

# Hands-on activities 3

Inheritance

- Implement a file vector-graphics drawer
- It should support:
  - setColor
  - fillRect
  - fillCircle
  - drawPolyLine
- It should support export in
  - SVG [https://en.wikipedia.org/wiki/Scalable\\_Vector\\_Graphics](https://en.wikipedia.org/wiki/Scalable_Vector_Graphics)
  - EPS [https://en.wikipedia.org/wiki/Encapsulated\\_PostScript](https://en.wikipedia.org/wiki/Encapsulated_PostScript)
- Write a text file in Java

```
PrintWriter writer = new PrintWriter(path);
writer.println("The first line");
writer.close();
```

- **Header**

```
<svg width="w" height="h" x="0" y="0" >
//content
</svg>
```

- **setColor**

```
rgb(r, g, b)
```

- **fillRect**

```
<rect x="x" y="y" width="w" height="h" style="fill:color" />
```

- **fillCircle**

```
<ellipse cx="cx" cy="cy" rx="r" ry="r" style="fill:color" />
```

- **drawPloyLine**

```
<polyline points="x1,y1, ..., xn, yn" style="fill:color" />
```



- **Header**

```
%!PS-Adobe-3.0 EPSF-3.0
%%BoundingBox: 0 0 w h
%%Pages: 1
%%Page: 1 1
//content
```

- **setColor**

```
r g b setrgbcolor
```

- **fillRect**

```
x y w h rectfill
```

- **fillCircle**

```
x y moveto
x y r 0 360
fill
```

- **drawPloyLine**

```
x1 y1 moveto
... lineto
xn yn lineto
stroke
```