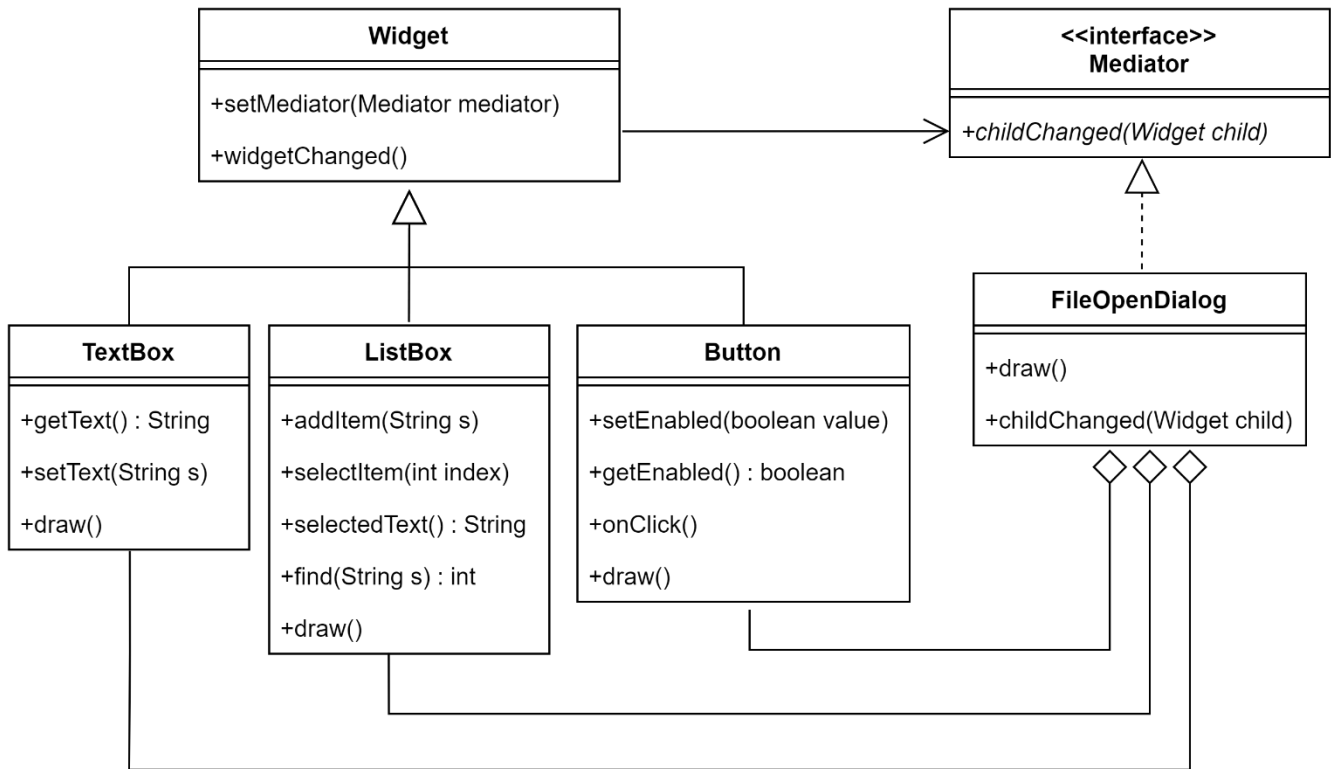


1) 개요



2) Mediator.java

```
1 package mediator.e3;
2
3 interface Mediator {
4     void childChanged(Widget child);
5 }
```

3) Widget.java

```
1 package mediator.e3;
2
3 public class Widget {
4     private Mediator mediator;
5
6     public Widget() {
7         mediator = null;
8     }
9
10    public void setMediator(Mediator m) {
11        mediator = m;
12    }
13
14    public void widgetChanged() {
15        if (mediator != null)
16            mediator.childChanged(this);
17    }
18 }
```

4) TextBox.java

```
1 package mediator.e3;
2
3 public class TextBox extends Widget {
4     private String text;
5
6     public String getText() {
7         return text;
8     }
9
10    public void setText(String s) {
11        if (s.equals(text) == false) {
12            text = s;
13            widgetChanged();
14        }
15    }
16
17    public void draw() {
18        System.out.print("---- TextBoxWn");
19        System.out.print(text);
20        System.out.print("WnWn");
21    }
22 }
```

5) ListBox.java

```
1 package mediator.e3;
2
3 import java.util.ArrayList;
4
5 public class ListBox extends Widget {
6     private ArrayList<String> items;
7     private int selectedItem;
8
9     public ListBox() {
10         items = new ArrayList<String>();
11         selectedItem = -1;
12     }
13
14     public void addItem(String s) {
15         items.add(s);
16     }
17
18     public void selectItem(int index) {
19         if (selectedItem != index) {
20             selectedItem = index;
21             widgetChanged();
22         }
23     }
24
25     public String selectedText() {
26         return items.get(selectedItem);
27     }
28
29     public int find(String s) {
30         for (int i = 0; i < items.size(); ++i)
31             if (s.equals(items.get(i)))
32                 return i;
33         return -1;
34     }
35
36     public void draw() {
37         System.out.print("---- ListBox\n");
38         for (int i = 0; i < items.size(); ++i)
39             System.out.printf("%d: %s %s\n", i, items.get(i), (i == selectedItem) ? " SELECTED" : "");
40         System.out.print('\n');
41     }
42 }
```

6) Button.java

```
1 package mediator.e3;
2
3 public class Button extends Widget {
4     private boolean enabled;
5
6     public void setEnabled(boolean value) {
7         enabled = value;
8     }
9
10    public boolean getEnabled() {
11        return enabled;
12    }
13
14    public void draw() {
15        System.out.print("---- Button ");
16        System.out.println(enabled ? "enabled" : "disabled");
17        System.out.println();
18    }
19
20    public void onClick() {
21        widgetChanged();
22    }
23 }
```

7) FileOpenDialog.java

```
1 package mediator.e3;
2
3 public class FileOpenDialog implements Mediator {
4     private ListBox listBox;
5     private TextBox textBox;
6     private Button button;
7
8     public FileOpenDialog() {
9         listBox = new ListBox();
10        textBox = new TextBox();
11        button = new Button();
12
13        listBox.addItem("one");
14        listBox.addItem("two");
15        listBox.addItem("three");
16
17        listBox.setMediator(this);
18        textBox.setMediator(this);
19        button.setMediator(this);
20    }
21
22    public ListBox getListBox() {
23        return listBox;
24    }
25
26    public TextBox getTextBox() {
27        return textBox;
28    }
29
30    public Button getButton() {
31        return button;
32    }
33
34    public void draw() {
35        listBox.draw();
36        textBox.draw();
37        button.draw();
38    }
39
40    @Override
41    public void childChanged(Widget child) {
42        if (child == listBox) {
43            textBox.setText(listBox.selectedText());
44            button.setEnabled(true);
45        }
46        else if (child == textBox) {
47            int index = listBox.find(textBox.getText());
48            if (index >= 0)
49                listBox.selectItem(index);
50            button.setEnabled(true);
51        } else if (child == button) {
52            String fileName = textBox.getText();
53            System.out.println("File Open (" + fileName + ")");
54            System.exit(0);
55        }
56    }
57 }
```

8) Example3.java

```
1 package mediator.e3;
2
3 import java.util.Scanner;
4
5 public class Example3 {
6
7     public static void main(String[] args) throws Exception {
8         try (Scanner scanner = new Scanner(System.in)) {
9             FileOpenDialog dialog = new FileOpenDialog();
10             for (;;) {
11                 System.out.print("WnWnWn");
12
13                 dialog.draw();
14
15                 System.out.print("ListBox 항목 선택 : s <번호>Wn");
16                 System.out.print("TextBox 입력 : t <문자열>Wn");
17                 System.out.print("Button 클릭 : bWn");
18
19                 System.out.print("? ");
20                 String s = scanner.nextLine();
21                 switch (s.charAt(0)) {
22                     case 's':
23                         int index = Integer.parseInt(s.substring(2).trim());
24                         dialog.getListBox().selectItem(index);
25                         break;
26                     case 't':
27                         dialog.getTextBox().setText(s.substring(2).trim());
28                         break;
29                     case 'b':
30                         dialog.getButton().onClick();
31                         break;
32                 }
33             }
34         }
35     }
36 }
```

클래스 라이브러리

Mediator, Widget, TextBox, ListBox, Button

애플리케이션 클래스

FileOpenDialog, Example3