

Raphael

A framework to create SVG graphics

Telerik Software Academy

Learning & Development

<http://academy.telerik.com>

- ◆ Raphael
 - ◆ Overview and setup
- ◆ Raphael features
 - ◆ Creating shapes
 - ◆ Setting attributes
 - ◆ Animations

Raphael

Overview and setup

- ◆ Raphael is a JavaScript framework for working with SVG shapes
 - ◆ Dynamically, with JavaScript
- ◆ Setting up Raphael:
 1. Download the script from [the site](#)
 2. Include the script into the HTML page:

```
<script src='scripts/raphael-min.js'></script>
```
 3. Instantiate Raphael object:

```
var paper = Raphael(10, 10, 500, 500);
```
 4. Ready to go

Raphael Setup

Live Demo

Raphael Shapes

- ◆ Raphael has all the basic shapes:

- ◆ Rect:

```
var rect = paper.rect(x, y, width, height);
```

- ◆ Circle:

```
var circle = paper.circle(cx, cy, radius);
```

- ◆ Path:

```
var path = paper.path(points);
```

Raphael Shapes

Live Demo

Shape Properties

- ◆ Shapes created with Raphael have settable properties
 - ◆ To change fill color, stroke, etc...

```
var rect = paper.rect(50, 90, 180, 80);  
rect.attr({  
  fill: 'purple',  
  stroke: 'blue',  
  'stroke-width': 10  
})  
.rotate(25, 170, 140);
```

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The attr() methods
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The attr() methods
gets an object

Method calls can
be chained

Shape Properties

Live Demo

Raphael Sets

Grouping elements together

- ◆ Sets in Raphael allow to change the attributes of a group of elements at once
 - ◆ The shapes can be of any type:
 - ◆ Rects
 - ◆ Circles
 - ◆ Text
 - ◆ Images

Raphael Sets: Example

- ◆ Change the attr of a group of elements at once
 1. Start a set with `setStart()`

```
paper.setStart();
```


Raphael Sets: Example

- ◆ Change the attr of a group of elements at once

1. Start a set with `setStart()`

```
paper.setStart();
```

2. Add the shapes

```
paper.setStart();  
paper.circle(75, 85, 75);  
paper.rect(160, 85, 75, 45);  
paper.text(10, 200, 'This is the text');
```

Raphael Sets: Example

- ◆ Change the attr of a group of elements at once

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paper.setStart();
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2. Add the shapes

```
paper.setStart();  
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paper.text(10, 200, 'This is the text');
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3. Finish the set and save it in variable

```
var set = setFinish();
```

Raphael Sets: Example

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1. Start a set with `setStart()`

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3. Finish the set and save it in variable

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4. Set properties

```
set.attr({ ... });
```

Raphael Sets

Live Demo



Questions?

1. Create the following images using Raphael:



2. Create a spiral with Raphael

- ♦ *Hint: use many circles with radius 1px

