```
1: // Copyright 2023 Thomas O'Connor
   2: #include "Checkers.hpp"
   3:
   4: int main(int argc, char* argv[]) {
  5:
          // Create game
  6:
          Checkers Game;
          bool performWinConditionOnce = 1;
   7:
   8:
          // Rednder the window using the appropriate game dimensions
   9:
          sf::RenderWindow window
  10:
          (sf::VideoMode(TILE_SIZE * BOARD_DIMENSIONS + TILE_SIZE,
  11:
              TILE_SIZE * BOARD_DIMENSIONS + TILE_SIZE), "Checkers");
  12:
          window.setFramerateLimit(120);
  13:
  14:
          while (window.isOpen()) {
  15:
              // Process events
 16:
              sf::Event event;
 17:
              while (window.pollEvent(event)) {
 18:
                  // Close window: exit
 19:
                  if (event.type == sf::Event::Closed) window.close();
  20:
  21:
              if (!Game.isWon()) {
                  // Get Keyboard input and impliment correct movement
  22:
  23:
                  window.clear();
  24:
                  // Detect button press
  25:
                  if (sf::Mouse::isButtonPressed(sf::Mouse::Left) &&
  26:
                      mouseInGameBounds(sf::Mouse::getPosition(window))) {
  27:
                      if (Game.nothingSelected())
  28:
                          Game.selectPiece(sf::Mouse::getPosition(window));
  29:
                      else
  30:
                          Game.movePiece(sf::Mouse::getPosition(window));
  31:
                  }
  32:
                  // Deselect piece
  33:
                  if (sf::Mouse::isButtonPressed(sf::Mouse::Right) &&
  34:
                      mouseInGameBounds(sf::Mouse::getPosition(window)))
  35:
                      Game.deselectPiece();
  36:
                  // Draw the basic gameboard
  37:
                  window.draw(Game);
  38:
                  // if piece selected, draw move assist
  39:
                  if (!Game.nothingSelected())
  40:
                      Game.visualMoveAssist(window);
                  window.display();
  41:
              // if you've won, perform win fanfare
  42:
  43:
              } else if (performWinConditionOnce) {
                  // Draw the win state
  44:
  45:
                  std::string winString;
  46:
                  if (Game.getWinner())
  47:
                      winString = "Red wins";
  48:
                  else
  49:
                      winString = "Black wins";
  50:
                  sf::Font font;
                  font.loadFromFile("checkers/arial.ttf");
  51:
  52:
                  sf::Text winText(winString, font, 30);
  53:
                  winText.setFillColor(sf::Color::White);
  54:
                  // Centers text to middle of screen
  55:
                  winText.setPosition(sf::Vector2f(TILE_SIZE * 3.5, TILE_SIZE *
3.9));
  56:
                  window.draw(winText);
                  window.display();
  57:
  58:
                  // Play win sound after screen display
  59:
                  Game.playSound();
  60:
                  // Ensures win sound is only performed once
  61:
                  performWinConditionOnce = 0;
  62:
              // Exit on (X) keypress
  63:
              if (sf::Keyboard::isKeyPressed(sf::Keyboard::X)) window.close();
  64:
```

1