JAVA Programming 과제 – TreeNode 구현
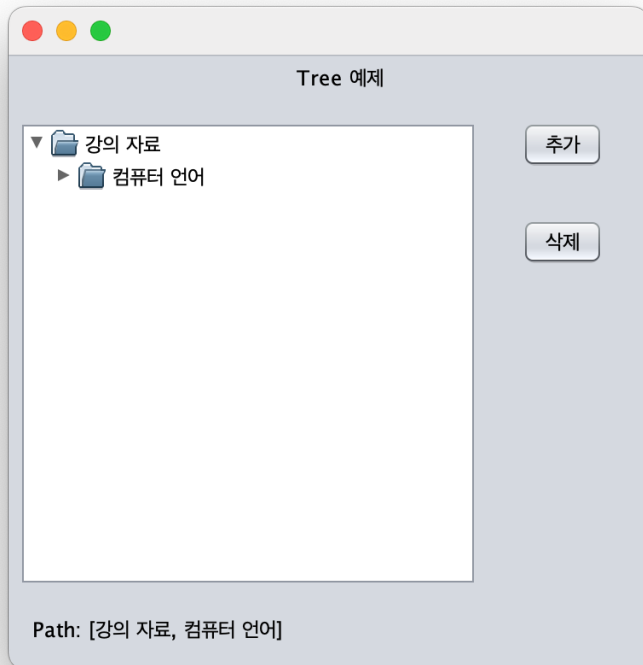
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1. 소스 코드

```java
9  import javax.swing.tree.*;
10 import java.util.*;
11
12 public class TreeNode_MainFrame extends javax.swing.JFrame {
13
14     // Setting Member Variable
15     DefaultTreeModel dftTreeModel = null;
16     DefaultTreeSelectionModel dftTreeSelectionModel = new DefaultTreeSelectionModel();
17     DefaultMutableTreeNode rootNode= new DefaultMutableTreeNode("강의 자료");
18     DefaultMutableTreeNode comNode = new DefaultMutableTreeNode("컴퓨터 언어");
19
20     public TreeNode_MainFrame() {
21         initComponents();
22
23         // Selection Mode = SINGLE_SELECTION_MODE Setting
24         dftTreeSelectionModel.setSelectionMode(1);
25
26         // Create 컴퓨터 언어 node의 childNode
27         Vector<DefaultMutableTreeNode> myVC = new Vector<>();
28         String [] objFolder = {"Java", "C#", "JSP"};
29
30         for (int idx = 0; idx < objFolder.length; idx++) {
31         // Create node object to add  Vector element
32         myVC.add(new DefaultMutableTreeNode(objFolder[idx]));
33         comNode.add(myVC.get(idx));
34         }
35
36         // Add comNode as child node of rootNode
37         rootNode.add(comNode);
38
39         //Setting rootNode as DefaultTreeModel
40         dftTreeModel = new DefaultTreeModel(rootNode);
41
42         // Setting dftTreeModel as TreeModel of jTree1
43         jTree1.setModel(dftTreeModel);
44         jTree1.setEditable(true);
45         jScrollPane1.getViewport().add(jTree1, null);
46     }
```

```java
134     private void jTree1TreeExpanded(javax.swing.event.TreeExpansionEvent evt) {
135         lblPath.setText("Path: " + evt.getPath() + "\n");
136     }
137
138     private void jTree1TreeCollapsed(javax.swing.event.TreeExpansionEvent evt) {
139         lblPath.setText("Path: " + evt.getPath() + "\n");
140     }
141
142     private void jTree1ValueChanged(javax.swing.event.TreeSelectionEvent evt) {
143         DefaultMutableTreeNode node;
144         node = (DefaultMutableTreeNode)jTree1.getLastSelectedPathComponent();
145         if (node == null) {
146             return;
147         }
148
149         lblPath.setText("Path: " + node.getUserObject() + "선택! \n");
150     }
151
```

```java
private void btnInsertActionPerformed(java.awt.event.ActionEvent evt) {
    int index = 0;   // Save the index of the "new folder" to be added

    DefaultMutableTreeNode select_Node;
    select_Node = (DefaultMutableTreeNode)jTree1.getLastSelectedPathComponent();

    DefaultMutableTreeNode newFolder = new DefaultMutableTreeNode("새 폴더");
    index = select_Node.getChildCount();
    dftTreeModel.insertNodeInto(newFolder, select_Node, index);

    jTree1.setModel(dftTreeModel);
    jTree1.setSelectionModel(dftTreeSelectionModel);
    jScrollPane1.getViewport().add(jTree1, null);
}

private void btnDeleteActionPerformed(java.awt.event.ActionEvent evt) {
    DefaultMutableTreeNode select_Node;
    select_Node = (DefaultMutableTreeNode)jTree1.getLastSelectedPathComponent();

    dftTreeModel.removeNodeFromParent(select_Node);

    jTree1.setModel(dftTreeModel);
    jTree1.setSelectionModel(dftTreeSelectionModel);
    jScrollPane1.getViewport().add(jTree1, null);
}
```
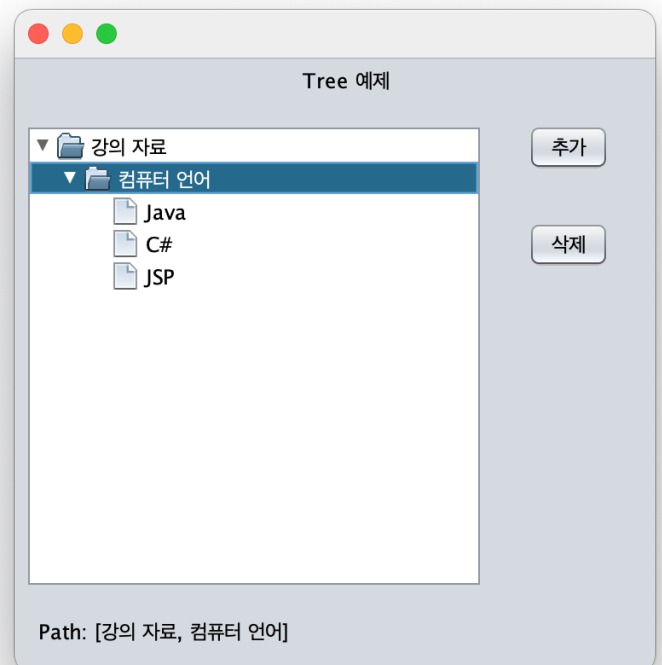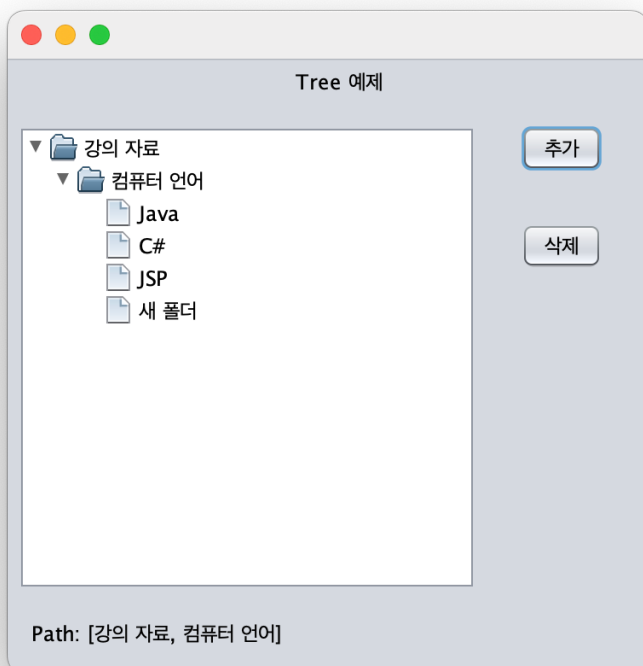
2. 실행 결과

(1) Run

```
Tree 예제
▼ 📁 강의 자료
   ▶ 📁 컴퓨터 언어
                              [추가]

                              [삭제]




Path: [강의 자료, 컴퓨터 언어]
```

(2) 컴퓨터 언어 폴더 선택

```
Tree 예제
▼ 📁 강의 자료
   ▼ 📁 컴퓨터 언어
      📄 Java
      📄 C#
      📄 JSP
                              [추가]

                              [삭제]




Path: [강의 자료, 컴퓨터 언어]
```

(3) 추가 버튼 클릭

```
Tree 예제
▼ 📁 강의 자료
   ▼ 📁 컴퓨터 언어
      📄 Java
      📄 C#
      📄 JSP
      📄 새 폴더
                              [추가]

                              [삭제]




Path: [강의 자료, 컴퓨터 언어]
```

(4) C# 폴더 선택 후 삭제 버튼 클릭

```
Tree 예제
▼ 📁 강의 자료
   ▼ 📁 컴퓨터 언어
      📄 Java
      📄 JSP
      📄 새 폴더
                              [추가]

                              [삭제]




Path: C#선택!
```