

GUI Challenge

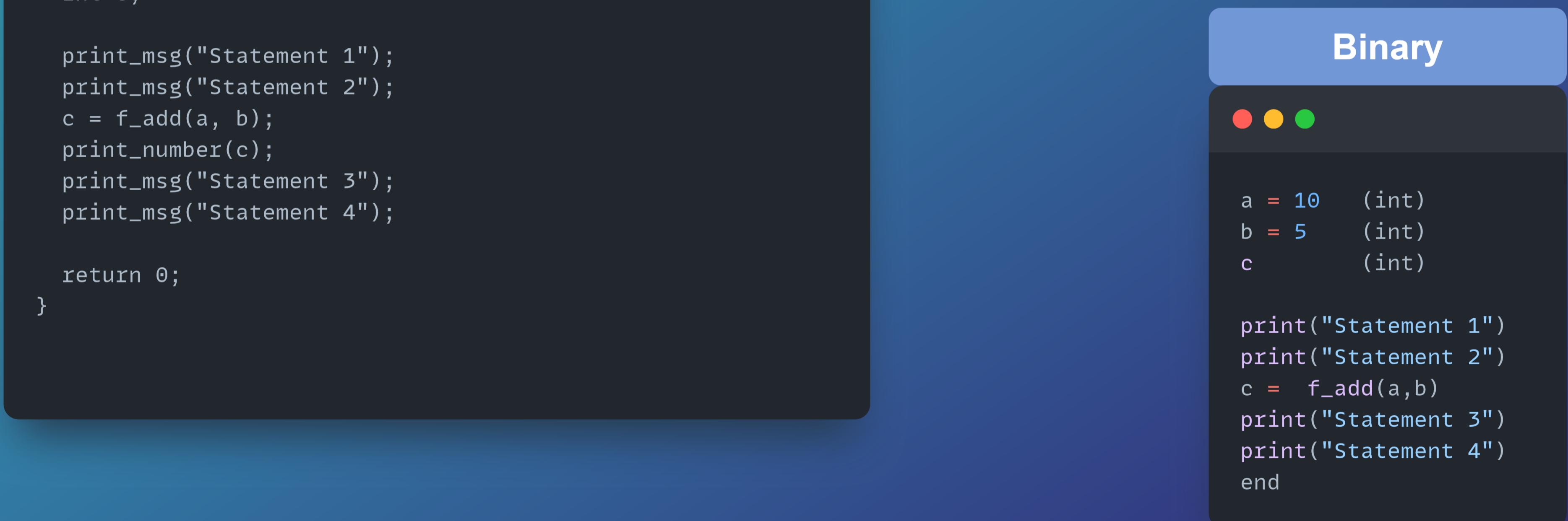
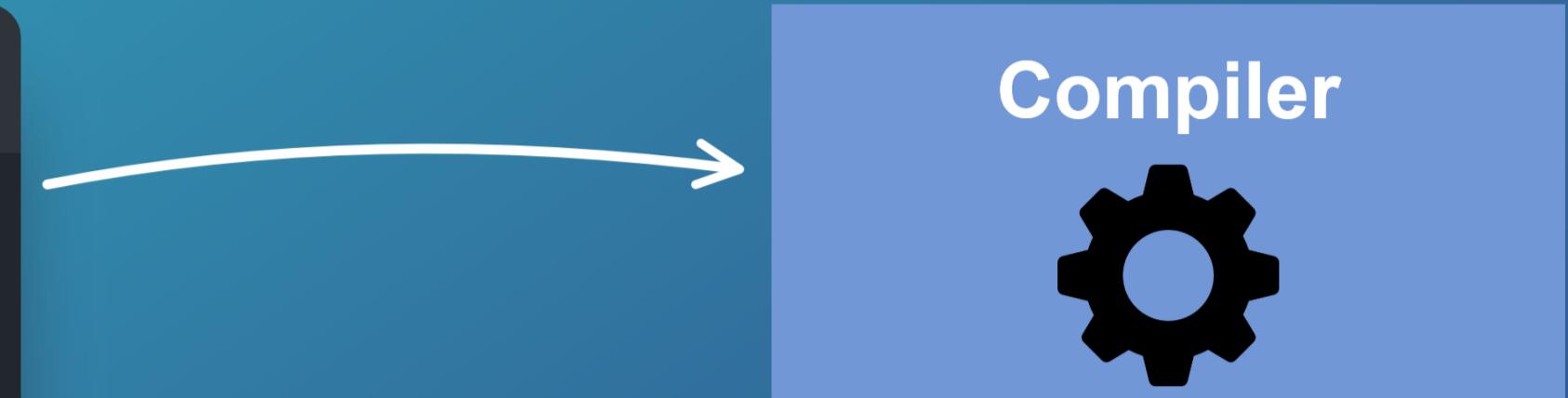


```
import utilities;

int main()
{
    int a = 10;
    int b = 5;
    int c;

    print_msg("Statement 1");
    print_msg("Statement 2");
    c = f_add(a, b);
    print_number(c);
    print_msg("Statement 3");
    print_msg("Statement 4");

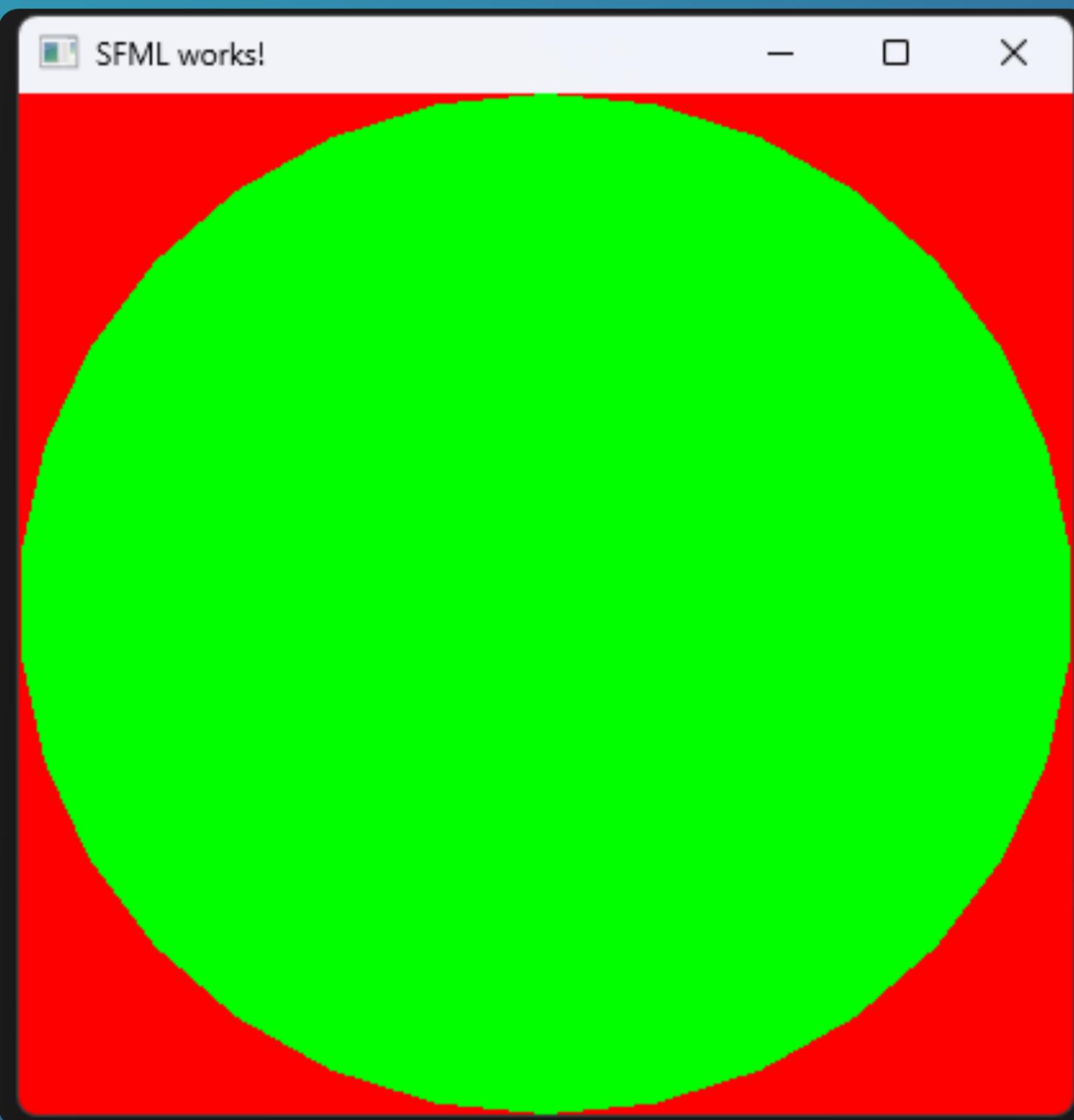
    return 0;
}
```



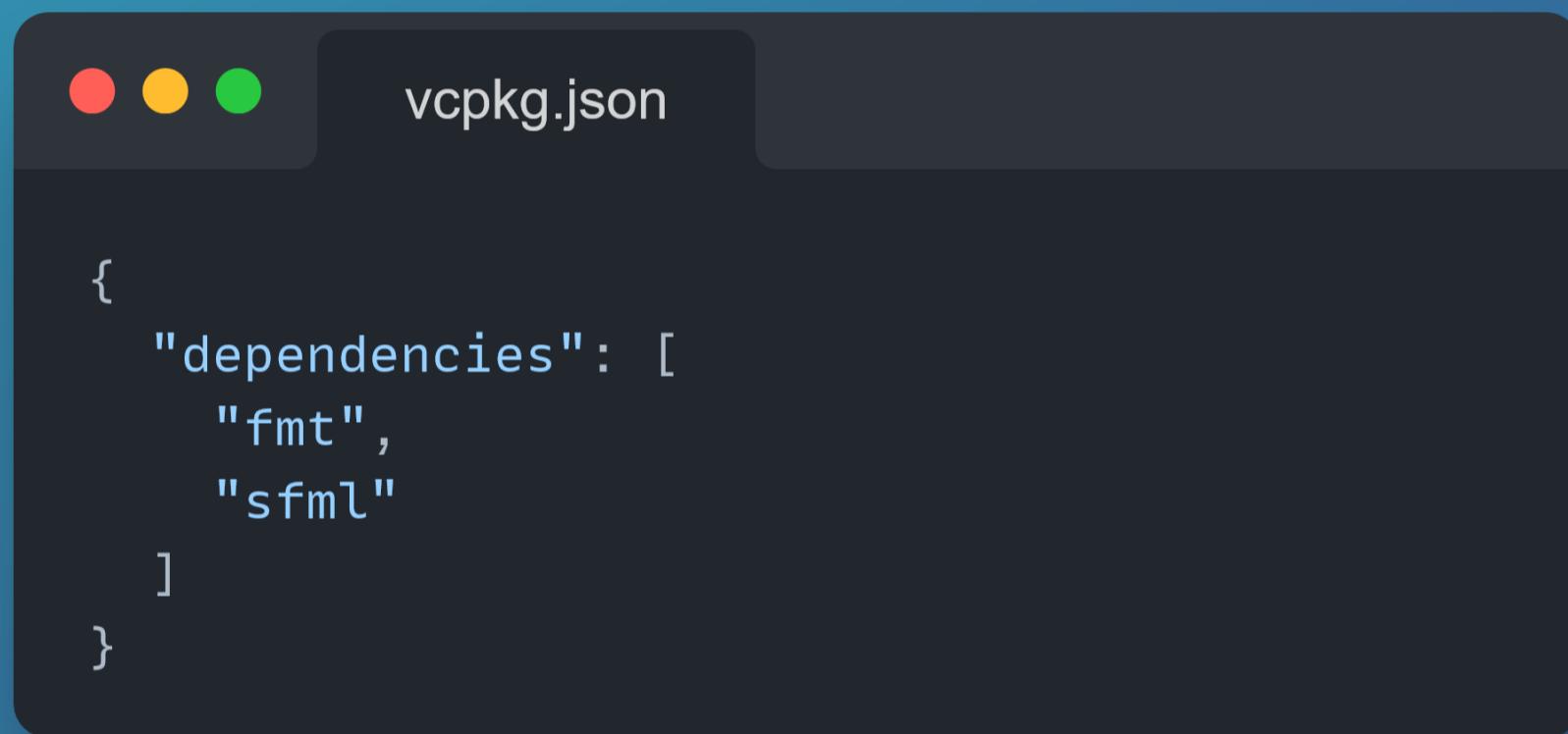
```
a = 10      (int)
b = 5       (int)
c          (int)

print("Statement 1")
print("Statement 2")
c = f_add(a,b)
print("Statement 3")
print("Statement 4")
end
```

GUI Challenge



Bring in SFML



Bring in SFML



CMakeLists.txt

```
#The root CMakeLists.txt file.
cmake_minimum_required(VERSION 3.28)

set(CMAKE_TOOLCHAIN_FILE "$ENV{VCPKG_ROOT}/scripts/buildsystems/vcpkg.cmake" CACHE STRING "Vcpkg toolchain file")

#The project name is set here. In this case it's Rocket, but you can change it to whatever you want.
project(Rocket VERSION 1.0.0 LANGUAGES CXX)

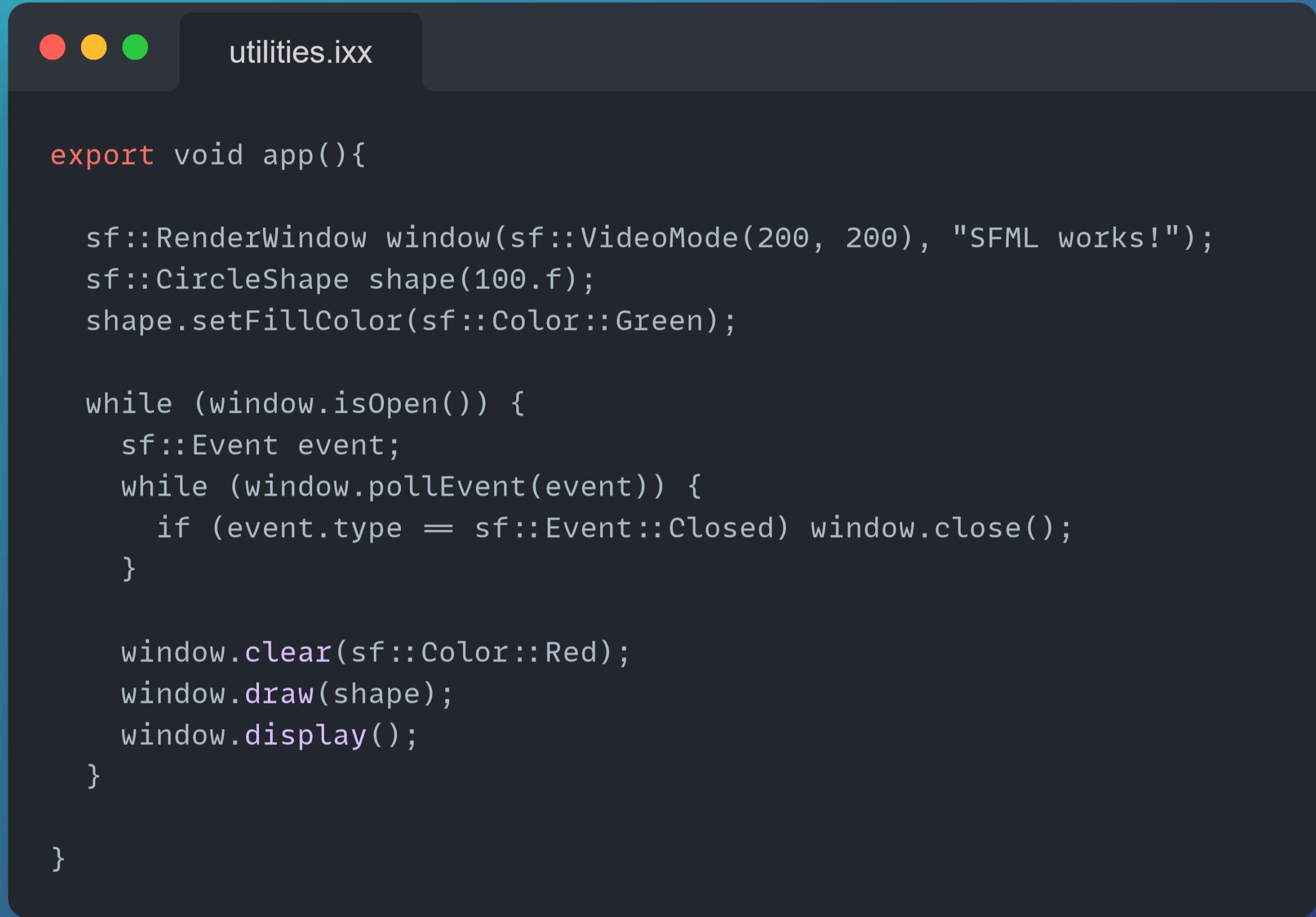
#Require C++23
set(CXX_STANDARD_REQUIRED ON) #Make C++23 a hard requirement
set(CMAKE_CXX_STANDARD 23) # Default C++ standard for targets
set(CMAKE_CXX_SCAN_FOR_MODULES ON)

find_package(fmt CONFIG REQUIRED)
find_package(SFML COMPONENTS system window graphics CONFIG REQUIRED)

#We're using the project name as the target name, but you can change it to make them different.
#With this setup, the name of the executable will be the same as the project name.
add_executable(${PROJECT_NAME} main.cpp)

target_sources(${PROJECT_NAME}
    PUBLIC
        FILE_SET CXX_MODULES FILES
            utilities.ixx
)
target_link_libraries(${PROJECT_NAME} PRIVATE fmt::fmt sfml-graphics)
```

Use in SFML



```
utilities.ixx

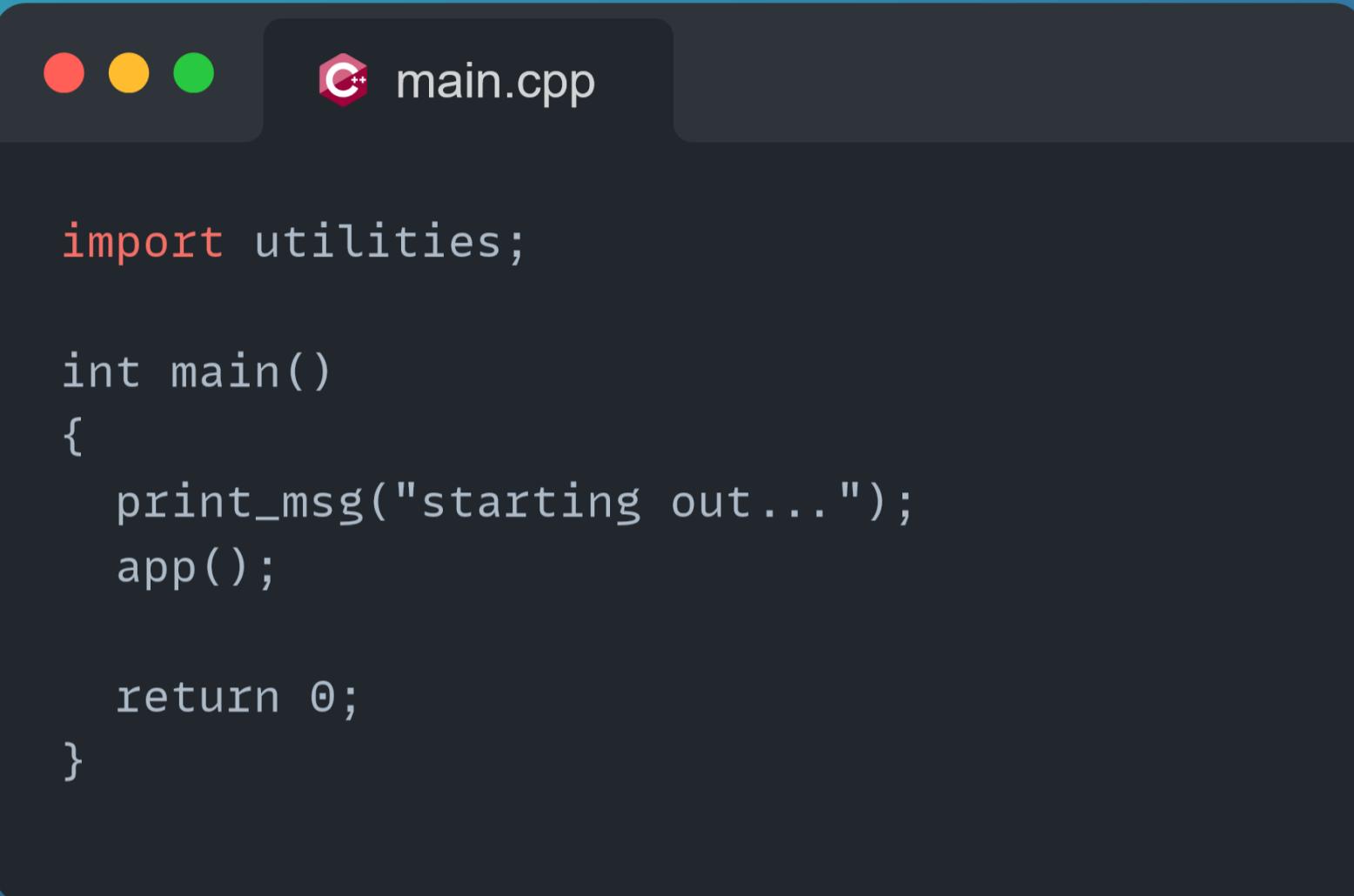
export void app(){

    sf::RenderWindow window(sf::VideoMode(200, 200), "SFML works!");
    sf::CircleShape shape(100.f);
    shape.setFillColor(sf::Color::Green);

    while (window.isOpen()) {
        sf::Event event;
        while (window.pollEvent(event)) {
            if (event.type == sf::Event::Closed) window.close();
        }

        window.clear(sf::Color::Red);
        window.draw(shape);
        window.display();
    }
}
```

Use in SFML



A screenshot of a terminal window titled "main.cpp". The window has three colored status indicators (red, yellow, green) in the top-left corner. The code inside the terminal is:

```
import utilities;

int main()
{
    print_msg("starting out...");
    app();

    return 0;
}
```

