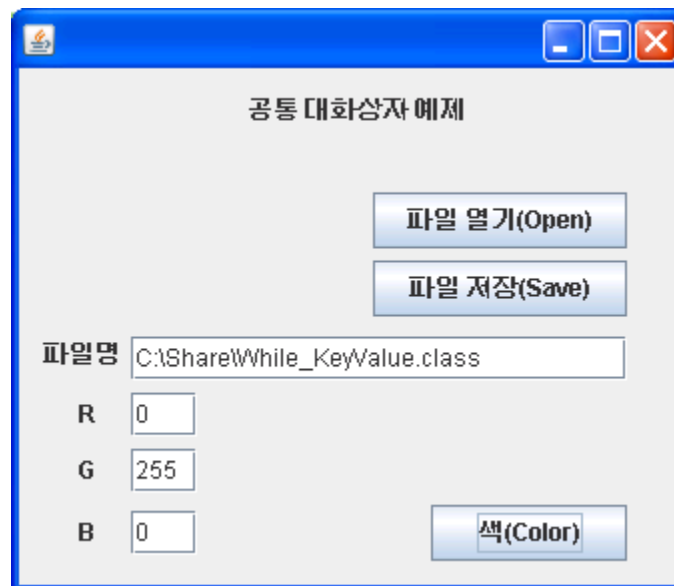




Dialog





학습 목표

■ 이 강의를 마치면 학생들은

- ❖ Dialog에 대하여 설명할 수 있다.
- ❖ FileDialog에 대하여 설명할 수 있다.
- ❖ ColorDialog에 대하여 설명할 수 있다.
- ❖ Frame에 대하여 설명할 수 있다.



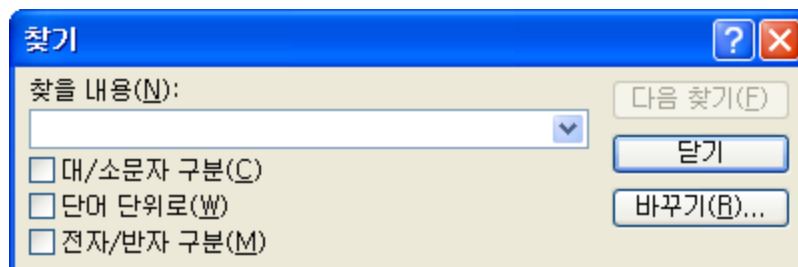
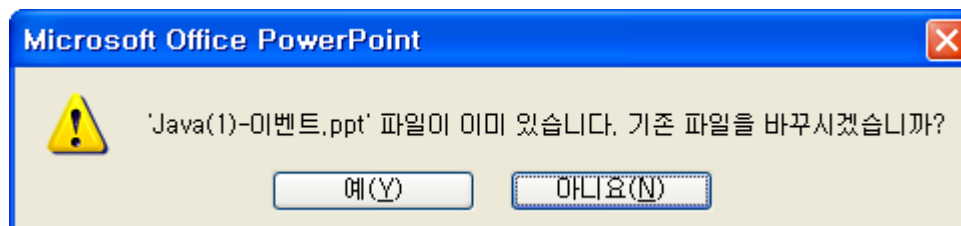


대화상자(Dialog) (1)

■ Dialog

❖ 기능

- ◆ Pop Up 윈도우 형태로 메시지를 출력하거나, 사용자 입력을 받는 기능을 구현할 때 사용



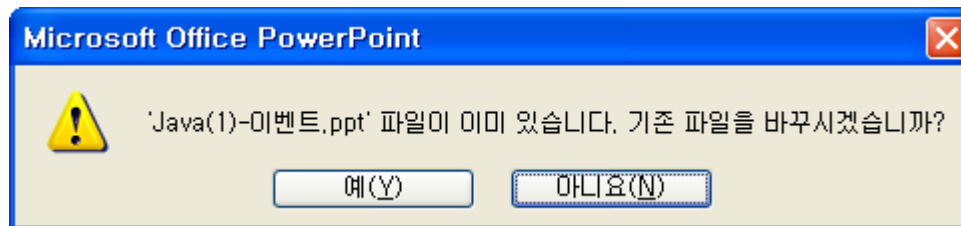


대화상자(Dialog) (2)

대화상자

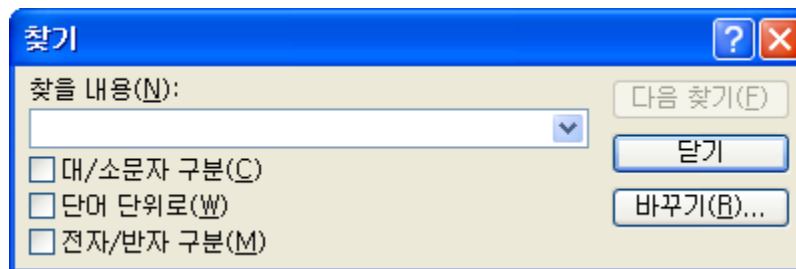
❖ Modal 형

- ◆ 대화상자를 OK, Cancel 버튼을 사용하여 닫기 전에 다른 윈도우로 전환 불가
- ◆ 예
 - MessageBox



❖ Modeless 형

- ◆ 대화상자를 열어 놓은 상태에서 다른 윈도우로 전환 가능.
- ◆ 예
 - 찾기 대화상자





대화상자(Dialog) (3)

❖ 생성자

```
public Dialog(Frame parent)
```

```
public Dialog(Frame parent, boolean flag)
```

```
public Dialog(Frame parent, String title)
```

```
public Dialog(Frame parent, String title,  
              boolean flag)
```

- Parent : 부모 frame instance
- flag = true/false
(Modal/Modeless)
- title : 대화상자에 출력 문자열

❖ 형식

```
Dialog dlgInput = new Dialog(owner, Text, true)
```

owner

부모 Dialog 지정

Text

Dialog 제목 지정

True(False)

Modal(Modeless) 지정





대화상자(Dialog) (4)

■ Method

Method	기능
public void show()	Dialog를 화면에 출력
public void dispose()	Dialog 종료
public void setVisible(boolean b)	Dialog 화면 출력 여부 지정

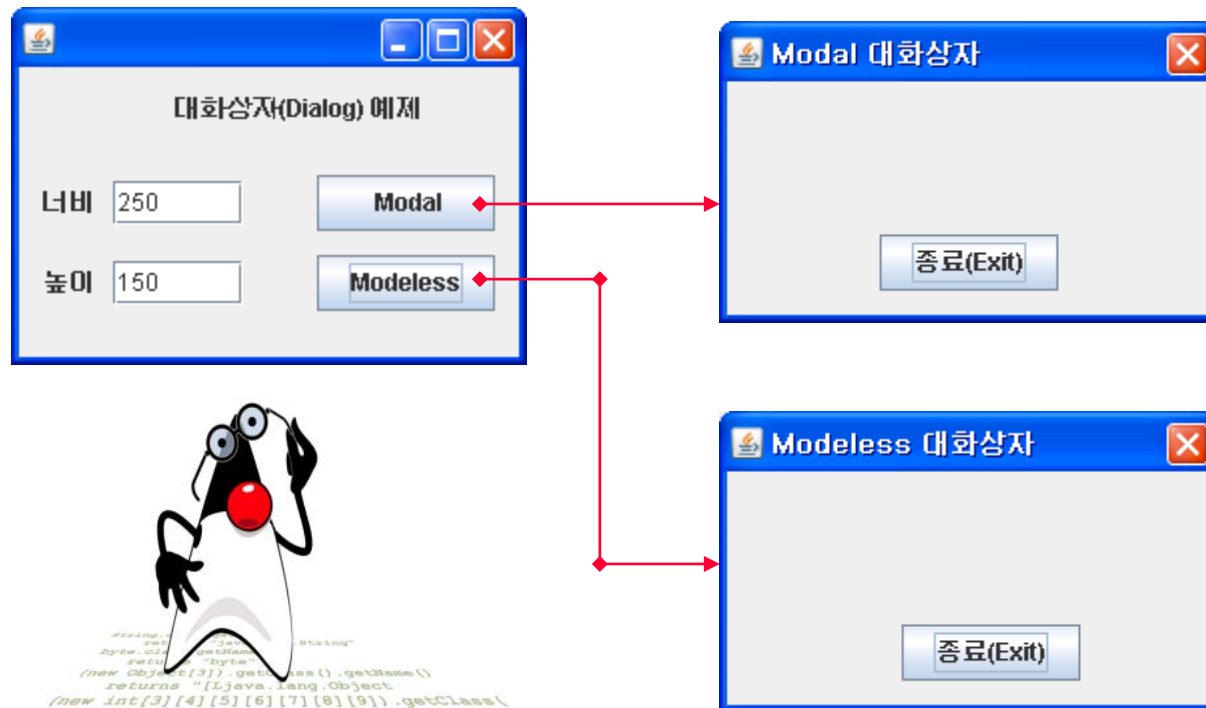




실습 1 : 대화상자(Dialog)

❖ Project Name: Dialog_Source(실습시간 : 20분)

- [Modal] Button
 - 너비와 높이 입력값의 크기에 맞는 Modal형 대화상자를 나타낸다.
- [Modeless] Button
 - 너비와 높이 입력값의 크기에 맞는 Modeless형 대화상자를 나타낸다.





실습 1 : 대화상자(Dialog) (1)

Application 생성

The screenshot illustrates the process of creating a new application in NetBeans IDE 6.0.1. It shows the 'File' menu, the 'New Project' dialog, and the 'Choose Project' step.

1. 클릭 (Click): The 'New Project...' option in the 'File' menu is highlighted with a red box and a red arrow pointing to it from a yellow box labeled '1. 클릭'.

2. 클릭 (Click): The 'Java Application' option in the 'Projects' list of the 'New Project' dialog is highlighted with a red box and a red arrow pointing to it from a yellow box labeled '2. 클릭'.

3. 클릭 (Click): The 'Next >' button at the bottom of the 'New Project' dialog is highlighted with a red box and a red arrow pointing to it from a yellow box labeled '3. 클릭'.

NetBeans IDE 6.0.1

File Edit View Navigate Source Refactor

New Project... Ctrl+Shift+N

New File... Ctrl+N

Open Project... Ctrl+O

Open Recent Project

Close Project

Open File... Ctrl+O

Open Recent File

Project Group

Set Main Project

Project Properties

Save Ctrl+S

Save As... Ctrl+Shift+S

Save All Ctrl+Shift+A

Page Setup... Ctrl+P

Print... Ctrl+P

Print to HTML... Ctrl+Shift+P

Exit Ctrl+Q

New Project

Steps

1. Choose Project
2. ...

Choose Project

Categories:

- Java
- NetBeans Modules
- Samples

Projects:

- Java Application
- Java Desktop Application
- Java Class Library
- Java Project with Existing Sources
- Java Project with Existing Ant Script

Description:

Creates a new Java SE application in a standard IDE project. You can also generate a main class in the project. Standard projects use an IDE-generated Ant build script to build, run, and debug your project.

Back Next > Finish Cancel Help





실습 1 : 대화상자(Dialog) (2)

■ Project Name and Location

❖ Project name: Dialog_Source

New Java Application

Steps

1. Choose Project
2. **Name and Location**

Name and Location

Project Name: Dialog_Source

Project Location: E:\W\LECTURE\Java_프로그래밍\Source Browse...

Project Folder: E:\W\LECTURE\Java_프로그래밍\Source\Dialog_Source

☒ Set as Main Project

☐ Create Main Class dialog_source,Main

< Back Next > **Finish** Cancel Help

4. Project Name 입력

5. 클릭

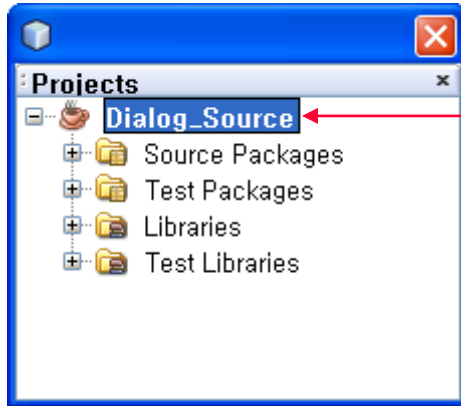
6. 클릭



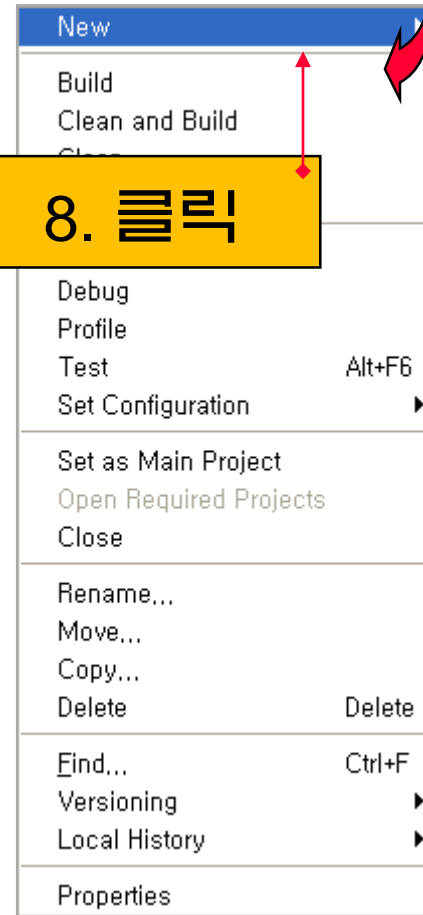


실습 1 : 대화상자(Dialog) (3)

JFrame Form 생성

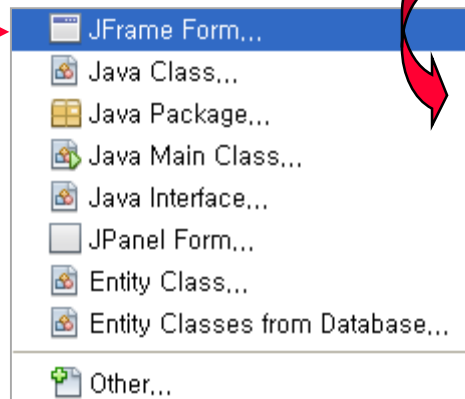


7. 마우스 오른쪽 버튼 클릭



8. 클릭

9. 클릭





실습 1 : 대화상자(Dialog) (4)

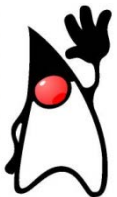
■ JFrame Form Name 지정

❖ MainFrame.java 생성

10. MainFrame 입력

11. 클릭

Warning: It is highly recommended that you do NOT place Java classes in the def...





실습 1 : 대화상자(Dialog) (5)

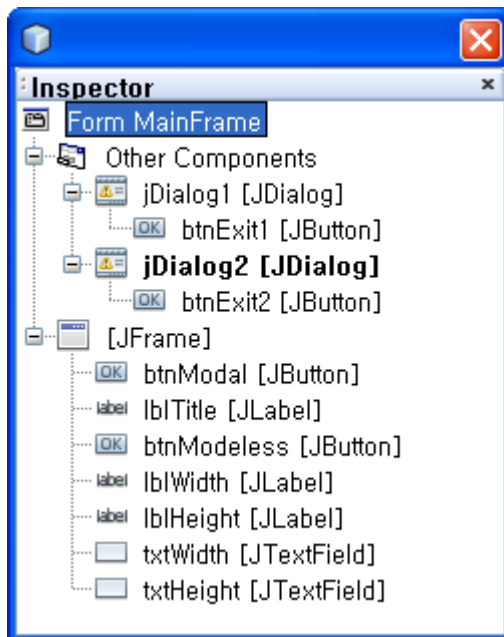
■ 컨트롤 배치 및 속성 지정

❖ MainFrame

대화상자(Dialog) 예제

너비 250 Modal

높이 150 Modeless



컨트롤	속성 지정
jLabel1	<ul style="list-style-type: none">• Variable Name : lblTitle• Text : 대화상자(Dialog) 예제
jLabel2	<ul style="list-style-type: none">• Variable Name : lblWidth• Text : 너비
jLabel3	<ul style="list-style-type: none">• Variable Name : lblHeight• Text : 높이
jTextField1	<ul style="list-style-type: none">• Variable Name : txtWidth• Text : 250
jTextField2	<ul style="list-style-type: none">• Variable Name : txtHeight• Text : 150
jButton1	<ul style="list-style-type: none">• Variable Name : btnModal• Text : Modal
jButton2	<ul style="list-style-type: none">• Variable Name : btnModeless• Text : Modeless





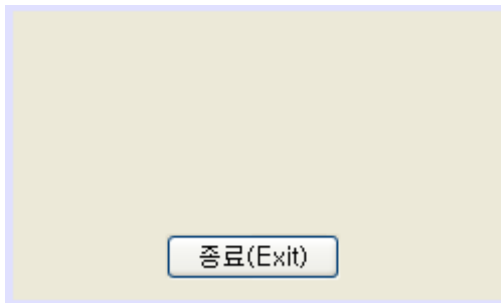
실습 1 : 대화상자(Dialog) (6)

❖ Dialog1



컨트롤	속성 지정
jDialog1	<ul style="list-style-type: none">• Variable Name : jDialog1• title: Modal 대화상자• modal: <input checked="" type="checkbox"/>
jButton1	<ul style="list-style-type: none">• Variable Name : btnExit1• Text : 종료(Exit)

❖ Dialog2



컨트롤	속성 지정
jDialog2	<ul style="list-style-type: none">• Variable Name : jDialog2• title: Modal ess 대화상자
jButton1	<ul style="list-style-type: none">• Variable Name : btnExit2• Text : 종료(Exit)





실습 1 : 대화상자(Dialog) (7)

❖ jDialog1 속성 지정 Code

```
MainFrame.java - Editor
MainFrame.java x
Source Design
40
41 jDialog1.setTitle("Modal 대화상자");
42 jDialog1.setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT_CURSOR));
43 jDialog1.setModal(true);
44
45 btnExit1.setText("종료(Exit)");
46 btnExit1.addActionListener(new java.awt.event.ActionListener() {
47     public void actionPerformed(java.awt.event.ActionEvent evt) {
48         btnExit1ActionPerformed(evt);
49     }
50 });
51
52 javax.swing.GroupLayout jDialog1Layout = new javax.swing.GroupLayout(jDialog1.getContentPane());
53 jDialog1.getContentPane().setLayout(jDialog1Layout);
54 jDialog1Layout.setHorizontalGroup(
55     jDialog1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
56         .addGroup(jDialog1Layout.createSequentialGroup()
57             .addGap(76, 76, 76)
58             .addComponent(btnExit1)
59             .addGap(81, Short.MAX_VALUE))
60         );
61 jDialog1Layout.setVerticalGroup(
62     jDialog1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
63         .addGroup(jDialog1Layout.createSequentialGroup()
64             .addGap(111, Short.MAX_VALUE)
65             .addComponent(btnExit1)
66             .addGap())
67         );
```





실습 1 : 대화상자(Dialog) (8)

❖ jDialog2 속성 지정 Code

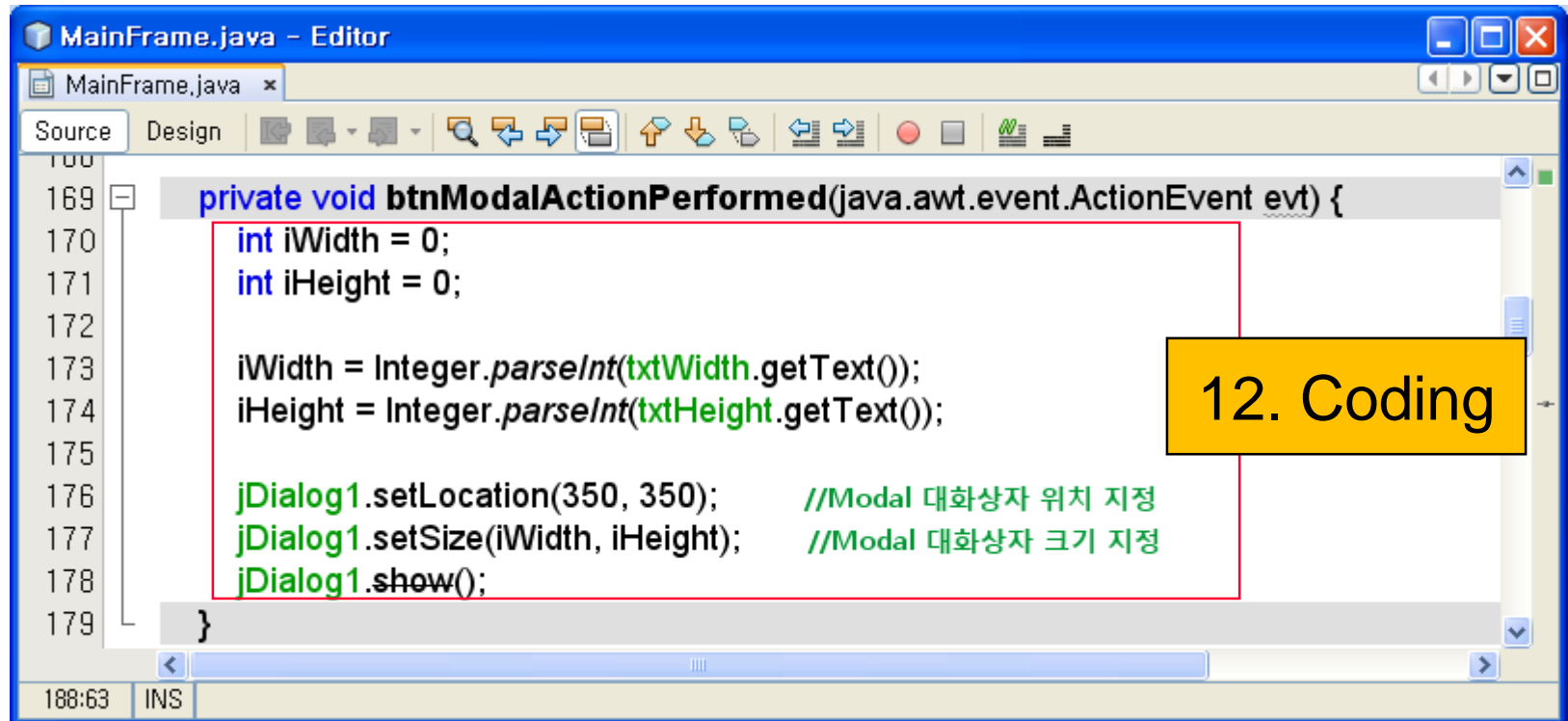
```
MainFrame.java - Editor
MainFrame.java x
Source Design
68
69 jDialog2.setTitle("Modeless 대화상자");
70
71 btnExit2.setText("종료(Exit)");
72 btnExit2.addActionListener(new java.awt.event.ActionListener() {
73     public void actionPerformed(java.awt.event.ActionEvent evt) {
74         btnExit2ActionPerformed(evt);
75     }
76 });
77
78 javax.swing.GroupLayout jDialog2Layout = new javax.swing.GroupLayout(jDialog2.getContentPane());
79 jDialog2.getContentPane().setLayout(jDialog2Layout);
80 jDialog2Layout.setHorizontalGroup(
81     jDialog2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
82         .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jDialog2Layout.createSequentialGroup()
83             .addContainerGap(71, true)
84             .addComponent(btnExit2)
85             .addContainerGap(66, true)
86         );
87 jDialog2Layout.setVerticalGroup(
88     jDialog2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
89         .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jDialog2Layout.createSequentialGroup()
90             .addContainerGap(115, true)
91             .addComponent(btnExit2)
92             .addContainerGap()
93 );
188:63 INS
```





실습 1 : 대화상자(Dialog) (9)

❖ [Modal] Button Event Handler



```
MainFrame.java - Editor
MainFrame.java x
Source Design
169 private void btnModalActionPerformed(java.awt.event.ActionEvent evt) {
170     int iWidth = 0;
171     int iHeight = 0;
172
173     iWidth = Integer.parseInt(txtWidth.getText());
174     iHeight = Integer.parseInt(txtHeight.getText());
175
176     jDialog1.setLocation(350, 350);    //Modal 대화상자 위치 지정
177     jDialog1.setSize(iWidth, iHeight); //Modal 대화상자 크기 지정
178     jDialog1.show();
179 }
```

12. Coding

188:63 INS





실습 1 : 대화상자(Dialog) (10)

❖ [Modeless] Button Event Handler

MainFrame.java - Editor

```
181 private void btnModelessActionPerformed(java.awt.event.ActionEvent evt) {  
182     int iWidth = 0;  
183     int iHeight = 0;  
184  
185     iWidth = Integer.parseInt(txtWidth.getText());  
186     iHeight = Integer.parseInt(txtHeight.getText());  
187  
188     jDialog2.setLocation(350, 350);    //Modeless 대화상자 종료  
189     jDialog2.setSize(iWidth, iHeight); //Modeless 대화상자 크기 지정  
190     jDialog2.show();  
191 }
```

13. Coding

188:63 INS



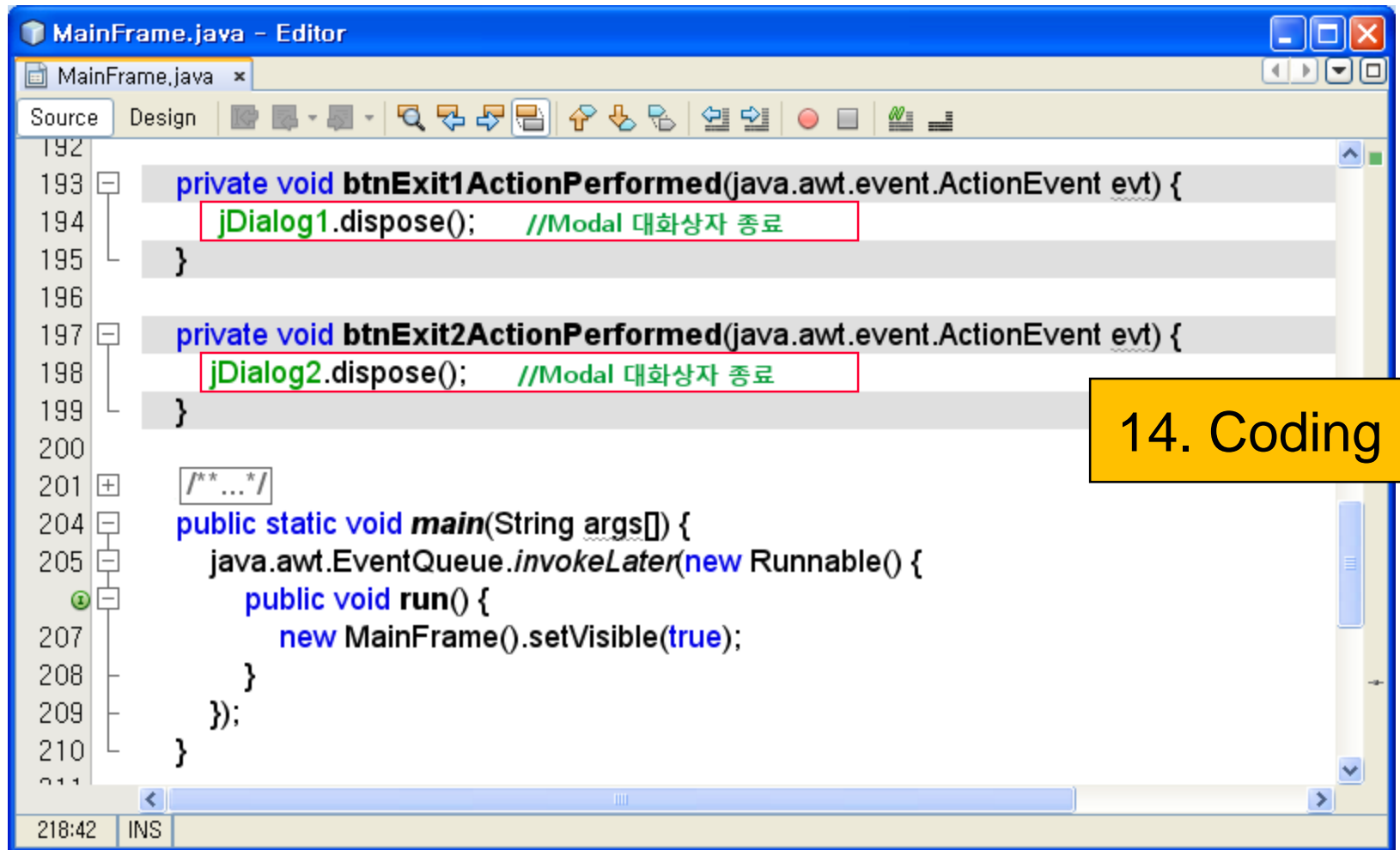


실습 1 : 대화상자(Dialog) (11)

❖ [종료(Exit)] Button Event Handler

◆ jDialog1 : btnExit1

◆ jDialog2 : btnExit2



```
192
193 private void btnExit1ActionPerformed(java.awt.event.ActionEvent evt) {
194     jDialog1.dispose(); //Modal 대화상자 종료
195 }
196
197 private void btnExit2ActionPerformed(java.awt.event.ActionEvent evt) {
198     jDialog2.dispose(); //Modal 대화상자 종료
199 }
200
201 /** ... */
204 public static void main(String args[]) {
205     java.awt.EventQueue.invokeLater(new Runnable() {
206         public void run() {
207             new MainFrame().setVisible(true);
208         }
209     });
210 }
```

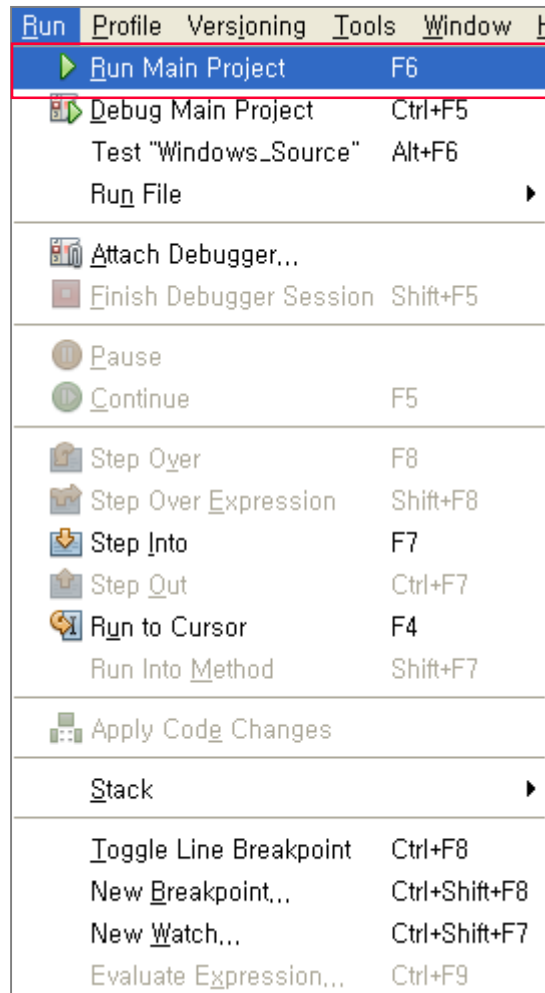
14. Coding



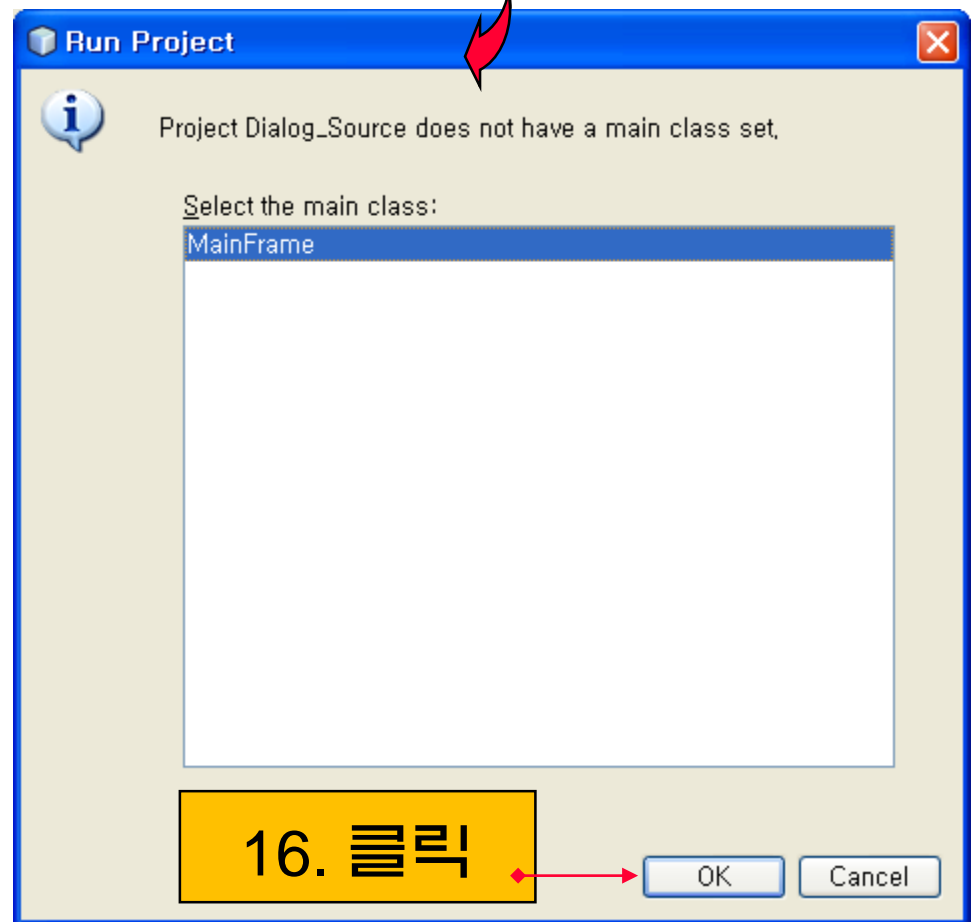


실습 1 : 대화상자(Dialog) (12)

실행



15. 클릭



16. 클릭



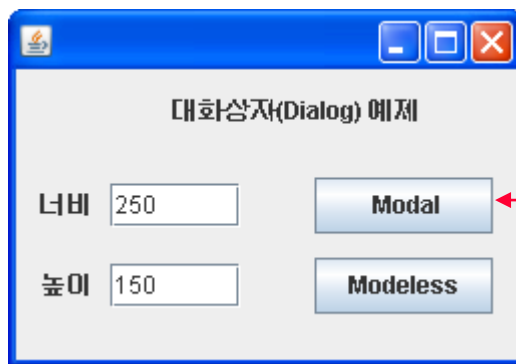


실습 1 : 대화상자(Dialog) (13)

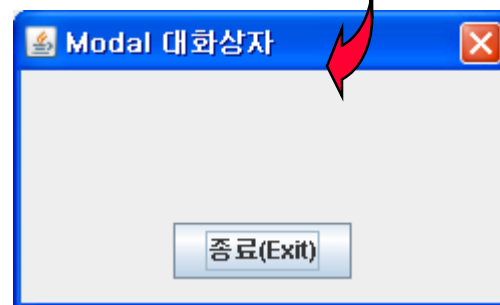
■ 실행 결과

❖ [Modal] Button 클릭

◆ 다른 대화상자 선택 불가능



17. 클릭



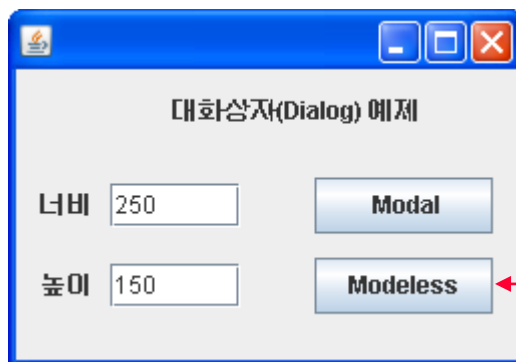


실습 1 : 대화상자(Dialog) (14)

■ 실행 결과

❖ [Modeless] Button 클릭

◆ 다른 대화상자 선택 가능



18. 클릭





Common Dialog

■ Common Dialog

❖ 기능

◆ 윈도우 프로그램에서 공통으로 사용하는 대화상자

❖ 클래스

대화상자	클래스
파일 열기	FileDialog
폰트 선택	FontDialog
색상선택	ColorDialog
인쇄	PrintDialog
찾기, 바꾸기	FindReplaceDialog





FileDialog (1)

■ FileDialog

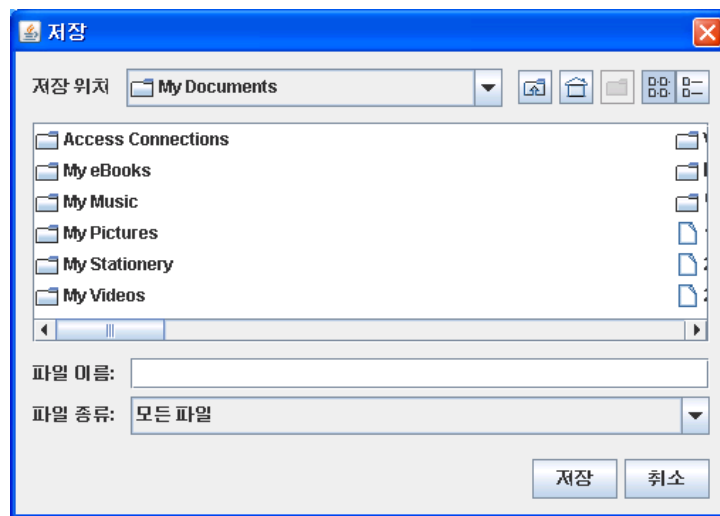
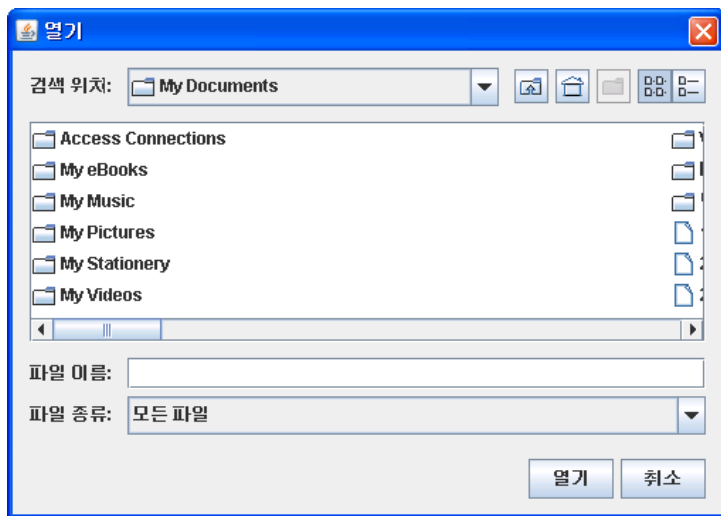
❖ 기능

◆ File 열기/저장 기능 구현

❖ 형식

◆ 열기

◆ 저장





FileDialog (2)

❖ 생성자

생성자	기능
public FileDialog(Frame parent)	기본 생성자
public FileDialog(Frame parent, String strData)	• strData: 제목표시줄에 출력할 문자열
public FileDialog(Frame parent, String strData, int rw)	• strData: 제목표시줄에 출력할 문자열 • rw : FileDialog.LOAD/FileDialog.SAVE

❖ Method

Method	기능
public void show()	Dialog를 화면에 출력
public String getDirectory()	선택한 파일이 위치한 폴더 반환
public String getFile()	선택한 파일명 반환
public String setFile(String strFile)	strFile로 파일명 지정





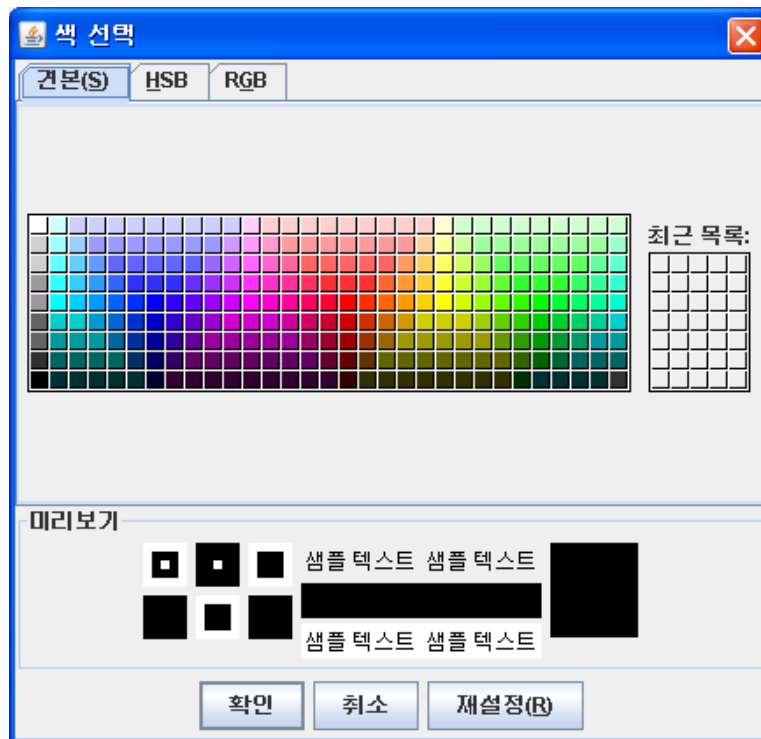
Color Dialog (1)

■ Color Dialog

❖ 기능

◆ Color 선택 기능 구현

❖ 형식





Color Dialog (2)

❖ Method

Method	기능
public Color getColor()	색 반환
public void setColor(int red, int green, int blue)	색 지정
public void setColor(int c)	
public void setColor(Color objcolor)	

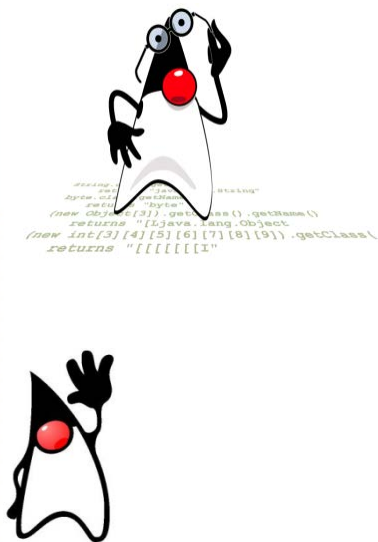
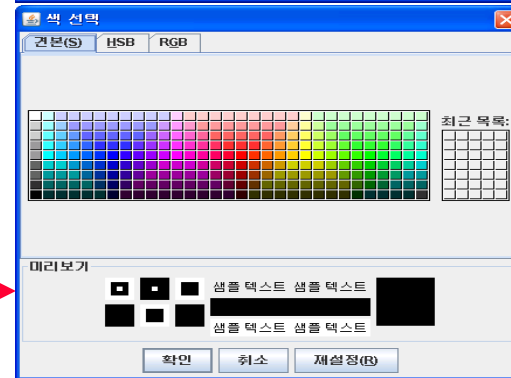
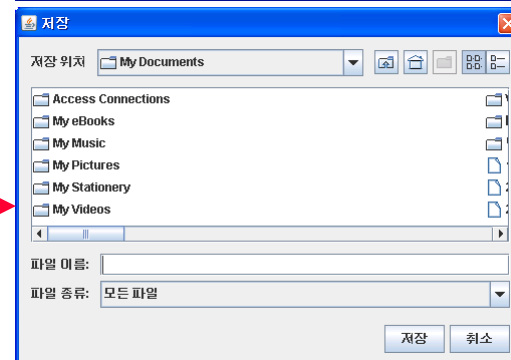
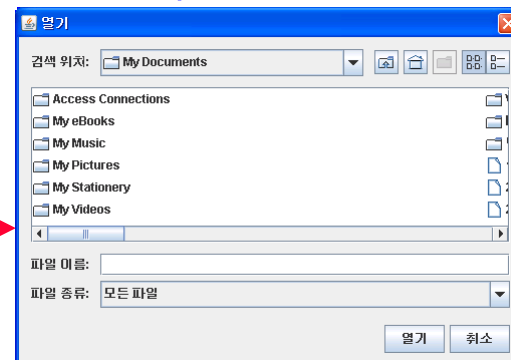
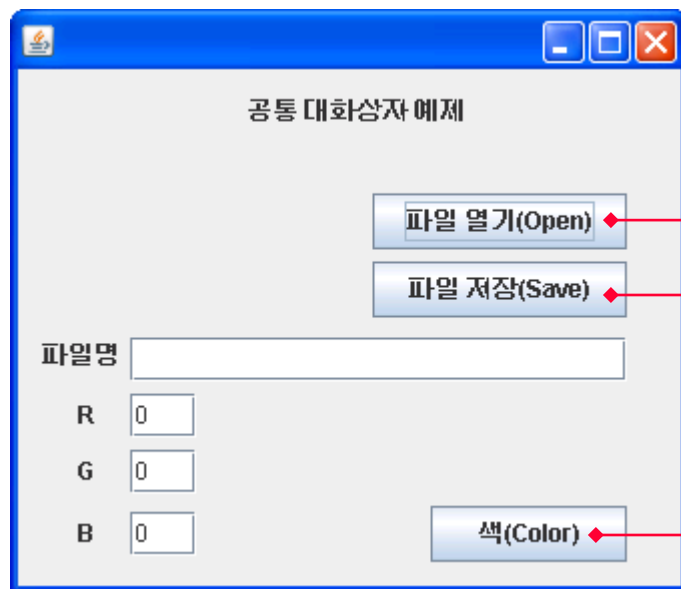




실습 2 : CommonDialog

❖ Project Name: CommonDialog_Source(실습시간 : 30)

- [파일 열기(Open)] Button
 - 파일 열기 Common Dialog 실행
- [파일 저장(Save)] Button
 - 파일 저장 Common Dialog 실행
- [색(Color)] Button
 - 색 선택 Common Dialog 실행



```
//Example  
Applet applet =  
    (Applet) this.  
    (new Object() {  
        public  
        returns "[Ljava.lang.Object;  
    (new int[] {4} {5} {6} {7} {8} {9}).getClass()  
    returns "[[[[[[I"
```



실습 2 : CommonDialog (1)

Application 생성

1. 클릭

2. 클릭

3. 클릭

NetBeans IDE 6.0.1

File Edit View Navigate Source Refactor

New Project... Ctrl+Shift+N

New File... Ctrl+N

Open Project... Ctrl+O

Open Recent Project

Close Project

Open File... Ctrl+F

Open Recent File

Project Group

Set Main Project

Project Properties

Save Ctrl+S

Save As... Ctrl+Shift+S

Save All Ctrl+Shift+A

Page Setup... Ctrl+P

Print... Ctrl+P

Print to HTML... Ctrl+Shift+P

Exit Ctrl+N

New Project

Steps

1. Choose Project
2. ...

Choose Project

Categories:

- Java
- NetBeans Modules
- Samples

Projects:

- Java Application
- Java Desktop Application
- Java Class Library
- Java Project with Existing Sources
- Java Project with Existing Ant Script

Description:

Creates a new Java SE application in a standard IDE project. You can also generate a main class in the project. Standard projects use an IDE-generated Ant build script to build, run, and debug your project.

Back Next > Finish Cancel Help





실습 2 : CommonDialog (2)

■ Project Name and Location

❖ Project name: CommonDialog_Source

New Java Application

Steps

1. Choose Project
2. **Name and Location**

Name and Location

Project Name: CommonDialog_Source

Project Location: E:\₩LECTURE₩Java_프로그래밍₩Source Browse...

Project Folder: ₩Java_프로그래밍₩Source₩CommonDialog_Source

☒ Set as Main Project

☐ Create Main Class commondialog_source,Main

4. Project Name 입력

5. 클릭

6. 클릭

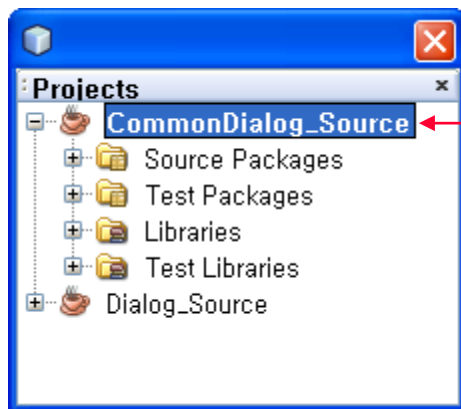
< Back Next > **Finish** Cancel Help



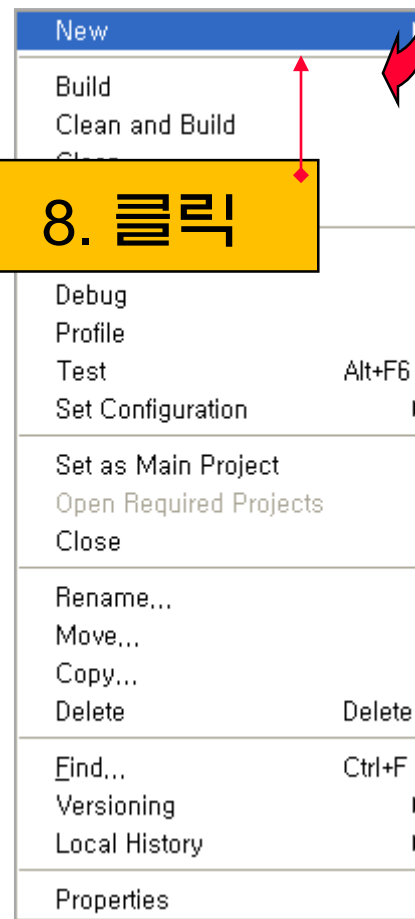


실습 2 : CommonDialog (3)

JFrame Form 생성

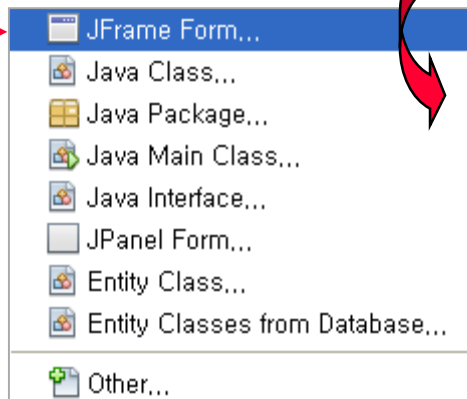


7. 마우스 오른쪽 버튼 클릭



8. 클릭

9. 클릭





실습 2 : CommonDialog (4)

■ JFrame Form Name 지정

❖ MainFrame.java 생성

New JFrame Form

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

Class Name: MainFrame

Project: CommonDialog_Source

Location: Source Packages

Package:

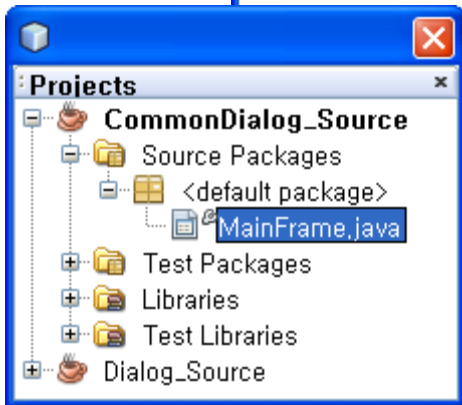
Created File: Java_프로그래밍\Source\CommonDialog_Source\src\MainFrame.java

10. MainFrame 입력

11. 클릭

Warning: It is highly recommended that you do NOT place Java classes in the def...

< Back Next > Finish Cancel Help





실습 2 : CommonDialog (5)

■ 컨트롤 배치 및 속성 지정

❖ MainFrame

공통 대화상자 예제

파일 열기(Open)

파일 저장(Save)

파일명

R

G

B

색(Color)

12. GUI 구현

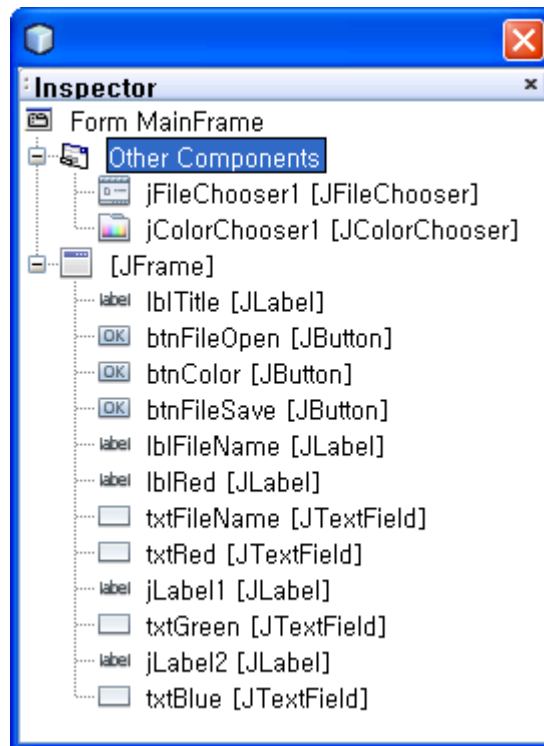
컨트롤	속성 지정
jLabel1	<ul style="list-style-type: none">Variable Name : lblTitleText : 공통 대화상자 예제
jLabel2	<ul style="list-style-type: none">Variable Name : lblFileNameText : 파일명
jLabel3	<ul style="list-style-type: none">Variable Name : lblRedText : R
jLabel4	<ul style="list-style-type: none">Variable Name : lblGreenText : G
jLabel5	<ul style="list-style-type: none">Variable Name : lblBlueText : B
jTextField1	<ul style="list-style-type: none">Variable Name : txtFileName
jTextField2	<ul style="list-style-type: none">Variable Name : txtRedText : 0
jTextField3	<ul style="list-style-type: none">Variable Name : txtGreenText : 0
jTextField4	<ul style="list-style-type: none">Variable Name : txtBlueText : 0
jButton1	<ul style="list-style-type: none">Variable Name : btnFileOpenText : 파일 열기(open)
jButton2	<ul style="list-style-type: none">Variable Name : btnFileSaveText : 파일 저장(Save)
jButton3	<ul style="list-style-type: none">Variable Name : btnColorText : 색(Color)





실습 2 : CommonDialog (6)

❖ Other component



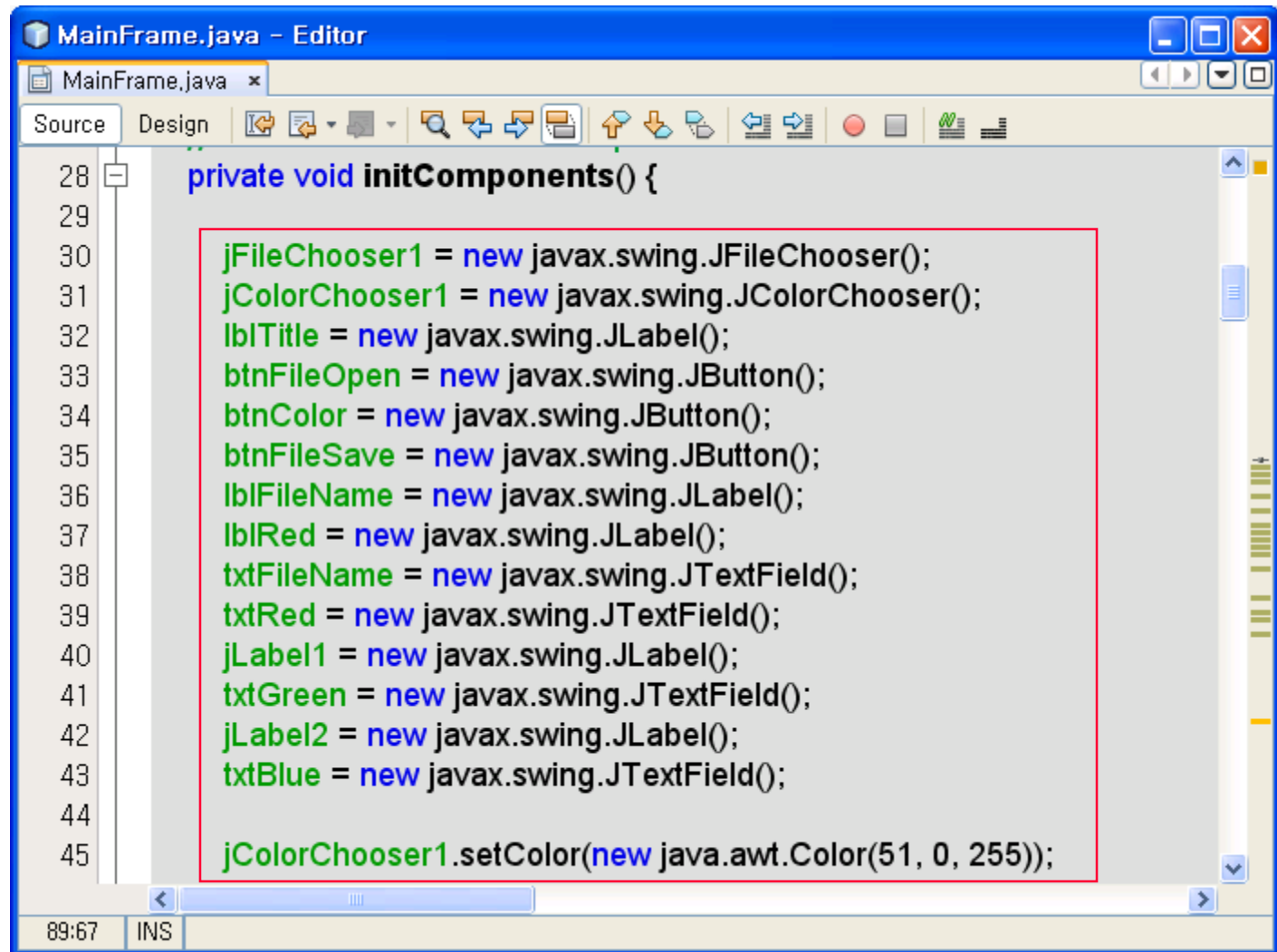
컨트롤	속성 지정
jFileChooser1	
jColorChooser1	





실습 2 : CommonDialog (7)

❖ initComponents() 속성 지정 Code



```
MainFrame.java - Editor
MainFrame.java
Source Design
28 private void initComponents() {
29
30     jFileChooser1 = new javax.swing.JFileChooser();
31     jColorChooser1 = new javax.swing.JColorChooser();
32     lblTitle = new javax.swing.JLabel();
33     btnFileOpen = new javax.swing.JButton();
34     btnColor = new javax.swing.JButton();
35     btnFileSave = new javax.swing.JButton();
36     lblFileName = new javax.swing.JLabel();
37     lblRed = new javax.swing.JLabel();
38     txtFileName = new javax.swing.JTextField();
39     txtRed = new javax.swing.JTextField();
40     jLabel1 = new javax.swing.JLabel();
41     txtGreen = new javax.swing.JTextField();
42     jLabel2 = new javax.swing.JLabel();
43     txtBlue = new javax.swing.JTextField();
44
45     jColorChooser1.setColor(new java.awt.Color(51, 0, 255));
46 }
```



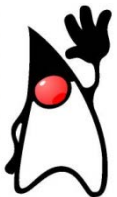


실습 2 : CommonDialog (8)

- ❖ [파일 열기(Open)] Button Event Handler
- ❖ [파일 저장(Save)] Button Event Handler

```
MainFrame.java - Editor
MainFrame.java *
Source Design
155 private void btnFileOpenActionPerformed(java.awt.event.ActionEvent evt) {
156
157     jFileChooser1.showOpenDialog(null);
158
159
160
161 }
162
163 private void btnFileSaveActionPerformed(java.awt.event.ActionEvent evt) {
164
165     jFileChooser1.showSaveDialog(null);
166
167
168 }
169
170:1 INS
```

13. Coding

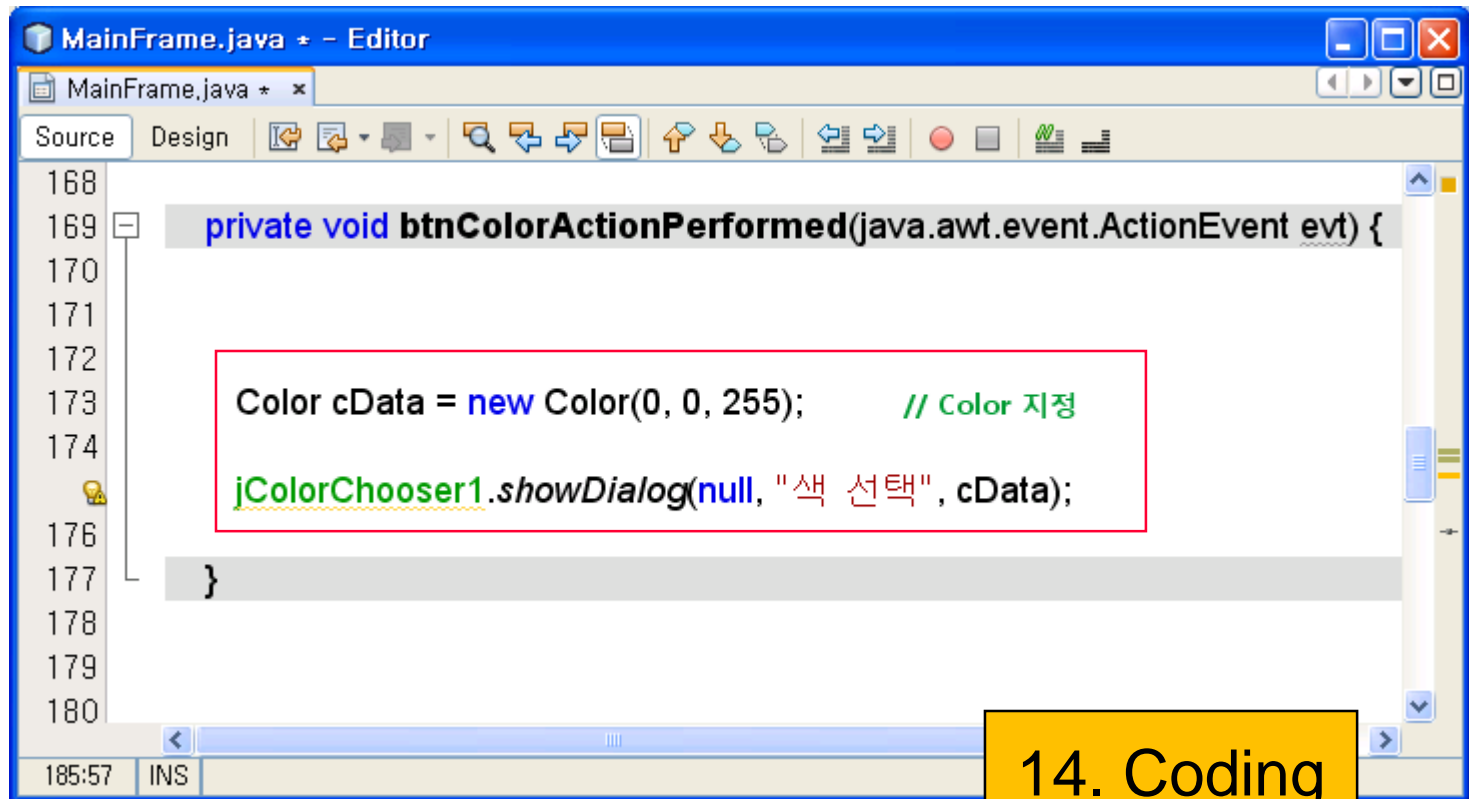




실습 2 : CommonDialog (9)

❖ [색(Color)] Button Event Handler

◆ Color 클래스 사용



```
MainFrame.java * - Editor
MainFrame.java * x
Source Design
168
169 private void btnColorActionPerformed(java.awt.event.ActionEvent evt) {
170
171
172     Color cData = new Color(0, 0, 255);    // Color 지정
173
174     jColorChooser1.showDialog(null, "색 선택", cData);
175
176
177 }
178
179
180
185:57 INS
```

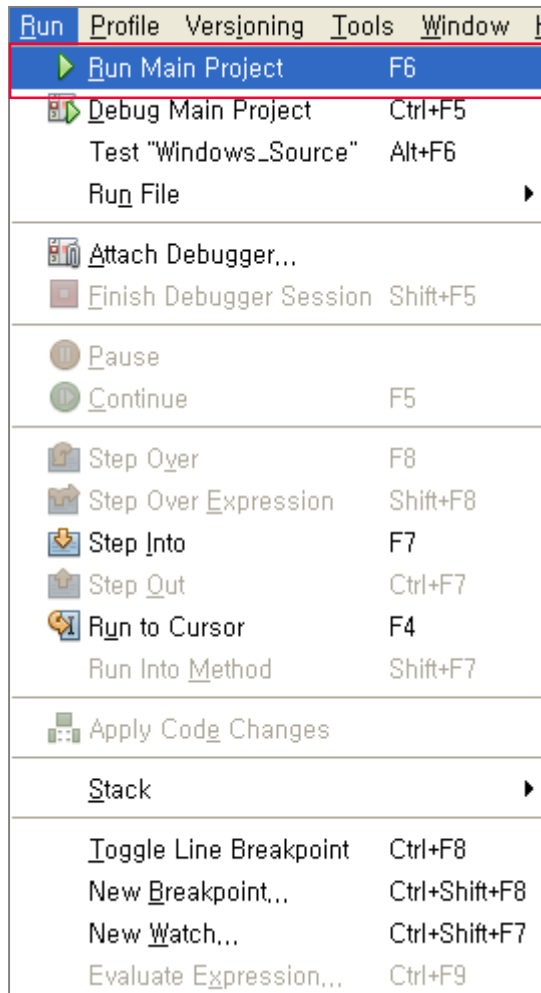
14. Coding



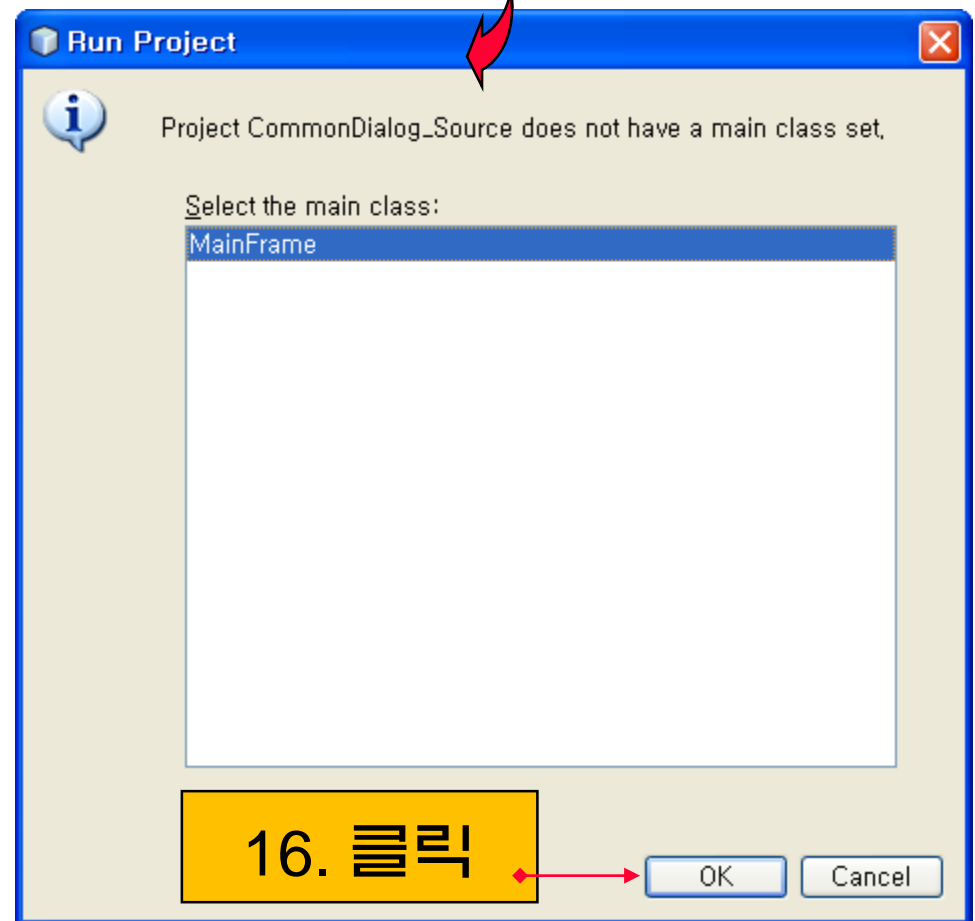


실습 2 : CommonDialog (10)

실행



15. 클릭



16. 클릭

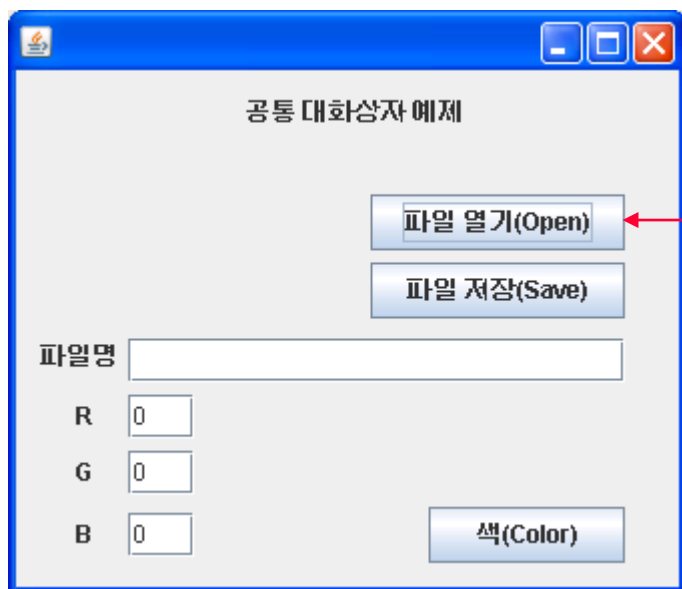




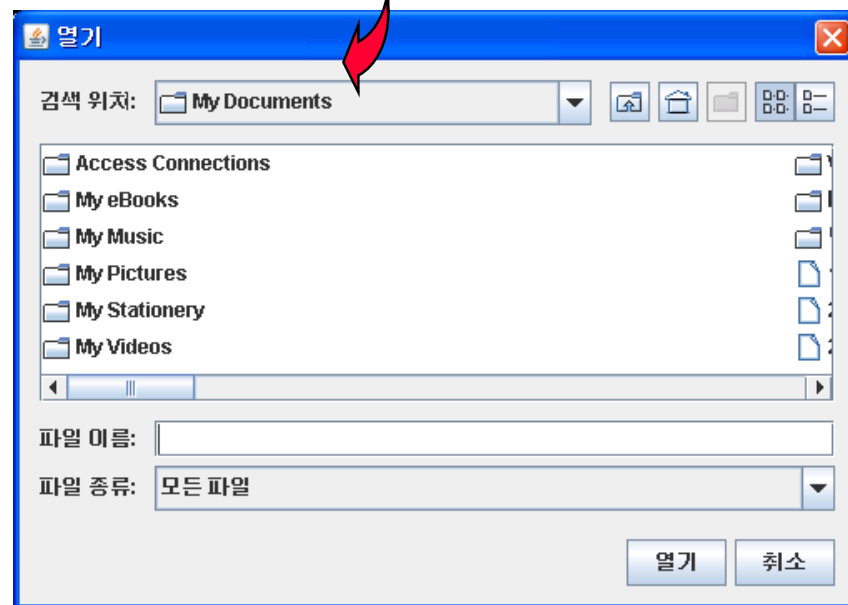
실습 2 : CommonDialog (11)

■ 실행 결과

❖ [파일 열기(Open)] Button 클릭



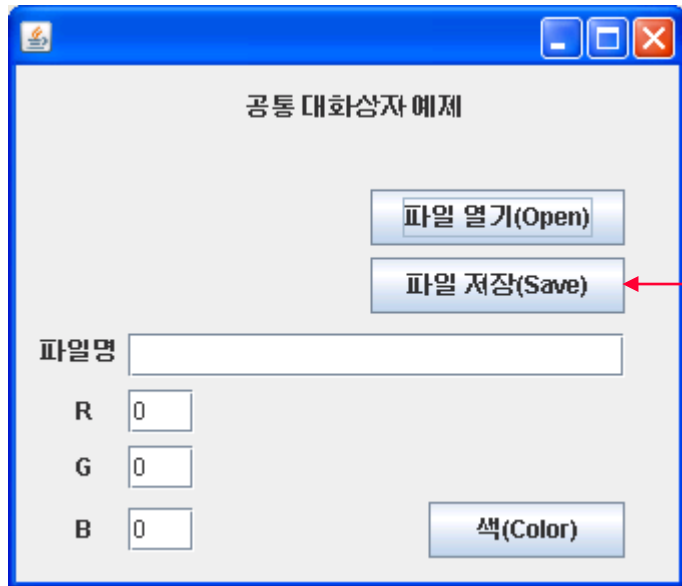
17. 클릭



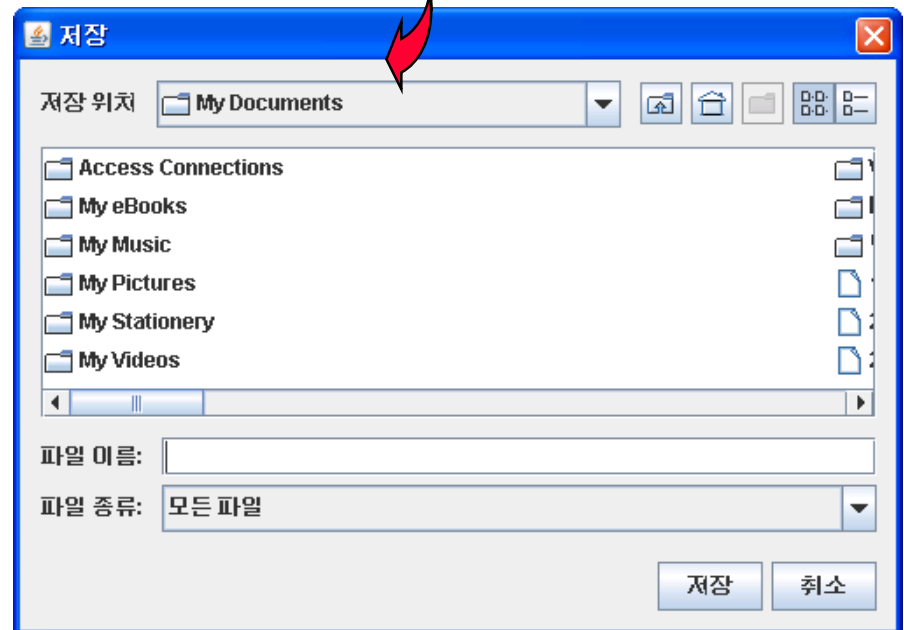


실습 2 : CommonDialog (12)

❖ [파일 저장(Save)] Button 클릭



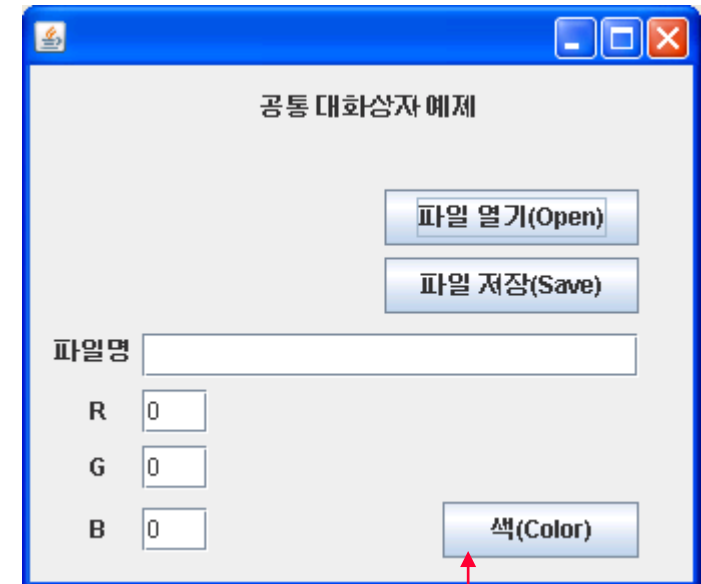
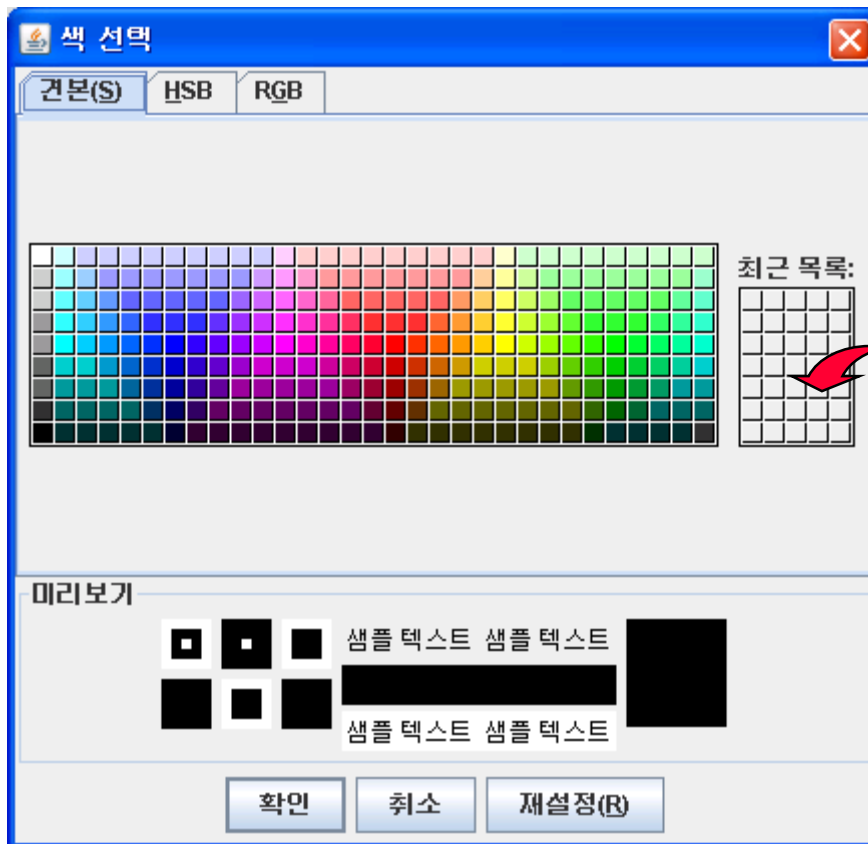
18. 클릭





실습 2 : CommonDialog (13)

❖ [색(Color)] Button 클릭



19. 클릭



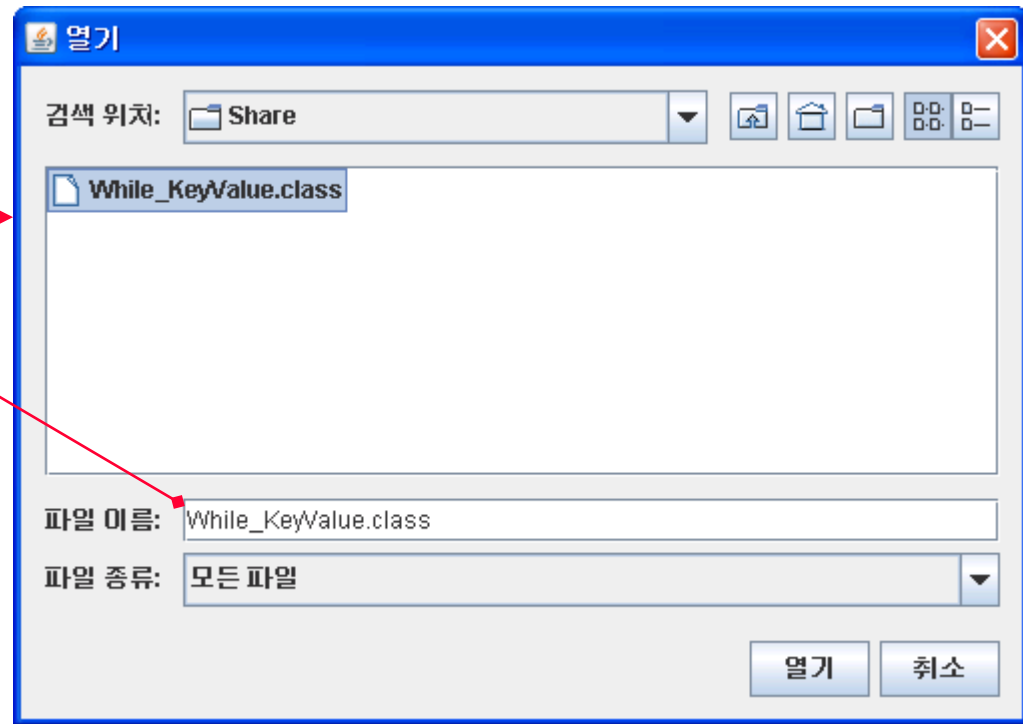
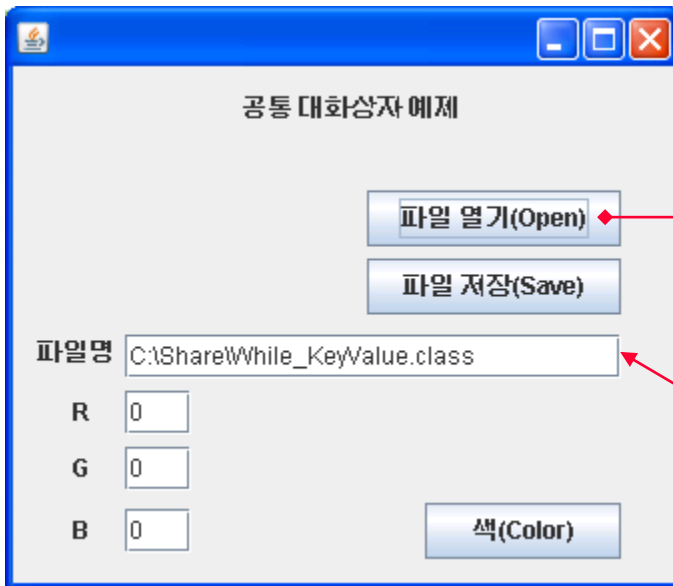


실습 3 : CommonDialog (1)

❖ Project Name: CommonDialog_Source(실습시간 : 30)

▪ [파일 열기(Open)] Button

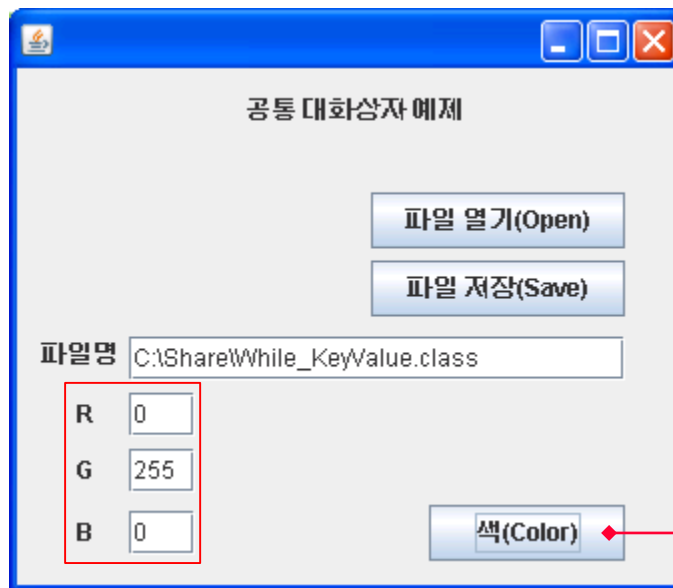
- 파일 열기 Common Dialog 실행
- 파일 열기 대화상자에서 선택한 파일의 파일명(절대경로 포함)을 파일명 TextField에 출력하라.



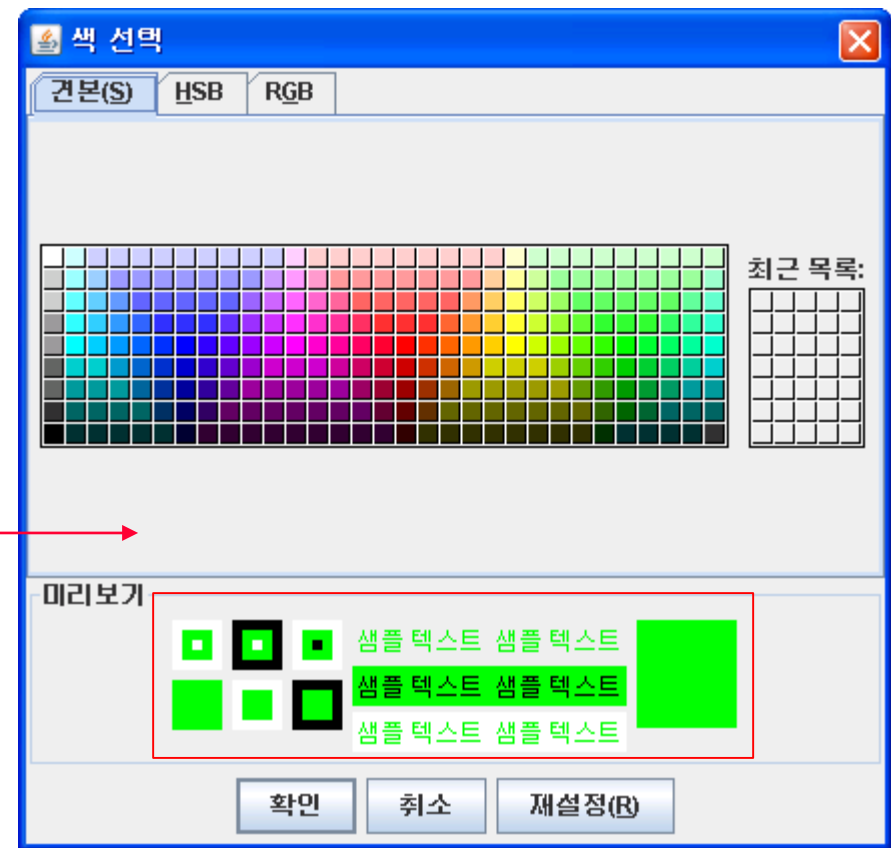


실습 3 : CommonDialog (2)

- [색(Color)] Button
 - (R, G, B) TextField의 입력값에 따라 ColorChooser의 색을 지정하라.



색(Green) 지정



```
// CommonDialog.java
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;

public class CommonDialog {
    public static void main(String[] args) {
        JFrame frame = new JFrame("CommonDialog Example");
        JButton openButton = new JButton("파일 열기(Open)");
        JButton saveButton = new JButton("파일 저장(Save)");
        JTextField fileNameField = new JTextField("C:\\Share\\While_KeyValue.class");
        JTextField RField = new JTextField("0");
        JTextField GField = new JTextField("255");
        JTextField BField = new JTextField("0");
        JButton colorButton = new JButton("색(Color)");

        frame.add(openButton);
        frame.add(saveButton);
        frame.add(fileNameField);
        frame.add(RField);
        frame.add(GField);
        frame.add(BField);
        frame.add(colorButton);

        frame.pack();
        frame.setVisible(true);
    }
}
```



실습 3 : CommonDialog (3)

- ❖ [파일 열기(Open)] Button Event Handler
- ❖ [파일 저장(Save)] Button Event Handler

```
MainFrame.java * - Editor
MainFrame.java *
Source Design
private void btnFileOpenActionPerformed(java.awt.event.ActionEvent evt) {
    jFileChooser1.showOpenDialog(null);
    1
}
private void btnFileSaveActionPerformed(java.awt.event.ActionEvent evt) {
    jFileChooser1.showSaveDialog(null);
}
185:57 INS
```





실습 3 : CommonDialog (4)

❖ [색(Color)] Button Event Handler

◆ Color 클래스 사용

```
MainFrame.java - Editor
MainFrame.java x
Source Design
169 private void btnColorActionPerformed(java.awt.event.ActionEvent evt) {
170
171
172
173
174
175
176
177
178
179 jColorChooser1.showDialog(null, "색 선택", cData);
180
181
182
189:32 INS
```



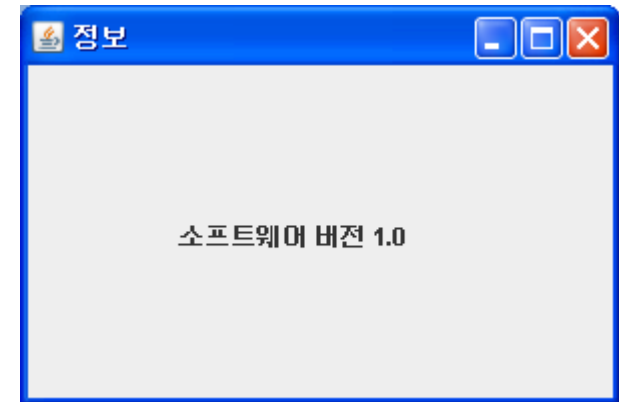


Frame (1)

Frame

❖ 기능

- ◆ Windows 구조의 application 구현
- ◆ 테두리, 메뉴바, Title 제공



❖ 생성자

생성자	
Public Frame()	기본 생성자
Public Frame(String strTitle)	TitleBar의 문자열 지정





Frame (2)

❖ 메서드

메서드	기능
public String getTitle()	Title 문자열 반환
public String setTitle()	Title 문자열 지정
public boolean isResizable()	크기 변경 여부 반환
public void setMenuBar(MenuBar mnuBar)	메뉴바 등록
public void setResizable(boolean b)	크기 변경 여부 지정



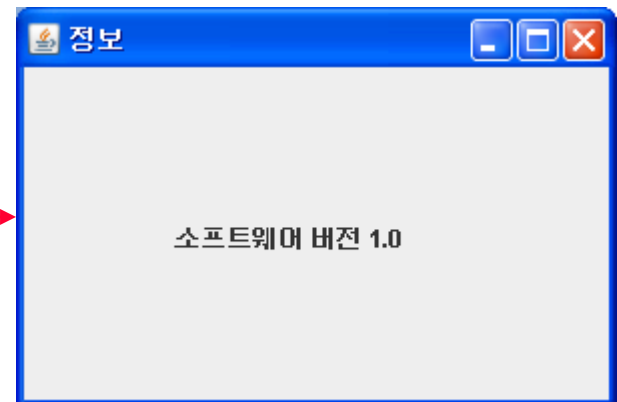


실습 4 : Frame

❖ Project Name: Frame_Source(실습시간 : 20분)

■ [Frame 호출] Button

• 정보 Frame(frmInformation) 호출



```
// Reading a file  
try {  
    FileInputStream fis = new FileInputStream("data.txt");  
    byte[] b = new byte[1024];  
    int len; // length of data read  
    while ((len = fis.read(b)) != -1) {  
        // Print out the data read  
        System.out.println(new String(b, 0, len));  
    }  
    fis.close();  
} catch (IOException e) {  
    e.printStackTrace();  
}
```





실습 4 : Frame (1)

Application 생성

The screenshot illustrates the process of creating a new application in NetBeans IDE 6.0.1. The 'File' menu is open, and 'New Project...' is selected. The 'New Project' dialog is shown with 'Java Application' selected in the 'Projects' list. The 'Next >' button is highlighted.

1. 클릭 (Click)

2. 클릭 (Click)

3. 클릭 (Click)

NetBeans IDE 6.0.1

File Edit View Navigate Source Refactor

New Project... Ctrl+Shift+N

New File... Ctrl+N

Open Project... Ctrl+O

Open Recent Project

Close Project

Open File... Ctrl+F

Open Recent File

Project Group

Set Main Project

Project Properties

Save Ctrl+S

Save As... Ctrl+Shift+S

Save All Ctrl+Shift+A

Page Setup... Ctrl+P

Print... Ctrl+P

Print to HTML... Ctrl+Shift+P

Exit Ctrl+N

New Project

Steps

1. Choose Project
2. ...

Choose Project

Categories:

- Java
- NetBeans Modules
- Samples

Projects:

- Java Application
- Java Desktop Application
- Java Class Library
- Java Project with Existing Sources
- Java Project with Existing Ant Script

Description:

Creates a new Java SE application in a standard IDE project. You can also generate a main class in the project. Standard projects use an IDE-generated Ant build script to build, run, and debug your project.

Back Next > Finish Cancel Help





실습 4 : Frame (2)

■ Project Name and Location

❖ Project name: Frame_Source

New Java Application

Steps

1. Choose Project
2. **Name and Location**

Name and Location

Project Name: Frame_Source

Project Location: E:\W\LECTURE\Java_프로그래밍\Source Browse...

Project Folder: E:\CTURE\Java_프로그래밍\Source\Frame_Source

☒ Set as Main Project

☐ Create Main Class frame_source,Main

5. 클릭 → ☒ Set as Main Project

6. 클릭 → Finish

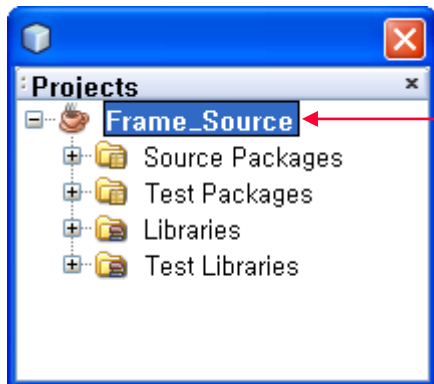
< Back Next > Finish Cancel Help





실습 4 : Frame (3)

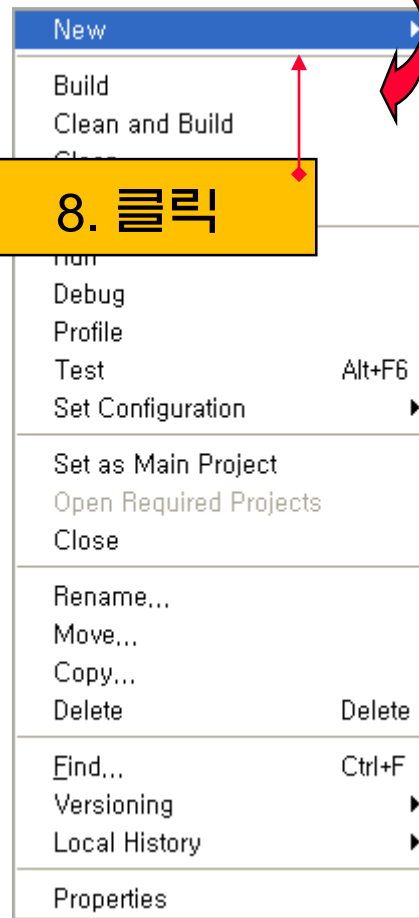
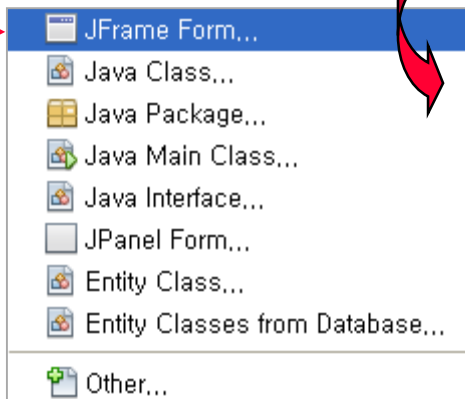
JFrame Form 생성



7. 마우스 오른쪽 버튼 클릭

8. 클릭

9. 클릭





실습 4 : Frame (4)

■ JFrame Form Name 지정

❖ MainFrame.java 생성

New JFrame Form

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

Class Name: **10. MainFrame 입력**

Project:

Location:

Package:

Created File:

11. 클릭

Warning: It is highly recommended that you do NOT place Java classes in the def...

< Back Next > **Finish** Cancel Help

Projects

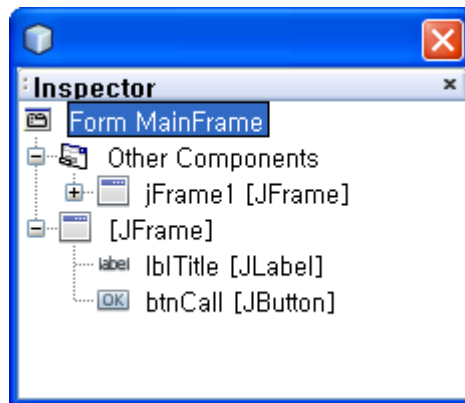
- Frame_Source
 - Source Packages
 - <default package>
 - MainFrame.java**
 - Test Packages
 - Libraries
 - Test Libraries



실습 4 : Frame (5)

■ 컨트롤 배치 및 속성 지정

❖ MainFrame



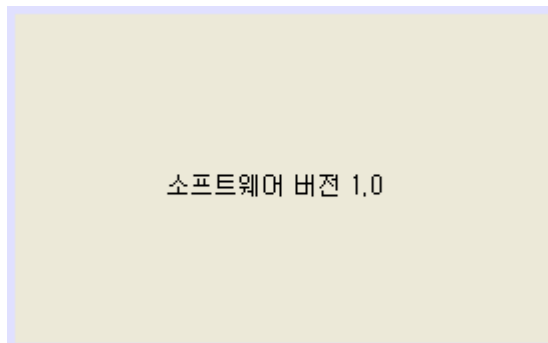
컨트롤	속성 지정
jLabel1	<ul style="list-style-type: none">• Variable Name : lblTitle• Text : Frame 호출 예제
jButton1	<ul style="list-style-type: none">• Variable Name : btnCall• Text : Frame 호출
jFrame1	<ul style="list-style-type: none">• Variable Name : frmInformation• Title : 정보





실습 4 : Frame (6)

❖ JFrame1



컨트롤	속성 지정
jLabel1	<ul style="list-style-type: none">• Variable Name : lblInformation• Text: 소프트웨어 버전 1.0





실습 4 : Frame (7)

❖ 컨트롤 속성 지정 Code

```
MainFrame.java - Editor
MainFrame.java x
Source Design
private void initComponents() {
    frmInformation = new javax.swing.JFrame();
    lblInformation = new javax.swing.JLabel();
    lblTitle = new javax.swing.JLabel();
    btnCall = new javax.swing.JButton();

    frmInformation.setTitle("정보");

    lblInformation.setText("소프트웨어 버전 1.0");

    javax.swing.GroupLayout frmInformationLayout = new javax.swing.GroupLayout(frmInformation.getContentPane());
    frmInformationLayout.setHorizontalGroup(
        frmInformationLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(frmInformationLayout.createSequentialGroup()
                .addGap(75, 75, 75)
                .addComponent(lblInformation)
                .addGap(84, Short.MAX_VALUE))
    );
}
```





실습 4 : Frame (8)

❖ 컨트롤 속성 지정 Code

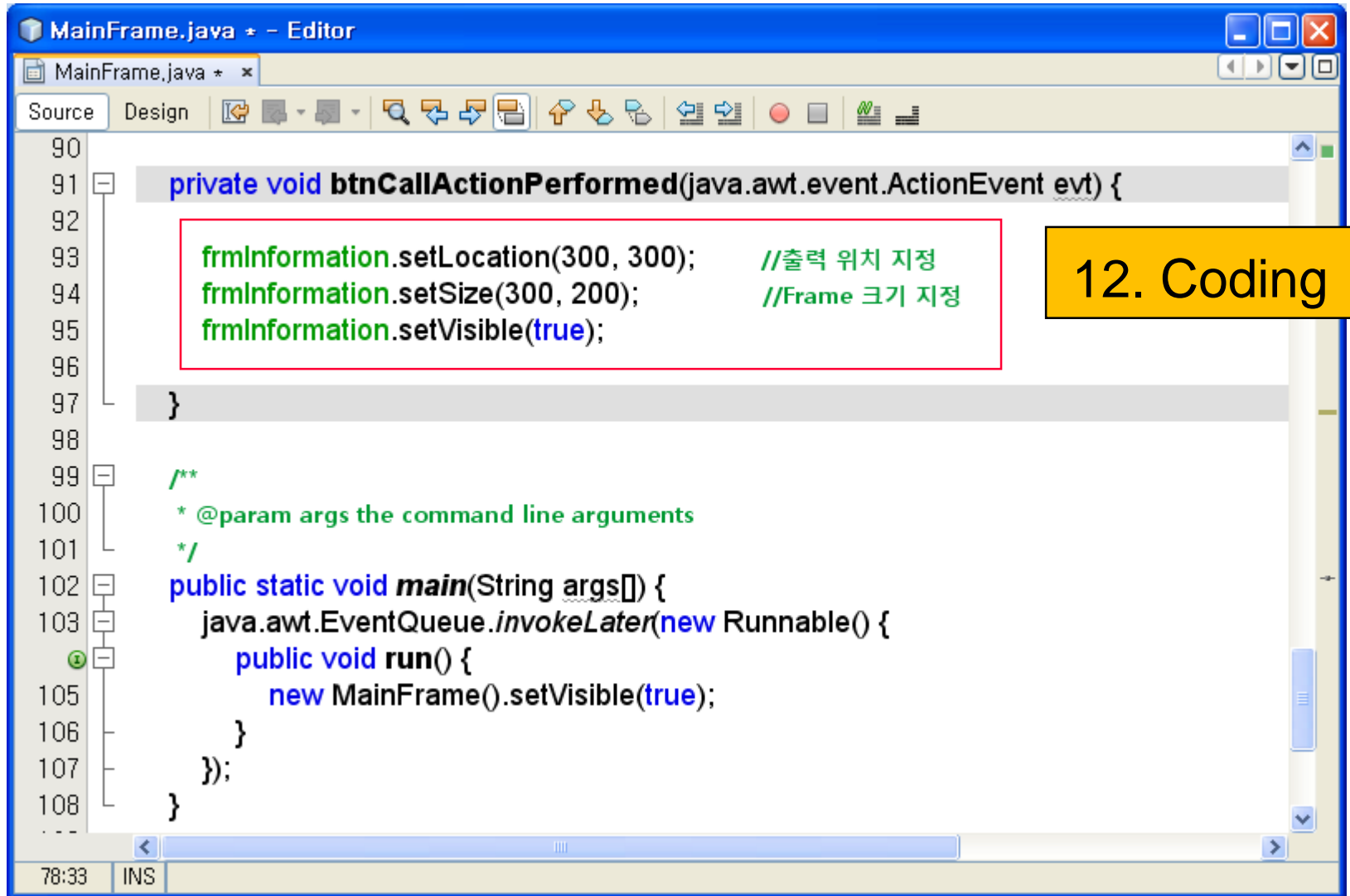
```
MainFrame.java - Editor
MainFrame.java x
Source Design
53
54 setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
55
56 lblTitle.setText("Frame 호출 예제");
57
58 btnCall.setText("Frame 호출");
59 btnCall.addActionListener(new java.awt.event.ActionListener() {
60     public void actionPerformed(java.awt.event.ActionEvent evt) {
61         btnCallActionPerformed(evt);
62     }
63 });
64
65 javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane(
66     getContentPane().setLayout(layout);
67     layout.setHorizontalGroup(
68         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
69             .addGroup(layout.createSequentialGroup()
70                 .addGap(74, 74, 74)
71                 .addComponent(lblTitle)
```





실습 4 : Frame (9)

❖ [Frame 호출] Button Event Handler



```
90
91 private void btnCallActionPerformed(java.awt.event.ActionEvent evt) {
92
93     frmInformation.setLocation(300, 300);    //출력 위치 지정
94     frmInformation.setSize(300, 200);        //Frame 크기 지정
95     frmInformation.setVisible(true);
96
97 }
98
99 /**
100  * @param args the command line arguments
101  */
102 public static void main(String args[]) {
103     java.awt.EventQueue.invokeLater(new Runnable() {
104         public void run() {
105             new MainFrame().setVisible(true);
106         }
107     });
108 }
```

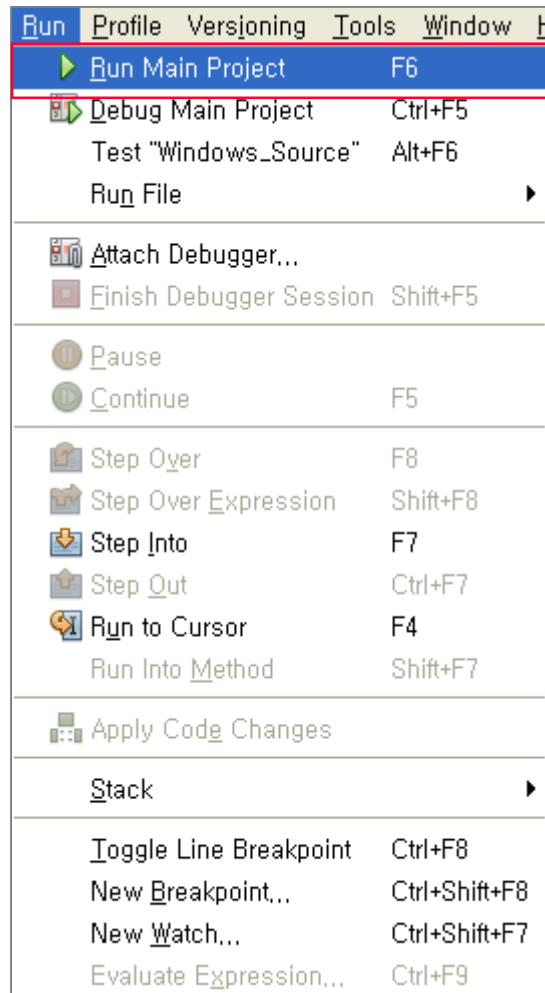
12. Coding



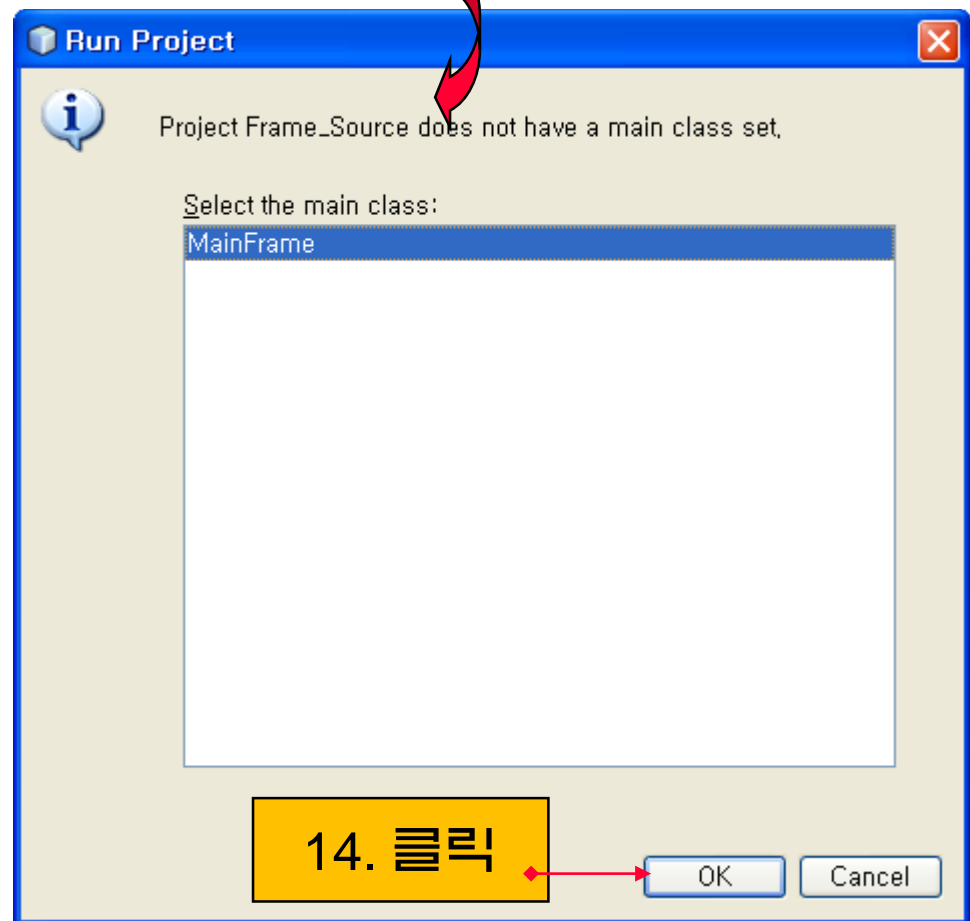


실습 4 : Frame (10)

실행



13. 클릭



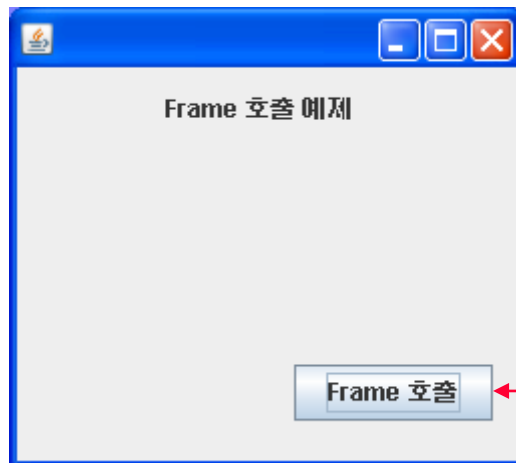


실습 4 : Frame (11)

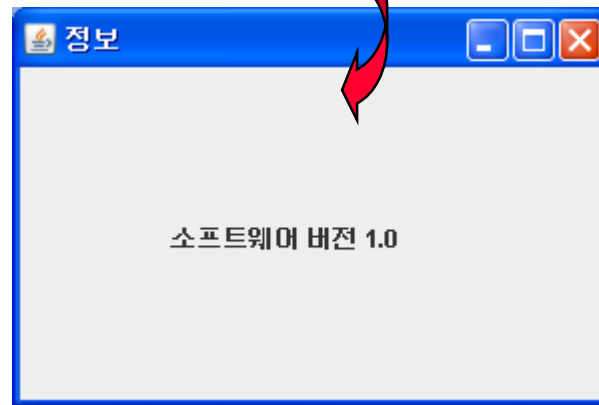
■ 실행 결과

❖ [Frame 호출] Button 클릭

◆ 정보 Frame(frmInformation) 호출



15. 클릭





학습 요약

- Dialog
- FileDialog
- ColorDialog
- Frame

