

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <form xmlns="http://www.intellij.com/uidesigner/form/" version="1" bind-to-class="DynamicButtonsGUI">
3   <grid id="27dc6" binding="PanelMain" layout-manager="GridLayoutManager" row-count="2" column-count="3" same-
   size-horizontally="false" same-size-vertically="false" hgap="-1" vgap="-1">
4     <margin top="20" left="20" bottom="20" right="20"/>
5     <constraints>
6       <xy x="20" y="20" width="500" height="400"/>
7     </constraints>
8     <properties/>
9     <border type="none"/>
10    <children>
11      <vspacer id="a48da">
12        <constraints>
13          <grid row="1" column="2" row-span="1" col-span="1" vsize-policy="6" hsize-policy="1" anchor="0" fill
            ="2" indent="0" use-parent-layout="false"/>
14        </constraints>
15      </vspacer>
16      <grid id="a4830" binding="PanelDynamicButtons" layout-manager="GridLayoutManager" row-count="1" column-
        count="1" same-size-horizontally="false" same-size-vertically="false" hgap="-1" vgap="-1">
17        <margin top="0" left="0" bottom="0" right="0"/>
18        <constraints>
19          <grid row="1" column="0" row-span="1" col-span="2" vsize-policy="3" hsize-policy="3" anchor="0" fill
            ="3" indent="0" use-parent-layout="false"/>
20        </constraints>
21        <properties/>
22        <border type="none"/>
23        <children/>
24      </grid>
25      <component id="d2671" class="javax.swing.JTree" binding="TreeOptions">
26        <constraints>
27          <grid row="0" column="0" row-span="1" col-span="1" vsize-policy="6" hsize-policy="6" anchor="0" fill
            ="3" indent="0" use-parent-layout="false">
28            <preferred-size width="150" height="50"/>
29          </grid>
30        </constraints>
31        <properties>
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32         <dropMode value="USE_SELECTION"/>
33         <editable value="false"/>
34     </properties>
35 </component>
36 <grid id="a1159" binding="PanelGenerateButtons" layout-manager="GridLayoutManager" row-count="3" column-
count="1" same-size-horizontally="false" same-size-vertically="false" hgap="-1" vgap="-1">
37     <margin top="0" left="0" bottom="0" right="0"/>
38     <constraints>
39         <grid row="0" column="1" row-span="1" col-span="2" vsize-policy="3" hsize-policy="3" anchor="0" fill
="3" indent="0" use-parent-layout="false"/>
40     </constraints>
41     <properties/>
42     <border type="none"/>
43     <children>
44         <component id="1d5c1" class="javax.swing.JLabel">
45             <constraints>
46                 <grid row="0" column="0" row-span="1" col-span="1" vsize-policy="0" hsize-policy="0" anchor="8"
fill="0" indent="0" use-parent-layout="false"/>
47             </constraints>
48             <properties>
49                 <enabled value="false"/>
50                 <font size="16"/>
51                 <text value="How many buttons do you want ? "/>
52             </properties>
53         </component>
54         <component id="28fd1" class="javax.swing.JTextField" binding="TextFieldButtonsCount">
55             <constraints>
56                 <grid row="1" column="0" row-span="1" col-span="1" vsize-policy="0" hsize-policy="6" anchor="8"
fill="1" indent="0" use-parent-layout="false">
57                 <preferred-size width="150" height="-1"/>
58             </grid>
59             </constraints>
60             <properties/>
61         </component>
62         <component id="27437" class="javax.swing.JButton" binding="ButtonGenerateButtons">
63             <constraints>

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64         <grid row="2" column="0" row-span="1" col-span="1" vsize-policy="0" hsize-policy="3" anchor="0"  
fill="1" indent="0" use-parent-layout="false"/>  
65     </constraints>  
66     <properties>  
67         <text value="Generate Buttons"/>  
68     </properties>  
69 </component>  
70 </children>  
71 </grid>  
72 </children>  
73 </grid>  
74 </form>  
75
```

```
1 import javax.swing.*;
2 import javax.swing.tree.DefaultMutableTreeNode;
3 import javax.swing.tree.DefaultTreeModel;
4 import javax.swing.tree.TreePath;
5 import java.awt.*;
6 import java.awt.event.MouseAdapter;
7 import java.awt.event.MouseEvent;
8 import java.awt.event.MouseListener;
9
10 public class DynamicButtonsGUI extends JFrame{
11     private JTree TreeOptions;
12     private JPanel PanelDynamicButtons;
13     private JPanel PanelMain;
14     private JTextField TextFieldButtonsCount;
15     private JButton ButtonGenerateButtons;
16     private JPanel PanelGenerateButtons;
17
18
19     public DynamicButtonsGUI(){
20         this.add(PanelMain);
21         this.setSize(1000,1000);
22         this.setTitle("Dynamic Buttons Homework");
23         this.setDefaultCloseOperation(EXIT_ON_CLOSE);
24
25         PanelDynamicButtons.setLayout(new GridLayout(10,10));
26
27         PanelDynamicButtons.setVisible(false);
28         PanelGenerateButtons.setVisible(false);
29
30         DefaultMutableTreeNode settings=
31             new DefaultMutableTreeNode("Ayarlar");
32         DefaultMutableTreeNode closeApp=
33             new DefaultMutableTreeNode("Kapat");
34
35         DefaultMutableTreeNode generateButtons=
36             new DefaultMutableTreeNode("Buton Oluşturma Paneli Aç");
```

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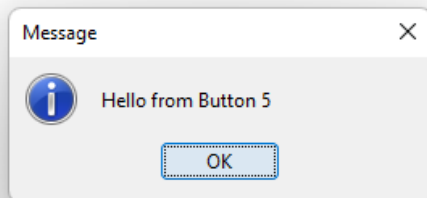
37
38     settings.add(closeApp);
39     settings.add(generateButtons);
40
41     DefaultTreeModel model=new DefaultTreeModel(settings);
42     TreeOptions.setModel(model);
43
44     MouseListener ml = new MouseAdapter() {
45         public void mousePressed(MouseEvent e) {
46             int selRow = TreeOptions.getRowForLocation(e.getX(), e.getY());
47             TreePath selPath = TreeOptions.getPathForLocation(e.getX(), e.getY());
48             if(selRow != -1) {
49                 if(e.getClickCount() == 2) {
50                     String option = TreeDoubleClickStringReturn(selPath);
51                     if (option.equals("Buton Oluşturma Paneli Aç"))
52                         PanelGenerateButtons.setVisible(true);
53                     else if(option.equals("Kapat"))
54                         System.exit(1);
55                 }
56             }
57         }
58     };
59
60     TreeOptions.addMouseListener(ml);
61
62     ButtonGenerateButtons.addActionListener(e->{
63         try{
64             GenerateButtons(TextFieldButtonsCount.getText());
65         } catch (Exception exception) {
66             JOptionPane.showMessageDialog(this,exception.getMessage());
67         }
68
69         PanelDynamicButtons.setVisible(true);
70
71     });
72

```

```
73     }
74
75     public void GenerateButtons(String countText) throws Exception{
76
77         PanelDynamicButtons.removeAll();
78         PanelDynamicButtons.revalidate();
79         PanelDynamicButtons.repaint();
80
81         if (countText.equals(""))
82             throw new NullPointerException("Lütfen değer giriniz");
83         else if (Integer.parseInt(countText) < 0)
84             throw new IllegalArgumentException("Lütfen 0'dan büyük rakam giriniz");
85
86         int count = Integer.parseInt(countText);
87
88         for(int i = 0; i < count ; i++){
89             JButton button = new JButton();
90             button.setText("Button"+i);
91             String message = "Hello from Button "+i;
92             button.addActionListener(e->{
93                 JOptionPane.showMessageDialog(this,message);
94             });
95             button.setSize(100,100);
96             PanelDynamicButtons.add(button);
97         }
98     }
99
100     private String TreeDoubleClickStringReturn(TreePath selPath) {
101         return selPath.getLastPathComponent().toString();
102     }
103
104     public static void main(String[] args){
105         //Set Windows's Component To Your Project
106         try {
107             UIManager.setLookAndFeel(UIManager.getSystemLookAndFeelClassName());
108         } catch (ClassNotFoundException e) {
```

```
109         e.printStackTrace();
110     } catch (InstantiationException e) {
111         e.printStackTrace();
112     } catch (IllegalAccessException e) {
113         e.printStackTrace();
114     } catch (UnsupportedLookAndFeelException e) {
115         e.printStackTrace();
116     }
117
118
119     //Set UI Thread to another thread
120     SwingUtilities.invokeLater(() -> {
121         DynamicButtonsGUI gui = new DynamicButtonsGUI();
122         gui.setVisible(true);
123     });
124 }
125 }
126
```

- Ayarlar
 - Kapat
 - Buton Oluşturma Paneli Aç



How many buttons do you want ?

Generate Buttons

Button0

Button1

Button2

Button3

Button4

Button5

Button6

Button7

Button8

Button9

Button10

Button11

Button12

Button13

Button14

Button15

Button16

Button17

Button18

Button19