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1  /*
2  -----
3  Laboratoire : labo_01
4  Fichier      : rectangle.cpp
5  Auteur(s)    : Emmanuelle Comte et David Gallay
6  Date         : 24.02.2020
7
8  But          : Function definition for header rectangle.h
9  Remarque(s) :
10 Compileur    : MinGW-g++ 6.3.0 and g++ 7.4.0
11 -----*/
12
13 #include "rectangle.h"
14
15 using namespace std;
16
17 Rectangle::Rectangle(double width, double height, const Color& color): mWidth(width),
mHeight(height), mColor(color) {
18
19 }
20
21 Rectangle::Rectangle(const Color& color): Rectangle() {
22     setColor(color);
23 }
24
25 Rectangle::Rectangle(Color::Code code): Rectangle(Color(code)) {
26
27 }
28
29 double Rectangle::getHeight() const {
30     return mHeight;
31 }
32
33 double Rectangle::getWidth() const {
34     return mWidth;
35 }
36
37 double Rectangle::getSurface() const {
38     return mWidth * mHeight;
39 }
40
41 Color Rectangle::getColor() const {
42     return mColor;
43 }
44
45 Rectangle& Rectangle::setHeight(double height) {
46     mHeight = height;
47     return *this;
48 }
49
50 Rectangle& Rectangle::setWidth(double width) {
51     mWidth = width;
52     return *this;
53 }
54
55 Rectangle& Rectangle::setColor(const Color& color) {
56     mColor = color;
57     return *this;
58 }
59
60 Rectangle& Rectangle::setColor(Color::Code color) {
61     setColor(Color(color));
62     return *this;
63 }
64
65 ostream& Rectangle::display(ostream& stream) const {
66     return stream << "Rectangle Width: " << mWidth
67         << ", Height: " << mHeight
68         << ", Color: " << mColor;
69 }
70

```

```
71 ostream& operator<<(ostream& stream, const Rectangle& Rectangle) {  
72     return Rectangle.display(stream);  
73 }  
74
```