```cpp
1    #include "color.h"
2
3    using namespace std;
4
5    Color::Color(Code code): mCode(code) {
6
7    }
8
9    Color::Code Color::getColorCode() const {
10       return mCode;
11   }
12
13   Color& Color::setColor(Code code) {
14       mCode = code;
15       return *this;
16   }
17
18   string Color::getName() const {
19       return toString(mCode);
20   }
21
22   string toString(const Color::Code& code) {
23       switch (code)
24       {
25           case Color::Code::WHITE:
26               return "white";
27           case Color::Code::BLUE:
28               return "blue";
29           case Color::Code::GREEN:
30               return "green";
31           case Color::Code::RED:
32               return "red";
33           case Color::Code::BLACK:
34               return "black";
35
36           default:
37               return "unknown";
38       }
39       return "unknown";
40   }
41
42   ostream& Color::display(ostream& stream) const {
43       return stream << getName();
44   }
45
46   ostream& operator<<(ostream& stream, const Color& color) {
47       return color.display(stream);
48   }
49
```