canvas ></canvas>
```

You can easily find that <canvas> element in the DOM using *getElementById* method as follows −

```
var canvas  = document.getElementById("mycanvas");
```

Let us see a simple example on using <canvas> element in HTML5 document.

```
<!DOCTYPE HTML>
<html>
   <head>

      <style>
         #mycanvas{border:1px solid red;}
      </style>

   </head>
   <body>

      <canvas ></canvas>

   </body>
</html>
```
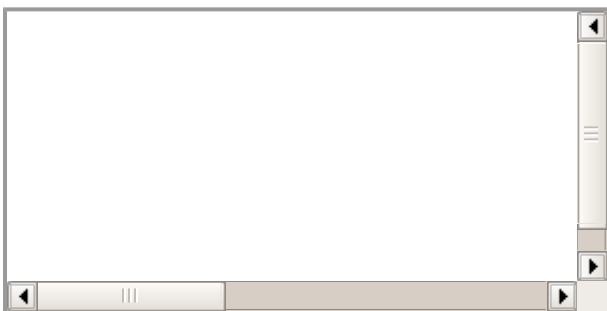
This will produce following result −

The Rendering Context

The <canvas> is initially blank, and to display something, a script first needs to access the rendering context and draw on it.

The canvas element has a DOM method called **getContext**, used to obtain the rendering context and its drawing functions. This function takes one parameter, the type of context **2d**.

Following is the code to get required context along with a check if your browser supports <canvas> element −

```
var canvas  = document.getElementById("mycanvas");

if (canvas.getContext){
   var ctx = canvas.getContext('2d');
   // drawing code here
}
```

```
else {
    // canvas-unsupported code here
}
```

Browser Support

The latest versions of Firefox, Safari, Chrome and Opera all support for HTML5 Canvas but IE8 does not support canvas natively.

You can use ExplorerCanvas to have canvas support through Internet Explorer. You just need to include this javascript as follows:

```
<!--[if IE]><script src="excanvas.js"></script><![endif]-->
```

HTML5 Canvas Examples

This tutorial covers following examples related to HTML5 <canvas> element.

Examples	Description
Drawing Rectangles	Learn how to draw rectangle using HTML5 <canvas> element
Drawing Paths	Learn how to make shapes using paths in HTML5 <canvas> element
Drawing Lines	Learn how to draw lines using HTML5 <canvas> element
Drawing Bezier	Learn how to draw bezier curve using HTML5 <canvas> element
Drawing Quadratic	Learn how to draw quadratic curve using HTML5 <canvas> element
Using Images	Learn how to use images with HTML5 <canvas> element
Create Gradients	Learn how to create gradients using HTML5 <canvas> element
Styles and Colors	Learn how to apply styles and colors using HTML5 <canvas> element
Text and Fonts	Learn how to draw amazing text using different fonts and their size.
Pattern and Shadow	Learn how to draw different patterns and drop shadows.
Canvas States	Learn how to save and restore canvas states while doing complex

drawings on a canvas.

[Canvas Translation](#)	This method is used to move the canvas and its origin to a different point in the grid.
[Canvas Rotation](#)	This method is used to rotate the canvas around the current origin.
[Canvas Scaling](#)	This method is used to increase or decrease the units in a canvas grid.
[Canvas Transform](#)	These methods allow modifications directly to the transformation matrix.
[Canvas Composition](#)	This method is used to mask off certain areas or clear sections from the canvas.
[Canvas Animation](#)	Learn how to create basic animation using HTML5 canvas and Javascript.

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