>>> Programação Orientada a Objetos (POO)

... Interface Gráfica - PONG

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>>> SFML

```
MeuPrograma::MeuPrograma()
    : window(sf::VideoMode(400, 200), "Exemplo de SFML") {
    if (!font.loadFromFile("/usr/share/fonts/truetype/dejavu/DejaVuSans.ttf")) {
        std::cerr << "Erro ao carregar a fonte!" << std::endl;
    }

    label.setFont(font);
    label.setString("Digite seu nome:");
    label.setCharacterSize(20);
    label.setFillColor(sf::Color::White);
    label.setPosition(10, 10);

    inputBox.setSize(sf::Vector2f(380, 30));
    inputBox.setFillColor(sf::Color(50, 50, 50));
    inputBox.setPosition(10, 50);

    button.setSize(sf::Vector2f(150, 30));
    button.setFillColor(sf::Color::Red);
    button.setPosition(150, 100);

    buttonText.setFont(font);
    buttonText.setString("Clique aqui");
    buttonText.setCharacterSize(20);
    buttonText.setFillColor(sf::Color::White);
    buttonText.setPosition(160, 103);

    outputText.setFont(font);
    outputText.setCharacterSize(20);
    outputText.setFillColor(sf::Color::White);
    outputText.setPosition(10, 150);
}
```

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>>> SFML

```cpp
void MeuPrograma::handleEvents() {
    sf::Event event;
    while (window.pollEvent(event)) {
        if (event.type == sf::Event::Closed) {
            window.close();
        } else if (event.type == sf::Event::MouseButtonPressed) {
            if (event.mouseButton.button == sf::Mouse::Left) {
                if (button.getGlobalBounds().contains(event.mouseButton.x, event.mouseButton.y)) {
                    outputText.setString(L"Olá, " + inputString + L"!");
                }
            }
        } else if (event.type == sf::Event::TextEntered) {
            // Permite digitar na caixa de entrada
            if (event.text.unicode == '\b') { // Backspace
                if (!inputString.empty()) {
                    inputString.pop_back();
                }
            } else if (event.text.unicode < 128) { // Verifica se o caractere é ASCII
                inputString += static_cast<wchar_t>(event.text.unicode);
            }
        }
    }
}
```

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>>> SFML

```
void MeuPrograma::render() {
    window.clear(sf::Color::Black);

    // Desenha o rótulo e a caixa de entrada
    window.draw(label);
    window.draw(inputBox);

    sf::Text inputText;
    inputText.setFont(font);
    inputText.setString(inputString); // Texto que o usuário digitou
    inputText.setCharacterSize(20);
    inputText.setFillColor(sf::Color::White);
    inputText.setPosition(inputBox.getPosition().x + 5, inputBox.getPosition().y + 5); // Pequena margem

    window.draw(inputText); // Desenha o texto digitado

    window.draw(button);
    window.draw(buttonText);

    window.draw(outputText);

    window.display();
}
```

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>>> SFML

```
void MeuPrograma::run() {
    while (window.isOpen()) {
        handleEvents();
        render();
    }
}

int main() {
    MeuPrograma programa;
    programa.run();
    return 0;
}
```

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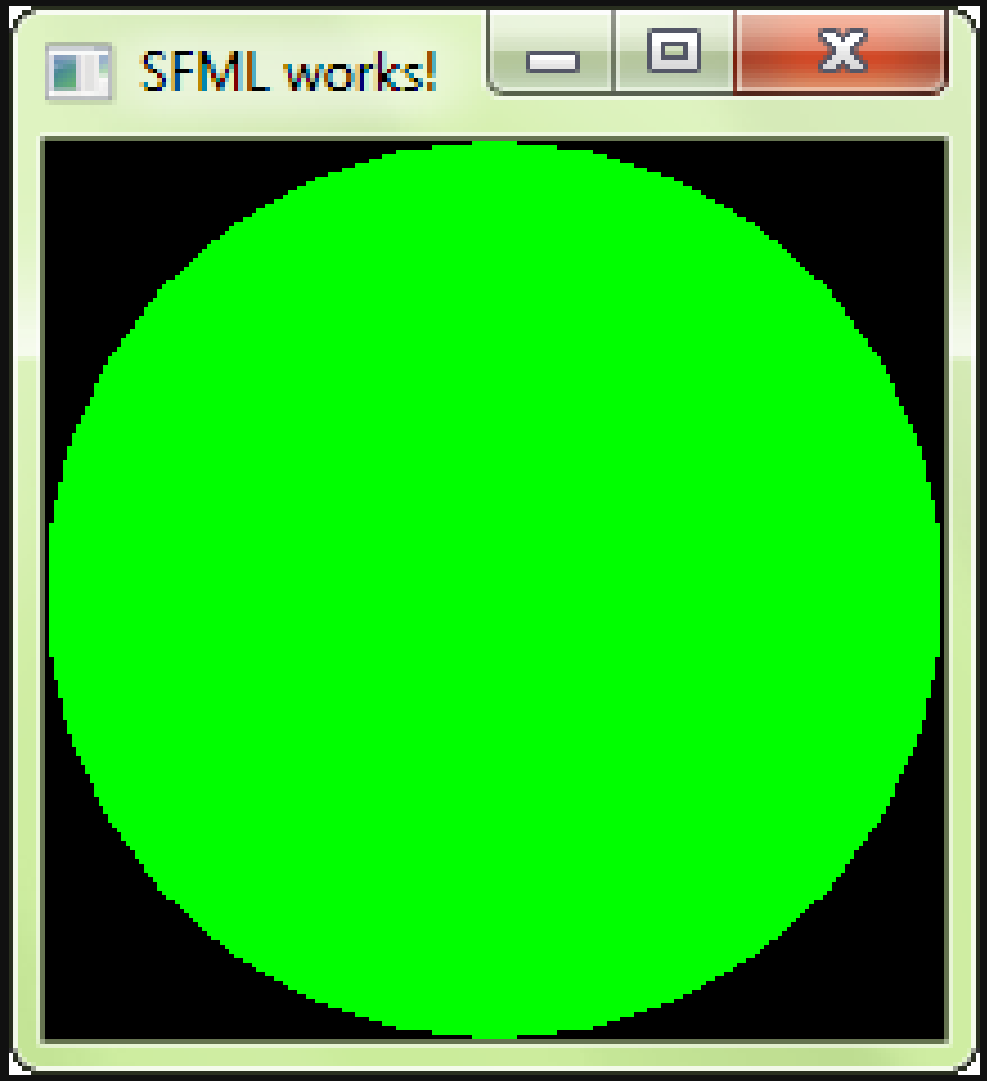
>>> SFML - Exemplo



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>>> SFML - Exemplo

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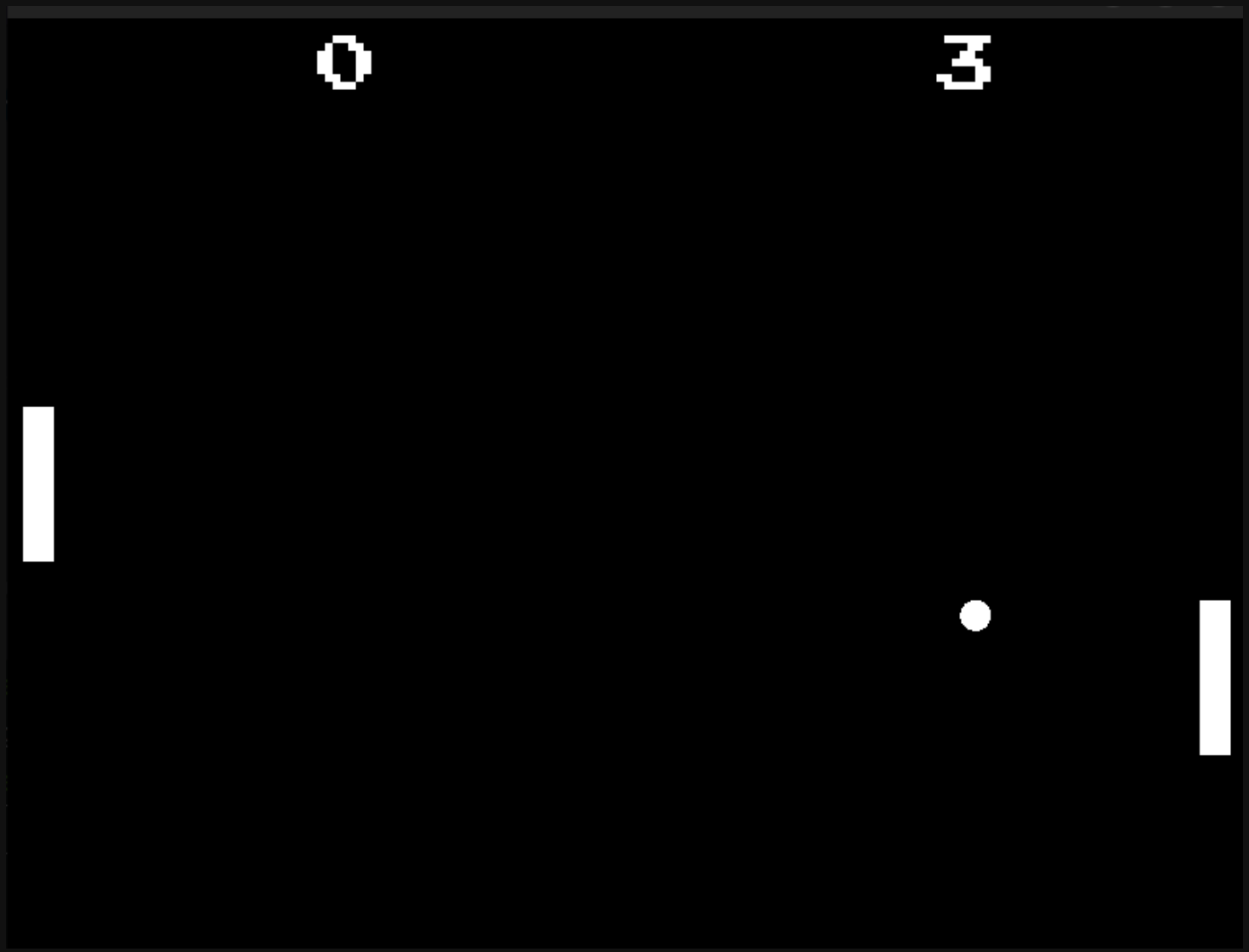
>>> SFML - Jogo - Vamos implementar?



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