03. SVG Rectangle.

3.1. Example 1

The <rect> element is used to create a rectangle and variations of a rectangle shape:

Example: Here is the SVG code:

```
<svg width="400" height="110">
  <rect width="300" height="100" style="fill:rgb(0,0,255);stroke-
width:3;stroke:rgb(0,0,0)" />
</svg>
```

Code explanation:

- The width and height attributes of the <rect> element define the height and the width of the rectangle
- The style attribute is used to define CSS properties for the rectangle
- The CSS fill property defines the fill color of the rectangle
- The CSS stroke-width property defines the width of the border of the rectangle
- The CSS stroke property defines the color of the border of the rectangle

3.2. Example 2

Let's look at another example that contains some new attributes:

Example: Here is the SVG code:

```
<svg width="400" height="180">
  <rect x="50" y="20" width="150" height="150"
  style="fill:blue;stroke:pink;stroke-width:5;fill-
opacity:0.1;stroke-opacity:0.9" />
</svg>
```

Code explanation:

- The x attribute defines the left position of the rectangle (e.g. x="50" places the rectangle 50 px from the left margin)
- The y attribute defines the top position of the rectangle (e.g. y="20" places the rectangle 20 px from the top margin)
- The CSS fill-opacity property defines the opacity of the fill color (legal range: 0 to 1)
- The CSS stroke-opacity property defines the opacity of the stroke color (legal range: 0 to 1)

3.3. Example 3

Define the opacity for the whole element:

Example: Here is the SVG code:

```
<svg width="400" height="180">
  <rect x="50" y="20" width="150" height="150"
  style="fill:blue;stroke:pink;stroke-width:5;opacity:0.5" />
</svg>
```

Code explanation:

- The CSS opacity property defines the opacity value for the whole element (legal range: 0 to 1)

3.4. Example 4

Last example, create a rectangle with rounded corners:

Example: Here is the SVG code:

```
<svg width="400" height="180">
  <rect x="50" y="20" rx="20" ry="20" width="150" height="150"
  style="fill:red;stroke:black;stroke-width:5;opacity:0.5" />
</svg>
```

Code explanation:

- The rx and the ry attributes rounds the corners of the rectangle