Image filtration

Making use of the picture:
https://drive.google.com/file/d/0B2rpQ5HMRGG5YzBJNWZVdG1uTms/view?usp=sharing
Try process it according to methods presented by the teacher.

First try the operation with GIMP. This way designing your own advanced image processing algorithm will be easier in the future.
Next try to implement each operation yourself using provided functions in Java.

Reading image files:
```
File file = new File("obrazek.jpg");
BufferedImage in=ImageIO.read(file);
```

BufferedImage class provides various methods to operate on images.
https://docs.oracle.com/javase/8/docs/api/java/awt/image/BufferedImage.html

We will use getRGB(int x, int y) to get the pixel value.
In case of RGB images each pixel will be represented by a single int.
Each pixel contains of Red, Green and Blue subpixels. To get the subpixel value use one of th efollowing functions:
```
private static int getR(int in) {
      return (int)((in << 8) >> 24) & 0xff;
}
private static int getG(int in) {
      return (int)((in << 16) >> 24) & 0xff;
}
private static int getB(int in) {
      return (int)((in << 24) >> 24) & 0xff;
}
private static int toRGB(int r,int g,int b) {
      return (int)((((r << 8)|g) << 8)|b);
}
```

To write our output BufferedImage object info a file use:
```
ImageIO.write(out, "jpeg", new File("out.jpg"));
```

In a case of Eclipse error:
"Access restriction on class due to restriction on required library"
follow the solution on the page:
http://stackoverflow.com/questions/860187/access-restriction-on-class-due-to-restriction-on-required-library-rt-jar