

Projekt 5.4

```
import java.io.*;
import java.awt.*;

interface Shape {
    void draw(Graphics g);
}

public class LineSegment implements Shape {
    int x1, y1, x2, y2;

    public LineSegment(int x1, int y1, int x2, int y2) {
        this.x1 = x1; this.y1 = y1;
        this.x2 = x2; this.y2 = y2;
    }

    public void draw(Graphics g) {
        g.drawLine(x1, y1, x2, y2);
    }

    public String toString() {
        return "LineSegment (" + x1 + ", " + y1 + ") " +
            "(" + x2 + ", " + y2 + ") ";
    }
}

public class Rectangle implements Shape {
    int x, y, width, height;

    public Rectangle(int x, int y, int width, int height) {
        this.x = x; this.y = y;
        this.width = width; this.height = height;
    }

    public void draw(Graphics g) {
        g.drawRect(x, y, width, height);
    }

    public String toString() {
        return "Rectangle (" + x + ", " + y + ") " +
            "\t[width =" + width + ", height = " + height + "] ";
    }
}
```

```
public class Circle implements Shape {
    int x, y, radius;

    public Circle(int x, int y, int radius) {
        this.x = x; this.y = y; this.radius = radius;
    }

    public void draw(Graphics g) {
        g.drawOval(x, y, 2*radius, 2*radius);
    }

    public String toString() {
        return "Circle      (" + x + ", " + y + ") " +
            "\t[radius = " + radius + "] ";
    }
}
```

```

import java.awt.*;
import javax.swing.*;
import java.util.*;
import java.net.*;

public class ShapeApplet extends JApplet {
    Shape[] shape = new Shape[100];
    int shapes = 0;

    public init() {
        try {
            URL url = new URL(getCodeBase(), "shapes.txt");
            BufferedReader in = new BufferedReader(
                new InputStreamReader(
                    url.openStream()));

            String line;
            while ((line = in.readLine()) != null) {
                // ... som i opgave 5.1
            }
        } catch (IOException e) {
            throw new RuntimeException(e.toString());
        }
    }

    public void paint(Graphics g) {
        for (int i = 0; i < shapes; i++)
            shape[i].draw(g);
    }
}

```