

Factory Method

Atat ImageEditorV1 cat si ImageEditorV2 impart imaginea de input in patru sferturi pentru a prezenta conceptul de Java Multithreading, fiecare thread procesand W*H/4 pixeli (sau 3*W*H/4 integeri R,G,B). Secventa de cod pentru impartirea lungimii si latimii a fost inlocuita cu Factory Method.

Inainte:

```
if(this.position == 1){
    widthStart = 0;
    widthEnd = image.getWidth()/2;
    heightStart = 0;
    heightEnd = image.getHeight()/2;
}
else if(this.position == 2) {
    widthStart = image.getWidth()/2 + 1;
    widthEnd = image.getWidth() - 1;
    heightStart = 0;
    heightEnd = image.getHeight()/2;
}
else if(this.position == 3) {
    widthStart = 0;
    widthEnd = image.getWidth()/2;
    heightStart = image.getHeight()/2 + 1;
    heightEnd = image.getHeight() - 1;
}
else {
    widthStart = image.getWidth()/2 + 1;
    widthEnd = image.getWidth() - 1;
    heightStart = image.getHeight()/2 + 1;
    heightEnd = image.getHeight() - 1;
}
```

Dupa:

```
ImageFactory imageFactory = new ImageFactory();
ImageSize imageSize = imageFactory.createSize(this.position, image.getWidth(), image.getHeight());
widthStart = imageSize.widthStart();
widthEnd = imageSize.widthEnd();
heightStart = imageSize.heightStart();
heightEnd = imageSize.heightEnd();
```

Bibliografie: <https://www.geeksforgeeks.org/factory-method-design-pattern-in-java/>