GameFrame.java

```java
1   import javax.swing.*;
2   import java.awt.*;
3
4   public class GameFrame extends JFrame {
5       private CardLayout cardLayout;
6       private JPanel mainPanel;
7       private MainMenuPanel mainMenuPanel;
8       private GamePanel gamePanel;
9       private ScoreboardPanel scoreboardPanel;
10
11      // Constructor to initialize game frame and panels
12      public GameFrame() {
13          cardLayout = new CardLayout();
14          mainPanel = new JPanel(cardLayout);
15
16          // Initialize main menu panel, game panel, and scoreboard panel
17          mainMenuPanel = new MainMenuPanel(this);
18          gamePanel = new GamePanel(this);
19          scoreboardPanel = new ScoreboardPanel(this);
20
21          // Add panels to main panel with card layout
22          mainPanel.add(mainMenuPanel, "MainMenu");
23          mainPanel.add(gamePanel, "Game");
24          mainPanel.add(scoreboardPanel, "Scoreboard");
25
26          setContentPane(mainPanel); // Set main panel as content pane
27          cardLayout.show(mainPanel, "MainMenu"); // Show main menu panel initially
28          getContentPane().setBackground(new Color(224, 255, 255)); // Set background color to light cyan
29      }
30
31      // Show game panel
32      public void showGamePanel() {
33          cardLayout.show(mainPanel, "Game");
34      }
35
36      // Show main menu panel
37      public void showMainMenuPanel() {
38          cardLayout.show(mainPanel, "MainMenu");
39      }
40
```

```java
41        // Show scoreboard panel
42        public void showScoreboardPanel() {
43            scoreboardPanel = new ScoreboardPanel(this); // Reload scoreboard panel
44            mainPanel.add(scoreboardPanel, "Scoreboard"); // Add scoreboard panel to main panel
45            cardLayout.show(mainPanel, "Scoreboard"); // Show scoreboard panel
46        }
47
48        // Set player names in game panel
49        public void setPlayerNames(String player1, String player2) {
50            gamePanel.setPlayerNames(player1, player2);
51        }
52    }
53
```