



Video Player 구현





학습 목표

교육 목표

- ❖ Android Video
- ❖ Android Video 재생 구현
- ❖ 실습 I : Video Player 구현



Navigation voice



Traffic view



Street View





Android Video

■ Android 지원 Video 형식

- ❖ MP4 (MPEG-4 낮은 비트 속도)
- ❖ H.263
- ❖ H.264 (AVC)
- ❖ 윈도우 SDK 상에서는 MP4 만이 안정적으로 동작

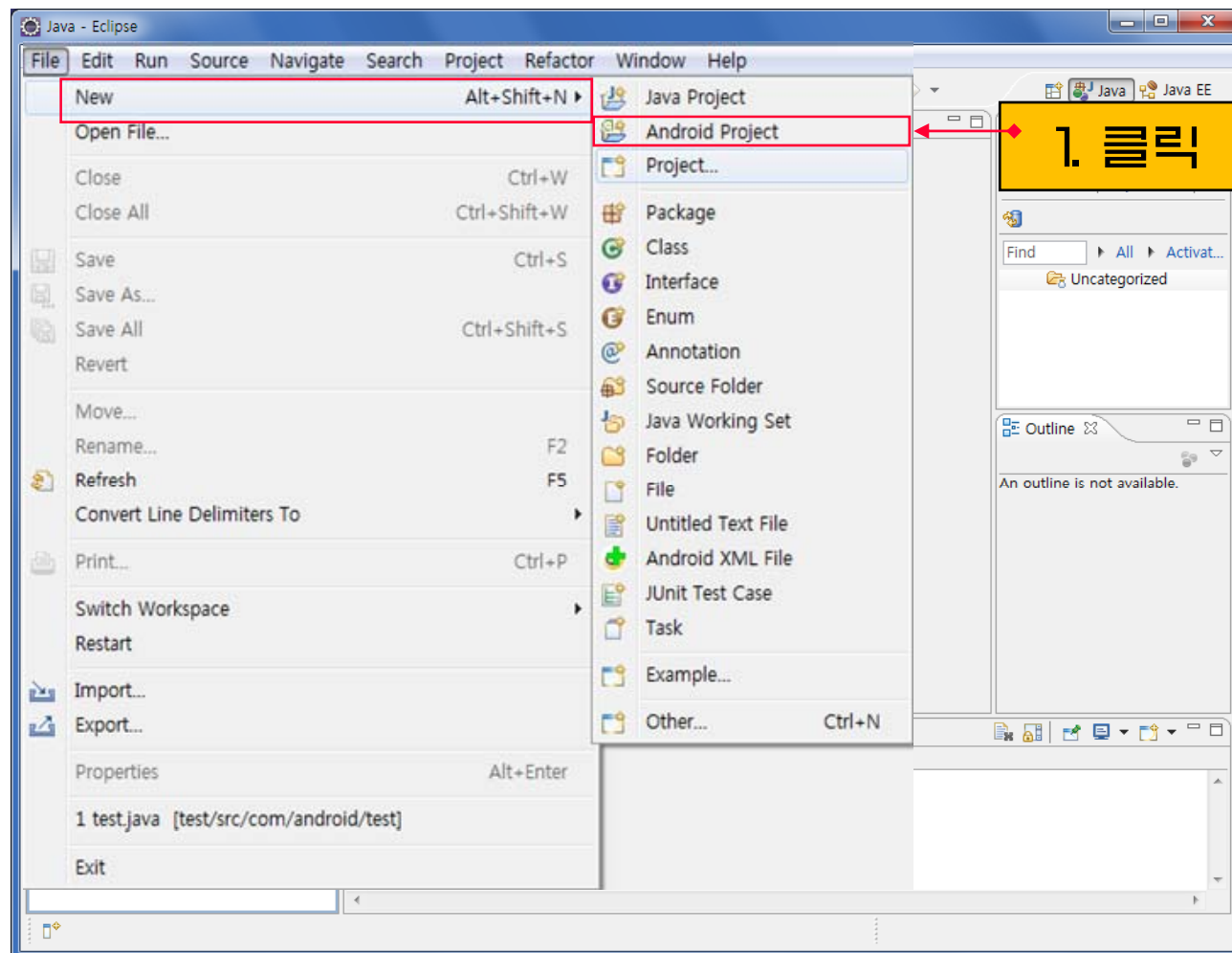




Android Video 재생 구현 (1)

■ Android 프로젝트 생성

❖ 프로젝트 명 : Android_Video





Android Video 재생 구현 (2)

New Android Project

Creates a new Android Project resource.

Project name:

Contents

- ☒ Create new project in workspace
- ☐ Create project from existing source
- ☒ Use default location

Location:

☐ Create project from existing sample

Samples:

Build Target

Target Name	Vendor	Platform	API ...
<input type="checkbox"/> Android 1.1	Android Open Source Project	1.1	2
<input type="checkbox"/> Android 2.0.1	Android Open Source Project	2.0.1	6
<input checked="" type="checkbox"/> Android 2.1	Android Open Source Project	2.1	7
<input type="checkbox"/> Google APIs	Google Inc.	2.0.1	6
<input type="checkbox"/> Google APIs	Google Inc.	2.1	7

Standard Android platform 2.1

Properties

Application name:

Package name:

☒ Create Activity:

Min SDK Version:

2. Android_Video 입력

3. 클릭

4. Android_Video 입력

5. com.inhatec.android_Video 입력

6. Android_Video 입력

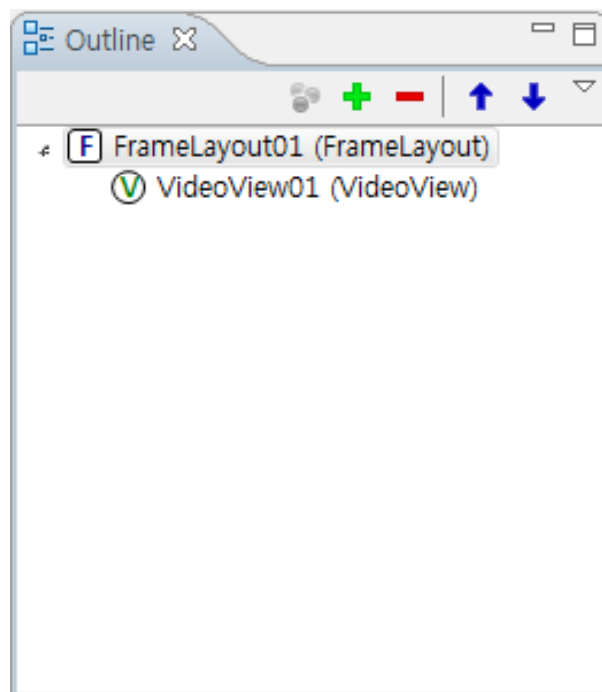
7. 클릭





Android Video 재생 구현 (3)

■ UI 설계



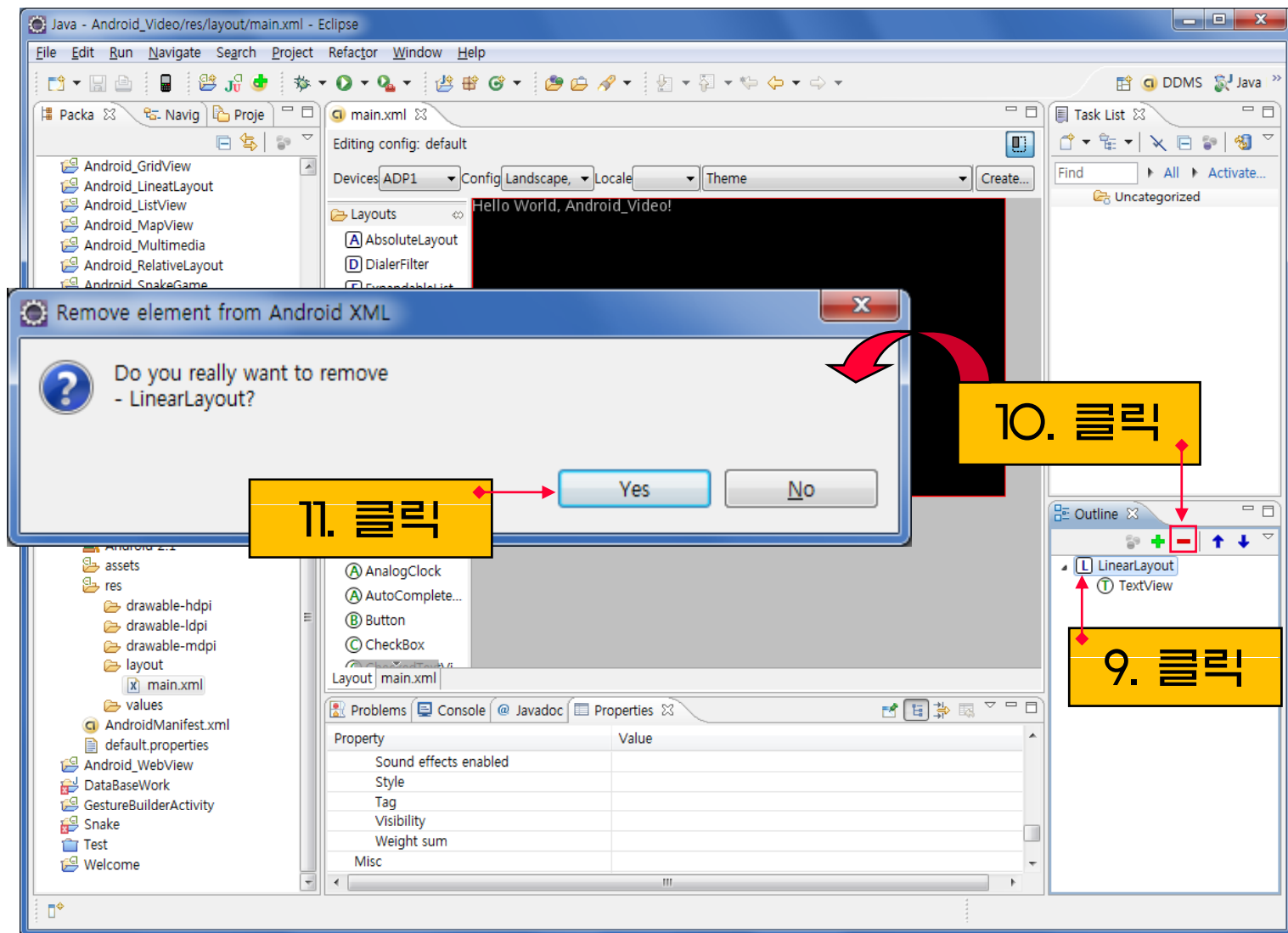
8. UI 설계 및 속성 지정





Android Video 재생 구현 (4)

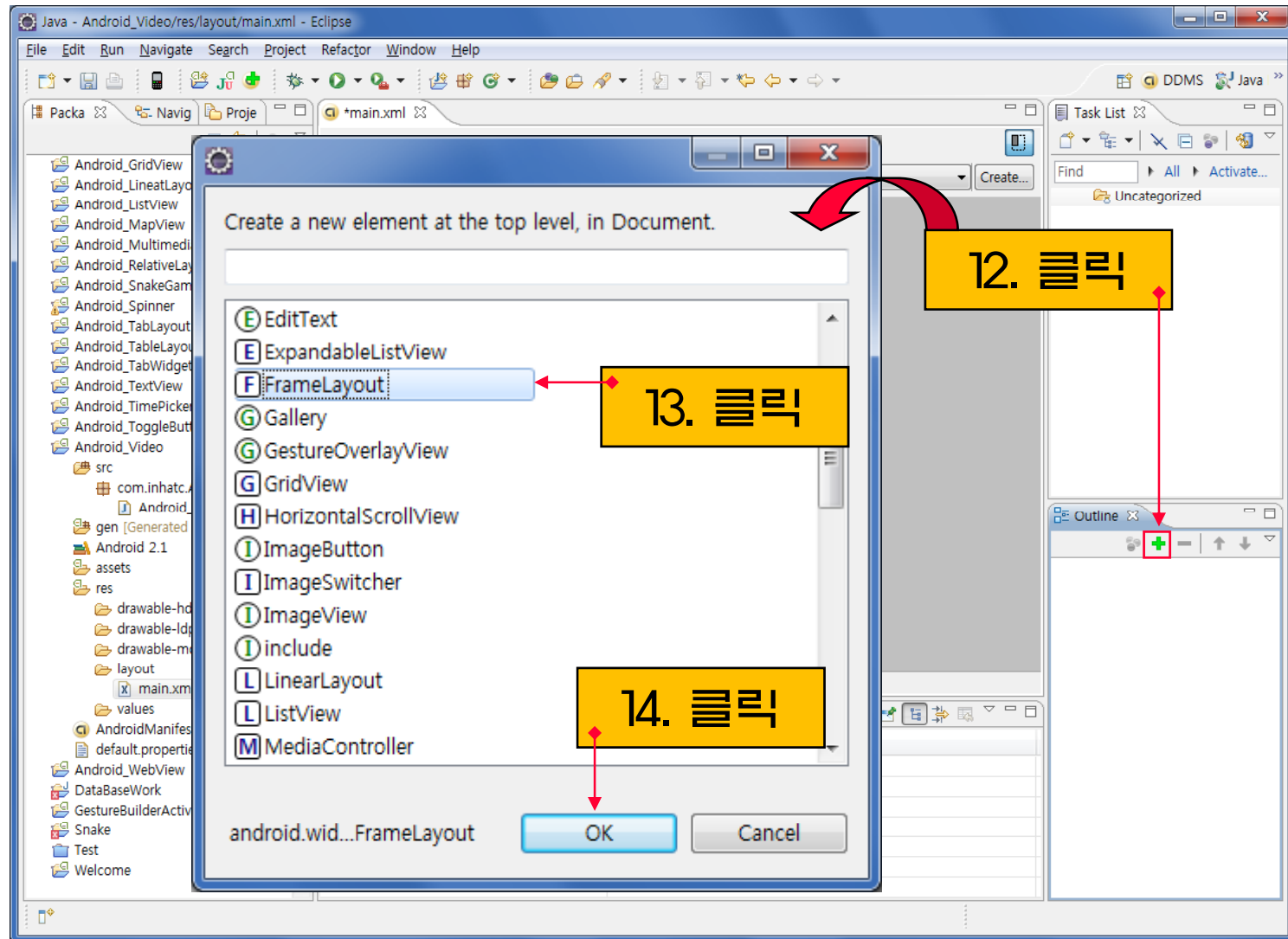
❖ LinearLayout 삭제





Android Video 재생 구현 (5)

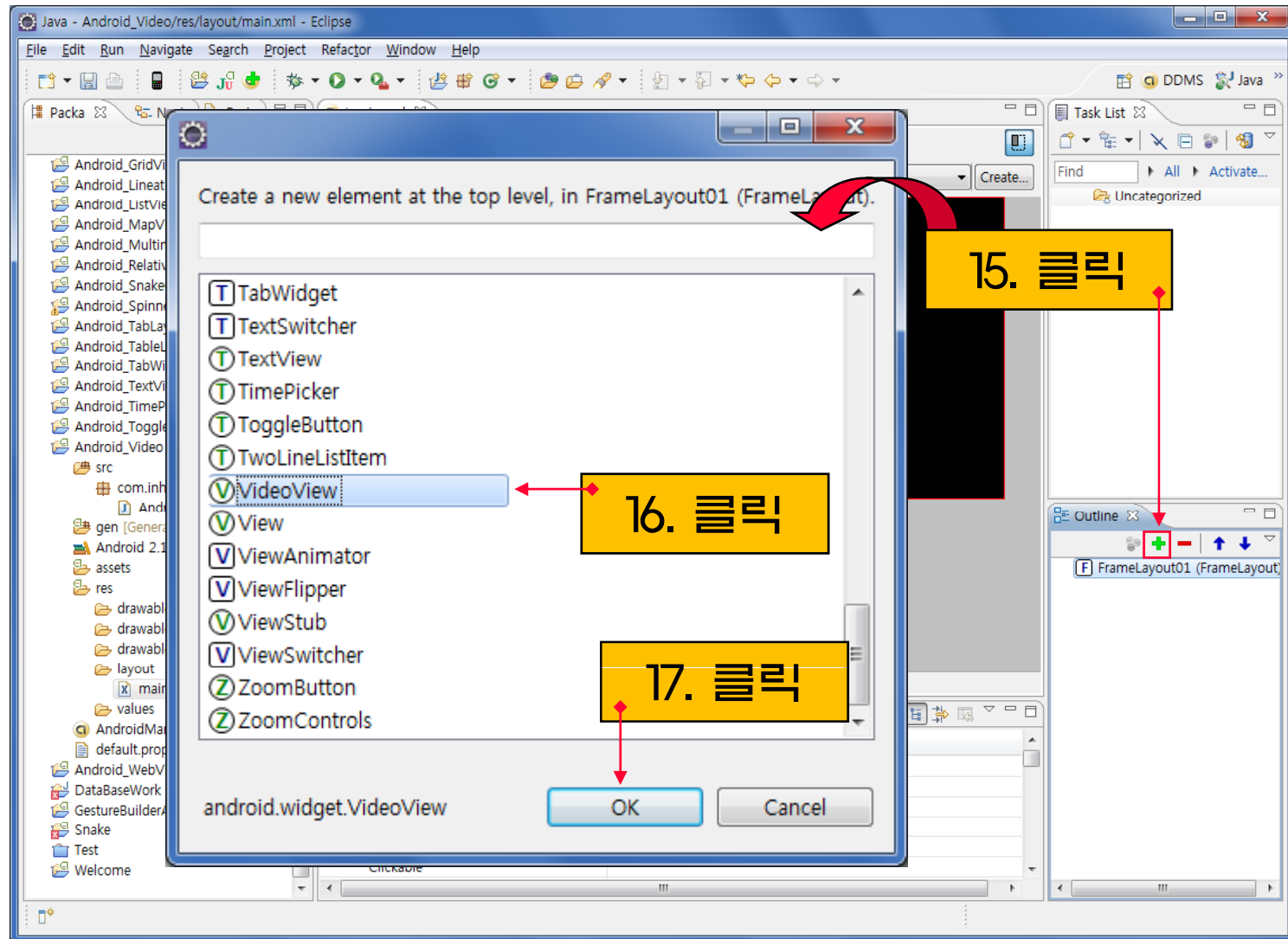
❖ FrameLayout 추가





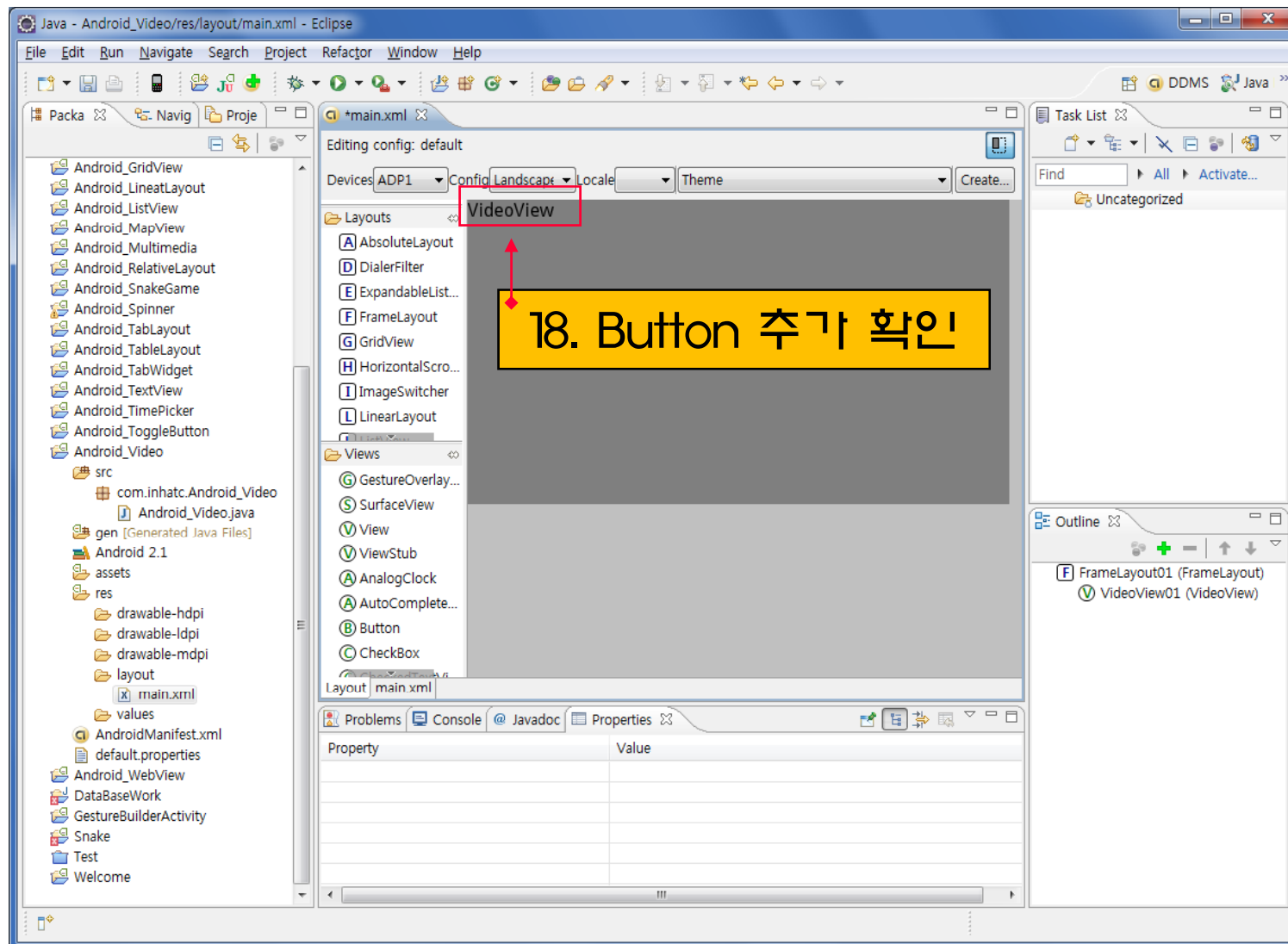
Android Video 재생 구현 (6)

❖ VideoView 추가





Android Video 재생 구현 (7)





Android Video 재생 구현 (8)

❖ FrameLayout01, VideoView01 속성 지정

컨트롤	속성 지정
FrameLayout01	<ul style="list-style-type: none">• android:id="@+id/FrameLayout01"• android:layout_width="fill_parent"• android:layout_height="fill_parent"• xmlns:android="http://schemas.android.com/apk/res/android"
VideoView01	<ul style="list-style-type: none">• android:id="@+id/VideoView01"• android:layout_width="wrap_content"• android:layout_height="wrap_content"• android:layout_gravity="center"





Android Video 재생 구현 (9)

■ Main.xml 수정

```
*main.xml
1<?xml version="1.0" encoding="utf-8"?>
2
3<FrameLayout
4    android:id="@+id/FrameLayout01"
5    android:layout_width="fill_parent"
6    android:layout_height="fill_parent"
7    xmlns:android="http://schemas.android.com/apk/res/android">
8    <VideoView
9        android:id="@+id/VideoView01"
10        android:layout_width="wrap_content"
11        android:layout_height="wrap_content"
12        android:layout_gravity="center">
13    </VideoView>
14</FrameLayout>
```

19. XML code 수정 확인





Android Video 재생 구현 (10)

❖ Main.xml 수정 확인

21. 속성 지정 확인

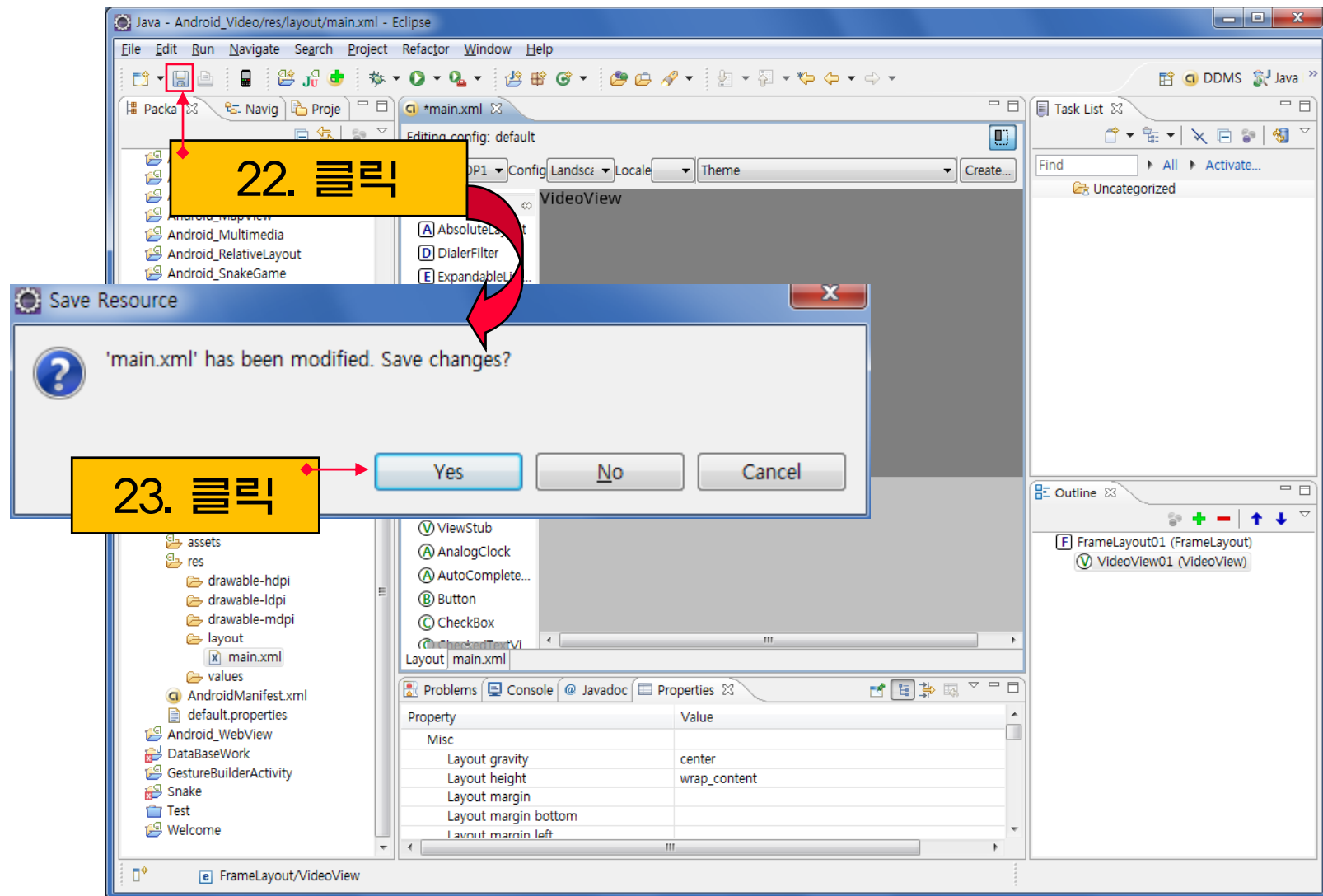
20. 클릭

Property	Value
Misc	
Layout gravity	center
Layout height	wrap_content
Layout margin	
Layout margin bottom	
Layout margin left	



Android Video 재생 구현 (11)

❖ Main.xml 저장





Android Video 재생 구현 (12)

❖ R.java

```
R.java x
1  /* AUTO-GENERATED FILE.  DO NOT MODIFY.
7
8  package com.inhatec.Android_Video;
9
10 public final class R {
11     public static final class attr {
12     }
13     public static final class drawable {
14         public static final int icon=0x7f020000;
15     }
16     public static final class id {
17         public static final int FrameLayout01=0x7f050000;
18         public static final int VideoView01=0x7f050001;
19     }
20     public static final class layout {
21         public static final int main=0x7f030000;
22     }
23     public static final class string {
24         public static final int app_name=0x7f040001;
25         public static final int hello=0x7f040000;
26     }
27 }
```

24. id 클래스 변수 추가 확인





Android Video 재생 구현 (13)

❖ AndroidManifest.xml 수정

```
*Android_Video Manifest
1<?xml version="1.0" encoding="utf-8"?>
2<manifest xmlns:android="http://schemas.android.com/apk/res/android"
3    package="com.inhatec.Android_Video"
4    android:versionCode="1"
5    android:versionName="1.0">
6    <application android:icon="@drawable/icon"
7        android:label="@string/app_name">
8        <activity android:name=".Android_Video"
9            android:label="@string/app_name"
10           android:theme="@android:style/Theme.NoTitleBar.Fullscreen">
11            <intent-filter>
12                <action android:name="android.intent.action.MAIN" />
13                <category android:name="android.intent.category.LAUNCHER" />
14            </intent-filter>
15        </activity>
16    </application>
17    <uses-sdk android:minSdkVersion="7" />
18
19
20</manifest>
```

26. 입력

25. 클릭





Android Video 재생 구현 (14)

■ Android_Video.java

```
*Android_Video.java
2
3 import android.app.Activity;
4 import android.os.Bundle;
5 import android.widget.VideoView;
6
7 public class Android_Video extends Activity {
8
9     VideoView objVideo;    //VideoView 객체 선언
10
11     /** Called when the activity is first created. */
12     @Override
13     public void onCreate(Bundle savedInstanceState) {
14         super.onCreate(savedInstanceState);
15         setContentView(R.layout.main);
16
17         objVideo = (VideoView) findViewById(R.id.VideoView01);
18
19         // Load and start the movie
20         objVideo.setVideoPath("/data/wildlife.mp4");
21         objVideo.start();
22
23     }
24 }
```

27. Coding



Android Video 재생 구현 (15)

❖ Android 프로젝트 실행

The screenshot shows the Eclipse IDE interface. The 'Run' menu is open, and the 'Run As' dialog box is displayed. Annotations indicate the following steps:

- 28. 클릭**: Click on the 'Run' button in the Eclipse IDE (indicated by a red arrow pointing to the 'Run' button in the top toolbar).
- 29. 클릭**: Click on 'Android Application' in the 'Run As' dialog box (indicated by a red arrow pointing to the 'Android Application' option).
- 30. 클릭**: Click on the 'OK' button in the 'Run As' dialog box (indicated by a red arrow pointing to the 'OK' button).

The 'Run As' dialog box shows the following options:

- Android Application
- Android JUnit Test
- Java Applet
- Java Application
- JUnit Test

The description for 'Android Application' is: 'Runs an Android Application'.

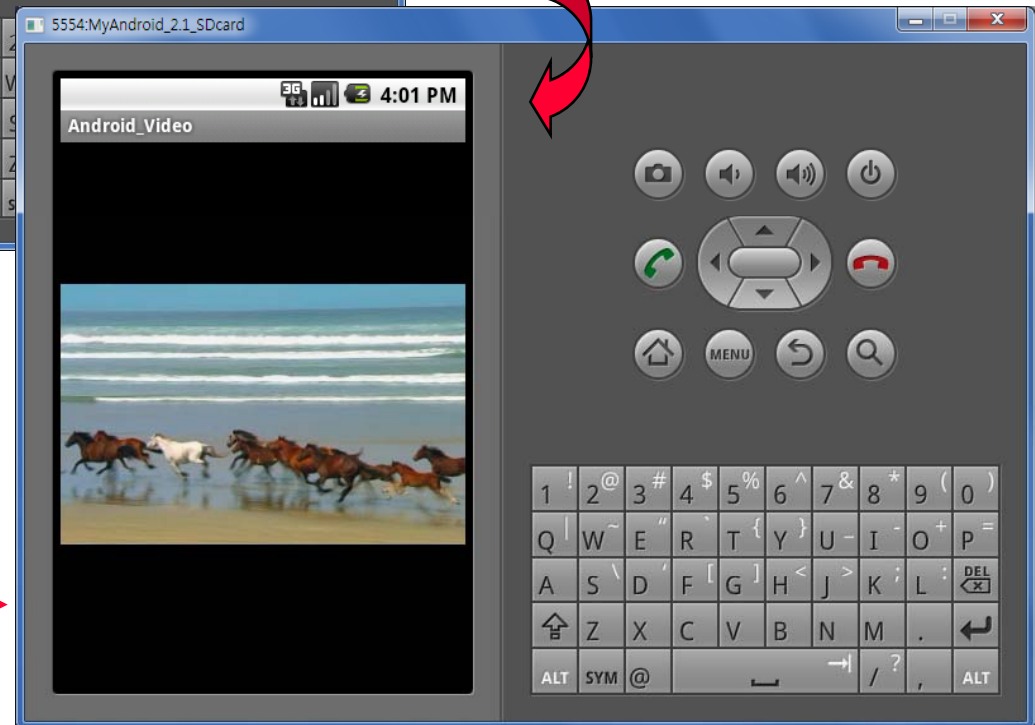


Android Video 재생 구현 (16)

❖ 실행 결과



31. 클릭



32. 결과 확인





Emulator : Video 파일 복사 (1)

■ Command Prompt 실행

❖ C:\Android\SDK\tools

```
C:\>명령 프롬프트
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Lee Won-Joo>cd c:\Android\SDK\tools
c:\Android\SDK\tools>dir
C 드라이브의 볼륨: SYSTEM
볼륨 일련 번호: EA50-377A

2009-11-19 오후 01:02          30,963 hprof-conv.exe
2009-12-27 오전 01:28             <DIR>          Jet
2009-11-19 오후 01:02          1,544 layoutopt.bat
2009-12-27 오전 01:28             <DIR>          lib
2009-11-19 오후 01:02          86,528 mgwz.dll
2009-11-19 오후 01:02          29,498 mksdcard.exe
2004-09-08 오후 08:51       2,334,268 music.mp3
2009-11-19 오전 11:13        192,163 NOTICE.txt
2009-11-19 오전 11:13           33 source.properties
2009-11-19 오후 01:02       1,648,366 sqlite3.exe
2009-11-19 오후 01:02           1,845 traceview.bat
2010-03-09 오전 12:59       763,987 wildlife.mp4
2009-11-19 오후 01:02       1,447,375 zipalign.exe
                23개 파일             21,297,481 바이트
                4개 디렉터리 102,949,359,616 바이트 남음

c:\Android\SDK\tools>
```

1. 폴더 이동

2. 파일 확인





Emulator : Video 파일 복사 (2)

■ wildlife.mp4 → /data/wildlife.mp4

❖ adb.exe 명령어 사용

```
C:\Android\SDK\tools> adb push wildlife.mp4 /data/wildlife.mp4
```

```
C:\> 명령 프롬프트
2009-11-19 오후 01:02      86,528 mgwz.dll
2009-11-19 오후 01:02      29,498 mksdcard.exe
2004-09-08 오후 08:51    2,334,268 music.mp3
2009-11-19 오전 11:13    192,163 NOTICE.txt
2009-11-19 오후 11:13         33 source.properties
2009-11-19 오후 01:02    1,648,366 sqlite3.exe
2009-11-19 오후 01:02       1,845 traceview.bat
2010-03-09 오전 12:59    763,987 wildlife.mp4
2009-11-19 오후 01:02    1,447,375 zipalign.exe
                23개 파일                21,297,481 바이트
                4개 디렉터리 102,949,359,616 바이트 남음

c:\WAndroid\SDK\tools>adb push wildlife.mp4 /data/wildlife.mp4
1437 KB/s <763987 bytes in 0.519s>

c:\WAndroid\SDK\tools>_
```

3. /data 폴더에 저장





Emulator : Video 파일 복사 (3)

■ music.mp3 저장 확인

```
CA. 명령 프롬프트 - adb shell
C:\Android\SDK\tools>adb shell
# ls
ls
sqlite_stmt_journals
config
cache
sdcard
d
etc
system
sys
shin
proc
init.rc
init.goldfish.rc
init
default.prop
data
root
dev
#
```

4. "adb shell" 실행

5. "ls" 명령어 실행

6. "cd data" 폴더 이동

7. "ls" 명령어 실행

8. "wildlife.mp4" 파일 저장 확인

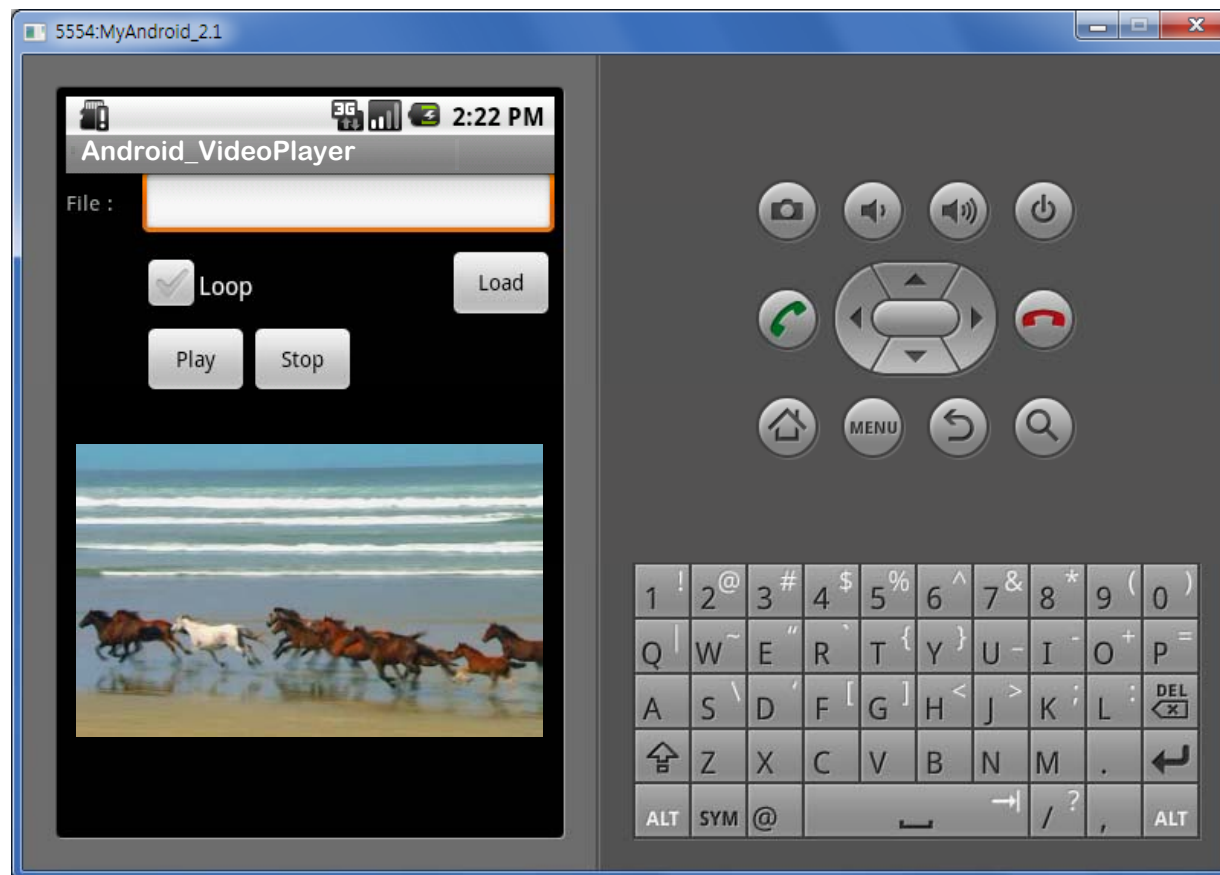


실습 I : Audio Player 구현

■ Android_VideoPlayer2 (실습 시간 : 30분)

❖ 아래 그림과 같이 VideoPlayer를 구현하시오.

◆ Project Name : Android_VideoPlayer2





학습 요약

- Android Video
- Android Video 재생 구현
- 실습 I : Video Player 구현



open handset alliance

