Coding a Frog in SVG on a 600 by 600 grid

To get started copy the code of this image into your editor: http://steamcoded.org/lessons/grid600x600.svg.txt and save the file as Frog.svg and open the file in a browser.

In the editor, add the SVG elements (per instructions below) where indicated in the SVG code, i.e. inside the second grouping (<g> element).

Syntax Examples:
A rectangle starting at (0,0) with a width of 600 and a height of 600 would have the following code:
<rect x="0" y="0" width="600" height="600" />

An circle centered at (235,70) with a radius of 20 would have the following code:
<circle cx="235" cy="70" r="20" />

An ellipse centered at (300,500) with an x-radius of 280 and a y-radius of 97 would have the following code:
<ellipse cx="300" cy="500" rx="280" ry="97" />

1:   Add another default style - fill:darkgreen; - to the group with style="opacity:0.5;" so it looks like:
     <g style="opacity:0.5;fill:darkgreen;">

2:   Draw an rectangle starting at (0,0), width: 600, height: 600, style="fill:blue;"

3:   Draw an rectangle starting at (0,300), width: 600, height: 300, style="fill:aqua;"

4:   Draw an ellipse at (300,500), x-radius: 280, y-radius: 97, style="fill:limegreen;"

5:   Draw an ellipse at (150,550), x-radius: 60, y-radius: 20

6:   Add a group <g> element with attribute: transform="rotate(30,470,440)"
     <g transform="rotate(30,470,440)">
     </g>
     This rotates the objects within the group (child elements) by 30 degrees about point (470,440)

7:   Add an ellipse at (130,440), x-radius: 60, y-radius: 140 as a child element of the group in step 6

8:   Add a <path> element as a child element of the group in step 6 with attributes:
     d="M130,370L130,579L125,578z"
     style="fill:black;stroke:black;stroke-width:2px;"

9: Copy the code from steps 5-8 and paste on the next line, then change:
ellipse attribute cx, from "150" to "450"
transform from "rotate(-30,130,440)" to "rotate(30,470,440)"
ellipse attribute cx, from "130" to "470"
path attribute d, from "M130,370L130,579L125,578z" to "M470,370L470,579L475,578z"

10: Draw an ellipse at (300,370), x-radius: 170, y-radius: 200

11: Draw an ellipse at (300,370), x-radius: 110, y-radius: 150, style="fill:yellowgreen;"

12: Draw an ellipse at (300,170), x-radius: 150, y-radius: 100

13: Draw an ellipse at (240,90), x-radius: 50, y-radius: 80 with attribute:
transform="rotate(-15,240,90)"
This rotates the ellipse -15 degrees about its center

14: Draw an ellipse at (360,90), x-radius: 50, y-radius: 80 with attribute:
transform="rotate(15,360,90)"
This rotates the ellipse 15 degrees about its center

15: Draw an ellipse at (235,70), x-radius: 30, y-radius: 40, with attributes:
transform="rotate(-15,235,70)"
style="fill:white;"

16: Draw a circle at (235,70), radius: 20, style="fill:black;"

17: Copy the code from steps 15-16 and paste on the next line, then change:
ellipse attribute cx, from "235" to "365"
transform from "rotate(-15,235,70)" to "rotate(15,365,70)"
circle attribute cx, from "235" to "365"

18: Add a <path> element with attributes:
d="M220,170Q300,280,380,170"
style="fill:none;stroke:black;stroke-width:10px;stroke-linecap:round;"

19: Add a <path> element with attributes:
d="M140,350Q125,460,220,560l-10,30l20,-5l20,5l20,-5l20,5L280,560
Q170,460,180,350"
style="stroke:black;stroke-width:2px;stroke-linejoin:round;"
Note the lower case L is a line with relative coordinates and is not the number 1

20: Add a <path> element with attributes:
d="M460,350Q475,460,380,560l10,30l-20,-5l-20,5l-20,-5l-20,5L320,560
Q430,460,420,350"
style="stroke:black;stroke-width:2px;stroke-linejoin:round;"

When complete, change the style attribute of the first element from "display:initial" to
"display:none" which hides the grid. Then change the style style attribute of the
second element from "opacity:0.5" to "opacity:1"