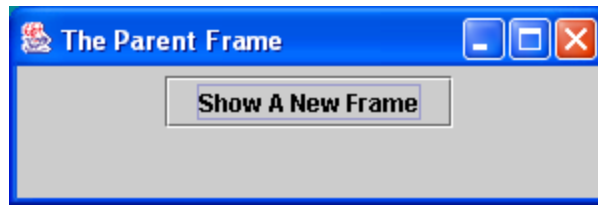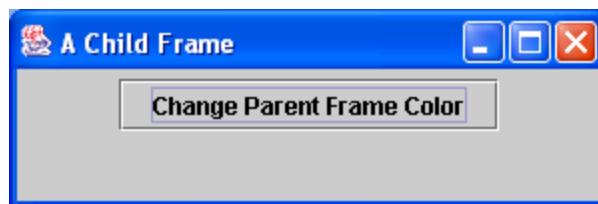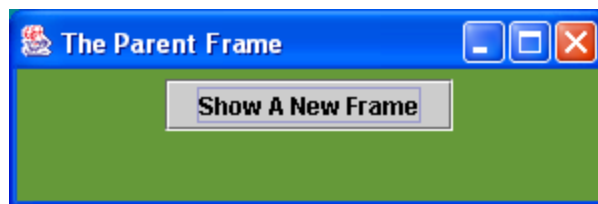Multiple Frames

Write a Java application which initially shows this frame with a button in the frame:

Each time the user clicks on the button, a new frame appears. If user closes a child frame, it disappears but the parent frame and other child frames remain.

When a user clicks the button in a child frame, the background color in the parent frame is changed into a randomly chosen one:

When the parent window is closed, the program is terminated.