1) 개요
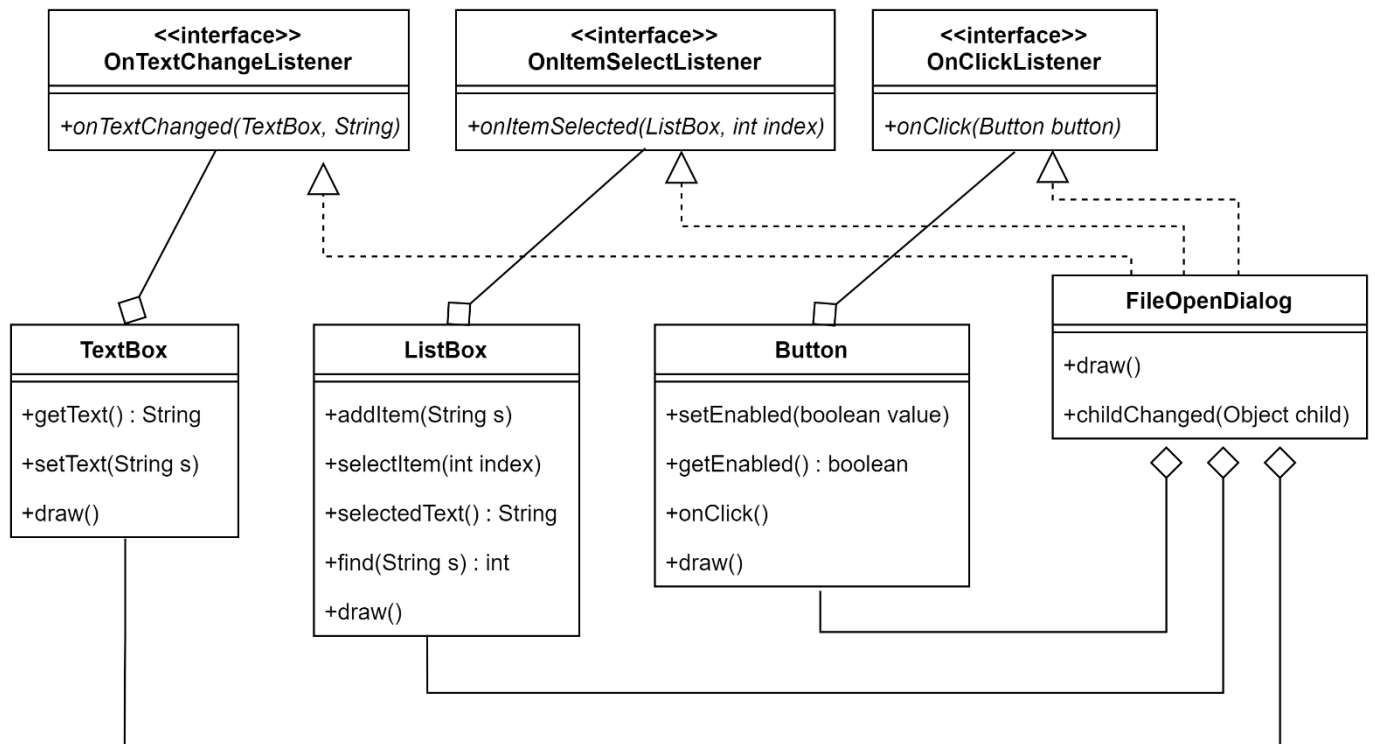
2) TextBox.java

```java
package mediator.e5;

import java.util.ArrayList;
import java.util.List;

public class TextBox {
    public interface OnTextChangedListener {
        void onTextChange(TextBox textBox, String text);
    }

    private String text;
    private List<OnTextChangedListener> onTextChangedListeners = new ArrayList<>();

    public void addOnTextChangedListener(OnTextChangedListener listener) {
        onTextChangedListeners.add(listener);
    }

    public String getText() {
        return text;
    }

    public void setText(String s) {
        if (s.equals(text) == false) {
            text = s;
            for (OnTextChangedListener listener : onTextChangedListeners)
                listener.onTextChange(this, text);
        }
    }

    public void draw() {
        System.out.print("---- TextBox\n");
        System.out.print(text);
        System.out.print("\n\n");
    }
}
```

3) ListBox.java

```java
package mediator.e5;

import java.util.ArrayList;
import java.util.List;

public class ListBox {
    public interface OnItemSelectListener {
        void onSelectItem(ListBox listBox, int index);
    }

    private ArrayList<String> items;
    private int selectedItem;
    private List<OnItemSelectListener> onItemSelectListeners = new ArrayList<>();

    public void addOnItemSelectListener(OnItemSelectListener listener) {
        onItemSelectListeners.add(listener);
    }

    public ListBox() {
        items = new ArrayList<String>();
        selectedItem = -1;
    }

    public void addItem(String s) {
        items.add(s);
    }

    public void selectItem(int index) {
        if (selectedItem != index) {
            selectedItem = index;
            for (OnItemSelectListener listener : onItemSelectListeners)
                listener.onSelectItem(this, index);
        }
    }

    public String selectedText() {
        return items.get(selectedItem);
    }

    public int find(String s) {
        for (int i = 0; i < items.size(); ++i)
            if (s.equals(items.get(i)))
                return i;
        return -1;
    }

    public void draw() {
        System.out.print("---- ListBox\n");
        for (int i = 0; i < items.size(); ++i)
            System.out.printf("%d: %s %s\n", i, items.get(i), (i == selectedItem) ? " SELECTED" : "");
        System.out.print('\n');
    }
}
```

4) Button.java

```java
package mediator.e5;

import java.util.ArrayList;
import java.util.List;

public class Button {
    public interface OnClickListener {
        void onClick(Button button);
    }

    private boolean enabled;
    private List<OnClickListener> onClickListeners = new ArrayList<>();

    public void addOnClickListener(OnClickListener listener) {
        onClickListeners.add(listener);
    }

    public void setEnabled(boolean value) {
        enabled = value;
    }

    public boolean getEnabled() {
        return enabled;
    }

    public void draw() {
        System.out.print("---- Button ");
        System.out.println(enabled ? "enabled" : "disabled");
        System.out.println();
    }

    public void onClick() {
        for (OnClickListener listener : onClickListeners)
            listener.onClick(this);
    }
}
```

5) FileOpenDialog.java

```java
package mediator.e5;

public class FileOpenDialog {
    private ListBox listBox;
    private TextBox textBox;
    private Button button;

    public FileOpenDialog() {
        listBox = new ListBox();
        textBox = new TextBox();
        button = new Button();

        listBox.addItem("one");
        listBox.addItem("two");
        listBox.addItem("three");

        listBox.addOnItemSelectListener((listBox, index) -> {
            textBox.setText(listBox.selectedText());
            button.setEnabled(true);
        });

        textBox.addOnTextChangedListener((textBox, text) -> {
            int index = listBox.find(textBox.getText());
            if (index >= 0)
                listBox.selectItem(index);
            button.setEnabled(true);
        });

        button.addOnClickListener((button) -> {
            String fileName = textBox.getText();
            System.out.println("File Open (" + fileName + ")");
            System.exit(0);
        });

    }

    public ListBox getListBox() {
        return listBox;
    }

    public TextBox getTextBox() {
        return textBox;
    }

    public Button getButton() {
        return button;
    }

    public void draw() {
        listBox.draw();
        textBox.draw();
        button.draw();
    }
}
```

6) Example5.java

```java
package mediator.e5;

import java.util.Scanner;

public class Example5 {

    public static void main(String[] args) throws Exception {
        try (Scanner scanner = new Scanner(System.in)) {
            FileOpenDialog dialog = new FileOpenDialog();
            for (;;) {
                System.out.print("\n\n\n");

                dialog.draw();

                System.out.print("ListBox 항목 선택 : s <번호>\n");
                System.out.print("TextBox 입력 : t <문자열>\n");
                System.out.print("Button 클릭  : b\n");
                System.out.print("? ");
                String s = scanner.nextLine();
                switch (s.charAt(0)) {
                case 's':
                    int index = Integer.parseInt(s.substring(2).trim());
                    dialog.getListBox().selectItem(index);
                    break;
                case 't':
                    dialog.getTextBox().setText(s.substring(2).trim());
                    break;
                case 'b':
                    dialog.getButton().onClick();
                    break;
                }
            }
        }
    }
}
```