

```
1 /*
2
3 Jared Dyreson
4 CWID: 889546529
5 JCardLayout.java -> Mad Lib program that uses CardLayout and BorderLayout (FRONTEND AND BACKEND)
6
7 */
8
9 import javax.swing.*;
10 import java.text.MessageFormat;
11 import java.awt.*;
12 import javax.swing.JFrame;
13 import java.awt.event.*;
14 import java.lang.Math;
15
16 import java.io.*;
17 import java.util.*;
18
19 public class JCardLayout extends JFrame implements ActionListener{
20     JButton next = new JButton("Next");
21     JButton previous = new JButton("Previous");
22     JButton exit = new JButton("Exit");
23
24     String[] questions = {"Please enter your name", "Please enter a verb ending in -ing", "Please enter a plural noun", "Please enter an adjective"};
25     JTextField[] question_reponses = new JTextField[4];
26
27     JPanel response_inquiry = new JPanel();
28     JPanel story_one_panel = new JPanel();
29     JPanel main_frame = new JPanel();
30
31     JLabel greetings = new JLabel("Welcome to MatLab... I mean Mad Libs");
32
33     JTextArea story_one = new JTextArea("FILLER TEXT");
34
35     CardLayout card_layout = new CardLayout();
36
37     public JCardLayout(){
38         super("Mad Libs for Mad Lads and Gals");
39
40         setLayout(card_layout);
41         setSize(500, 500);
42         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
43         greetings.setFont(new Font("Times New Roman", Font.BOLD, 20));
44
45         main_frame.setLayout(new BorderLayout(2, 4));
46         story_one_panel.setLayout(new BorderLayout(0, 3));
47
48         next.addActionListener(this);
49         previous.addActionListener(this);
50         exit.addActionListener(this);
51
52         story_one.setEditable(false);
53
54         story_one.setFont(new Font("Times New Roman", Font.BOLD, 14));
55
56         response_inquiry.setLayout(new FlowLayout());
57
58
59         // get an array of text fields based on the amount of questions asked
60
61         for(int i = 0 ; i < questions.length; ++i){
62             question_reponses[i] = new JTextField(12);
63             response_inquiry.add(new JLabel(questions[i]));
64             response_inquiry.add(question_reponses[i]);
65         }
66
67         // this is the first page container and all of it's elements
68         main_frame.add(greetings, BorderLayout.NORTH);
69         main_frame.add(response_inquiry, BorderLayout.CENTER);
70         main_frame.add(next, BorderLayout.SOUTH);
71
72         /// this is the story panel with all of it's elements
73
74         story_one_panel.add(greetings, BorderLayout.NORTH);
75         story_one_panel.add(previous, BorderLayout.WEST);
76         story_one_panel.add(exit, BorderLayout.EAST);
77         story_one_panel.add(story_one, BorderLayout.CENTER);
78
79         // these panels get added directly to the master JFrame
80         add(main_frame, "Pane 1");
81         add(story_one_panel, "Story Pane 1");
82     }
83
84     @Override
85     public void actionPerformed(ActionEvent event){
86         Object source = event.getSource();
87         if(source == next){
88             // this makes it easier to fill in the MessageFormat
89             String name = question_reponses[0].getText();
90             String verb = question_reponses[1].getText();
91             String noun = question_reponses[2].getText();
92             String adjective = question_reponses[3].getText();
93
94             String message = "Filler Text";
95             // randomly choose which message to display
96             if(Math.random() < 0.5){
97                 message = java.text.MessageFormat.format("{0} a {1} can be fun...\nIf you follow {2} {3} advice:\nBefore {4}, always stick your {5}\nout t
98 he window!", verb, noun, name, adjective, verb, noun);
99             }
100             else{
101                 message = java.text.MessageFormat.format("Hi there, all you {0} little boys and girls!\nThis is your old TV buddy {1}\nWith another {2} ho
102 ur program!\n{3} {4} for you all!", adjective, name, adjective, verb, noun);
103             }
104             // after generating the string, update the story text
105
106             story_one.setText(message);
107             // cycle to that page
108             card_layout.show(getContentPane(), "Story Pane 1");
109         }
110         else if(source == previous){
111             // go back to the original prompt
112             card_layout.show(getContentPane(), "Pane 1");
113         }
114         else{
115             // kill the window when exit button is pressed
116             this.dispose();
117         }
118     }
119
120     public static void main(String[] args){
121         // Auto generated with caffine and avahi-daemon.service
122         JCardLayout l = new JCardLayout();
123         l.setVisible(true);
124     }
125 }
```

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Bot

