



android



Web View 구현

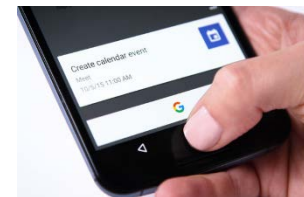
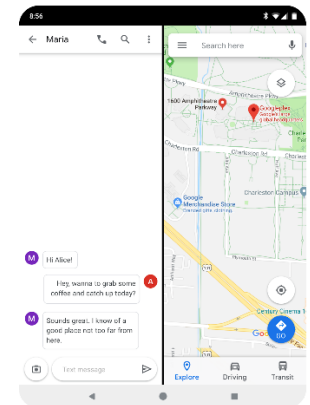
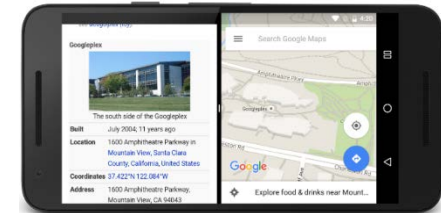




학습 목표

교육 목표

❖ Web View 구현





Web View

■ Web View

❖ 기능

◆ Web Pages를 보여 주는 기능 제공

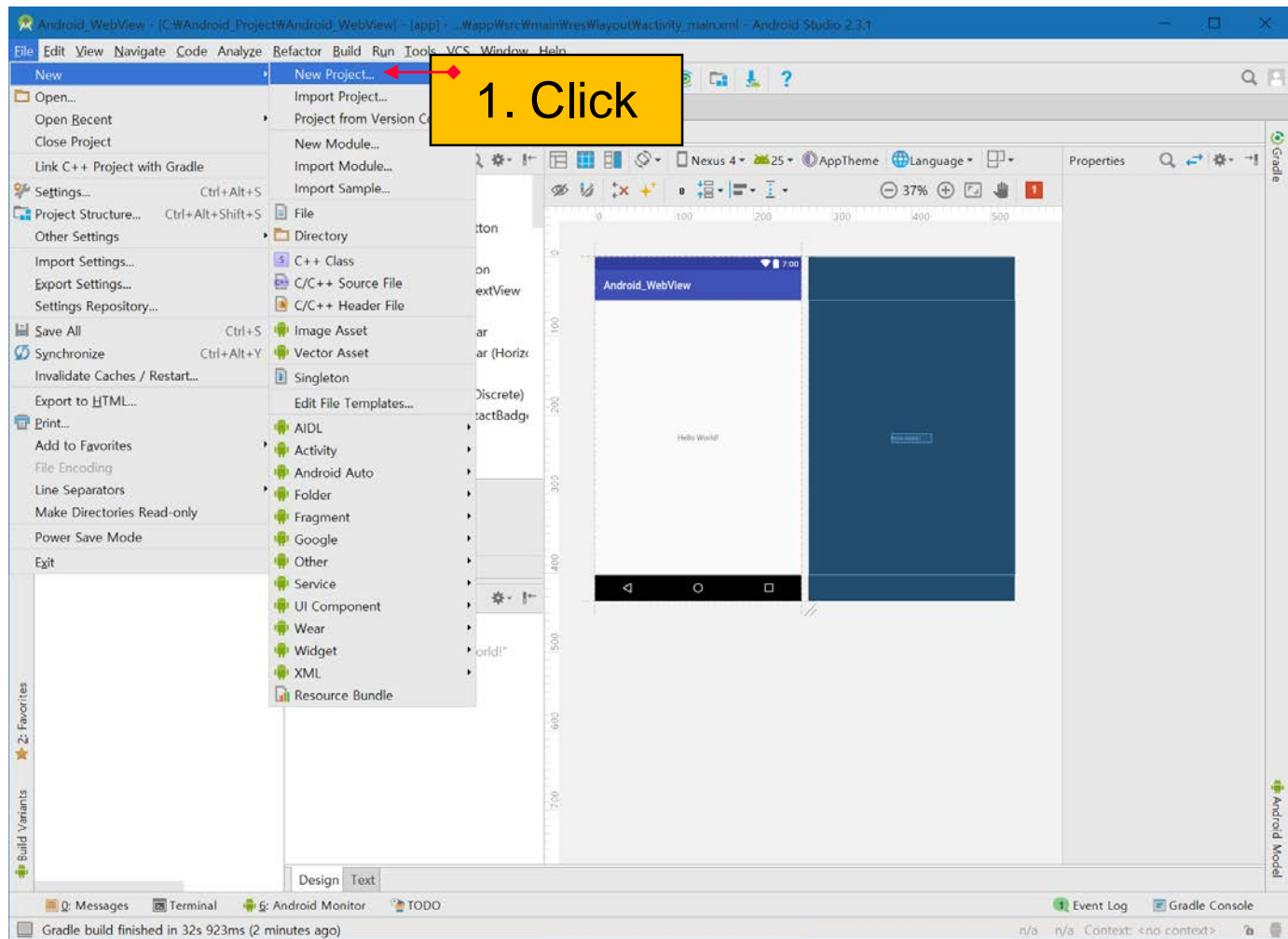




Web View 구현 (1)

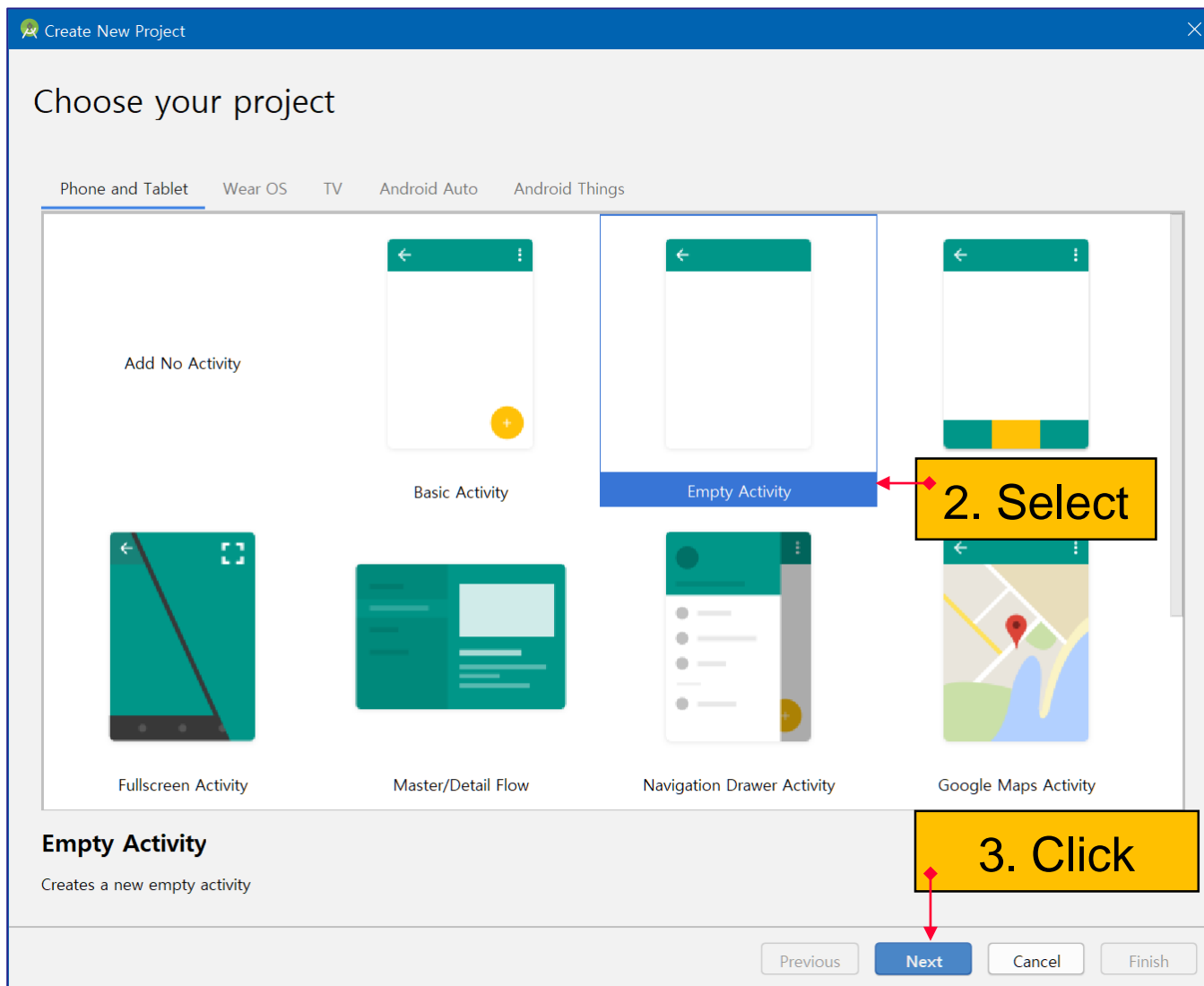
■ Android 프로젝트 생성

❖ 프로젝트 명 : Android_WebView





Web View 구현 (2)





Web View 구현 (3)

Create New Project

Configure your project

Name
Android_WebView

Package name
com.inhatc.android_webview

Save location
C:\Android_Project\Android_WebView

Language
Java

Minimum API level
API 26: Android 8.0 (Oreo)

☐ Your app will run on approximately 6.0% of devices.
[Help me choose](#)

☐ This project will support instant apps

☐ Use AndroidX artifacts

Empty Activity

Creates a new empty activity

Previous Next Cancel Finish

4. Input "Android_WebView"

5. Input "com.inhatc. android_webview"

6. Select

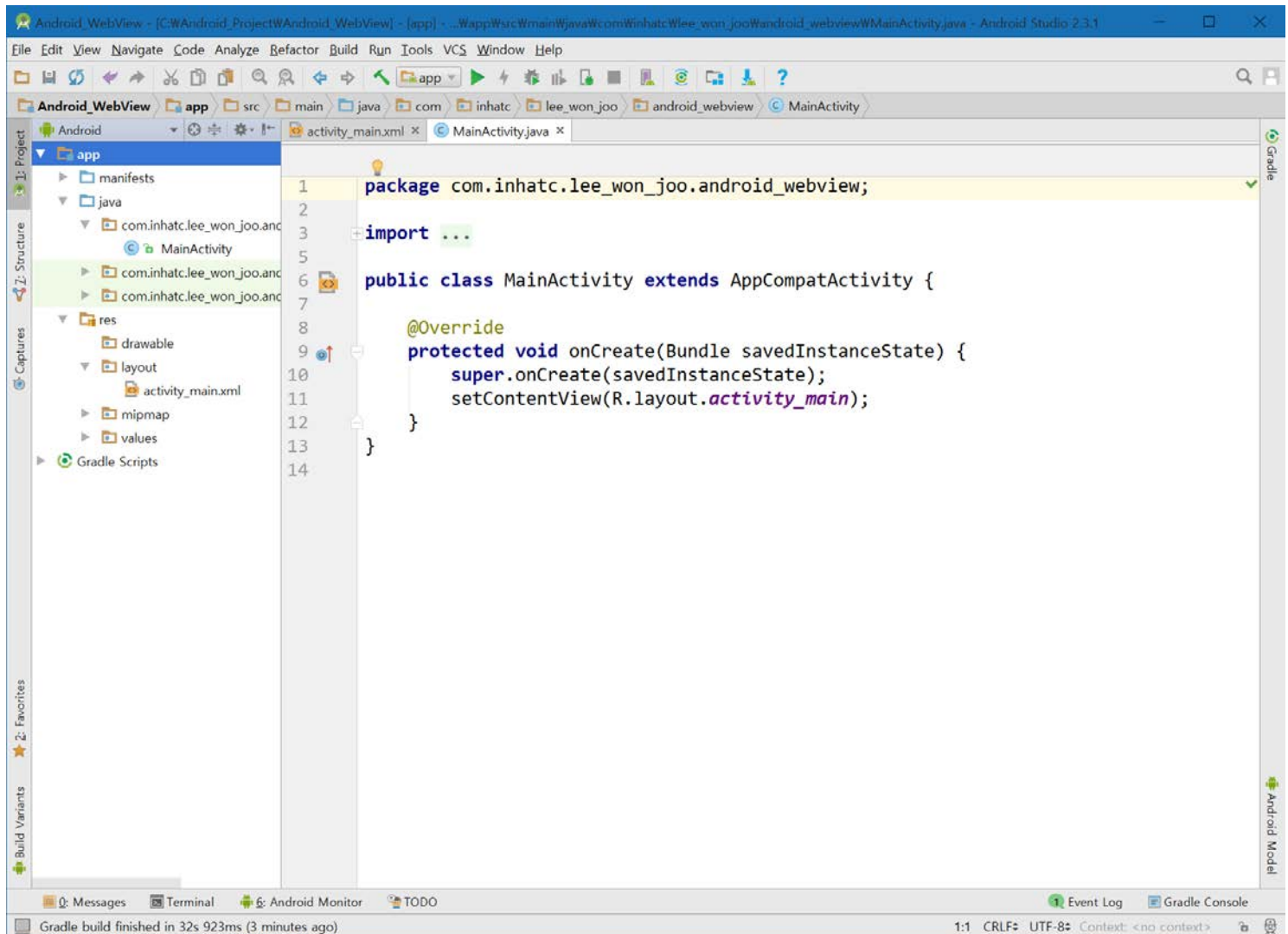
7. Select

8. Click



Web View 구현 (4)

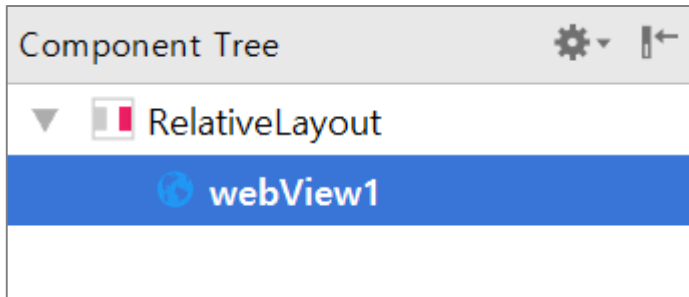
❖ Android 프로젝트 생성 완료





Web View 구현 (5)

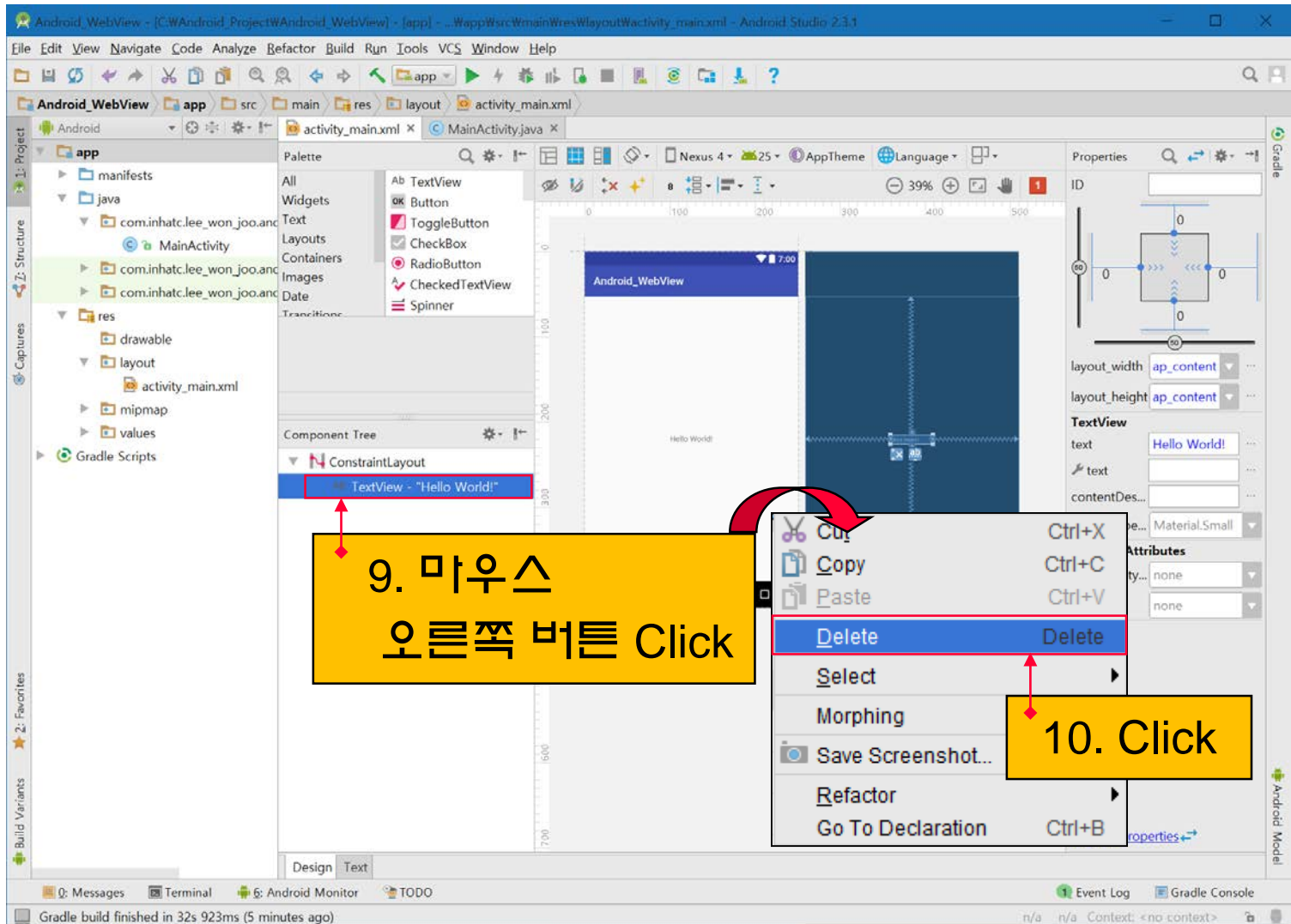
■ UI 설계





Web View 구현 (6)

❖ TextView 삭제





Web View 구현 (7)

❖ Relative Layout 속성 지정

컨트롤	속성 지정
Relative Layout	<ul style="list-style-type: none">• android:layout_width="match_parent"• android:layout_height="match_parent"• tools:context=".MainActivity"• android:orientation="vertical"

```
activity_main.xml ×
1  <?xml version="1.0" encoding="utf-8"?>
2  <RelativeLayout
3      xmlns:android="http://schemas.android.com/apk/res/android"
4      xmlns:app="http://schemas.android.com/apk/res-auto"
5      xmlns:tools="http://schemas.android.com/tools"
6      android:layout_width="match_parent"
7      android:layout_height="match_parent"
8      android:orientation="vertical"
9      tools:context="com.inhatc.lee_won_joo.android_webview.MainActivity">
10
Design Text
```





Web View 구현 (8)

■ activity_main.xml 수정

❖ Web View 추가

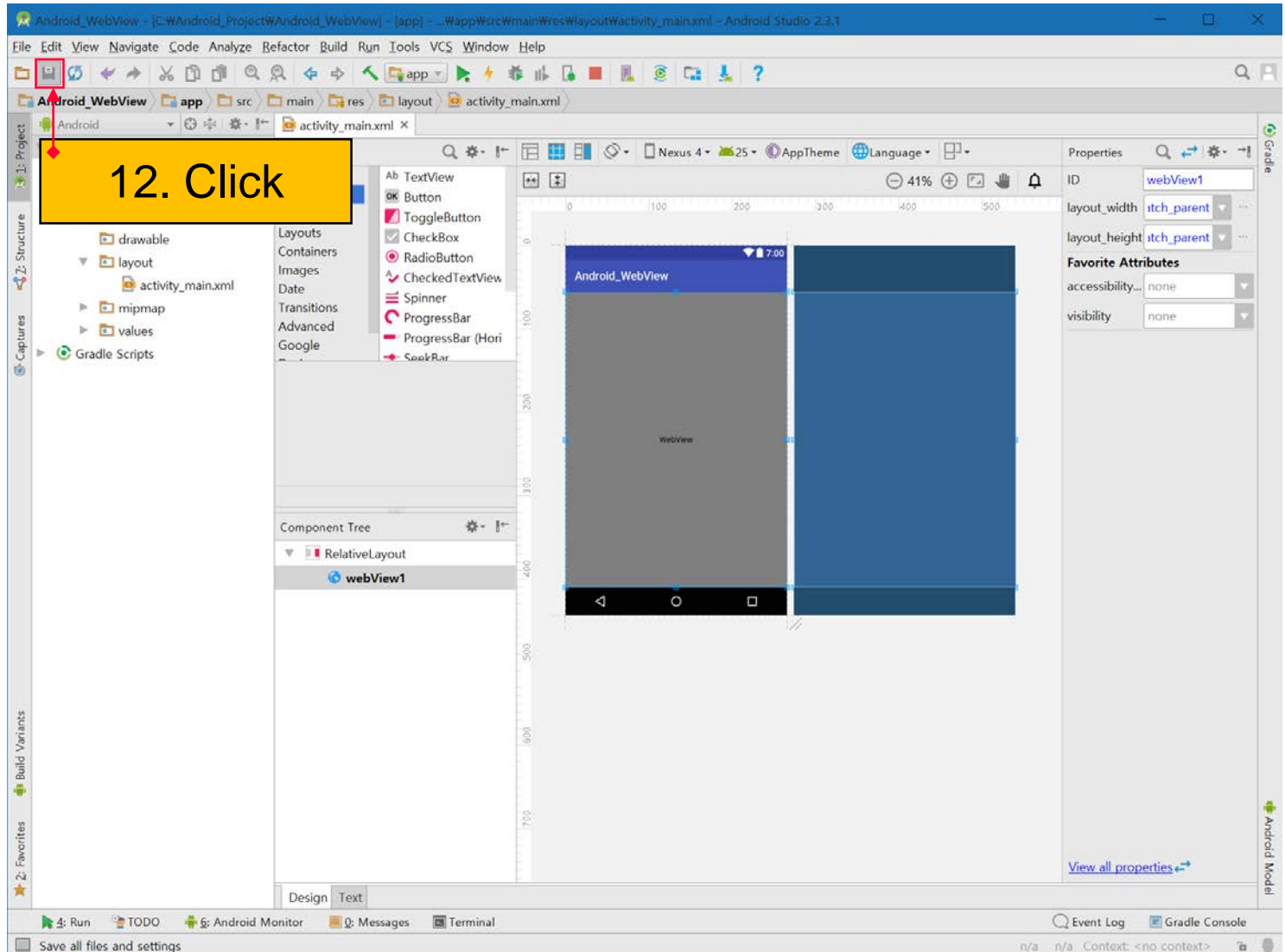
```
activity_main.xml x
1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout
3     xmlns:android="http://schemas.android.com/apk/res/android"
4     xmlns:app="http://schemas.android.com/apk/res-auto"
5     xmlns:tools="http://schemas.android.com/tools"
6     android:layout_width="match_parent"
7     android:layout_height="match_parent"
8     android:orientation="vertical"
9     tools:context="com.inhatc.lee_won_joo.android_webview.MainActivity">
10
11     <WebView
12         android:id="@+id/webView1"
13         android:layout_width="match_parent"
14         android:layout_height="match_parent" />
15 </RelativeLayout>
16
```

11. WebView 추가 및 속성 지정



Web View 구현 (9)

❖ activity_main.xml 저장





Web View 구현 (10)

MainActivity.java

```
MainActivity.java x
1  package com.inhatc.lee_won_joo.android_webview;
2
3  import android.support.v7.app.AppCompatActivity;
4  import android.os.Bundle;
5  import android.webkit.WebView;
6
7  public class MainActivity extends AppCompatActivity {
8
9      private WebView objWebView;    //WebView object
10
11      @Override
12      protected void onCreate(Bundle savedInstanceState) {
13          super.onCreate(savedInstanceState);
14          setContentView(R.layout.activity_main);
15
16          objWebView = (WebView) findViewById(R.id.webView1);
17          objWebView.getSettings().setJavaScriptEnabled(true);
18          objWebView.loadUrl("http://www.google.com");
19      }
20  }
21
```



Web View 구현 (11)

❖ Android 프로젝트 실행

The screenshot shows the Android Studio interface with the 'Run' menu open. A yellow box labeled '14. Click' points to the 'Run' button in the menu. The 'Select Deployment Target' dialog is also open, showing 'Connected Devices' and 'Available Virtual Devices'. A yellow box labeled '15. Click' points to the 'MyAndroid_Nexus One API 25' device. Another yellow box labeled '16. Click' points to the 'OK' button in the dialog.

14. Click

15. Click

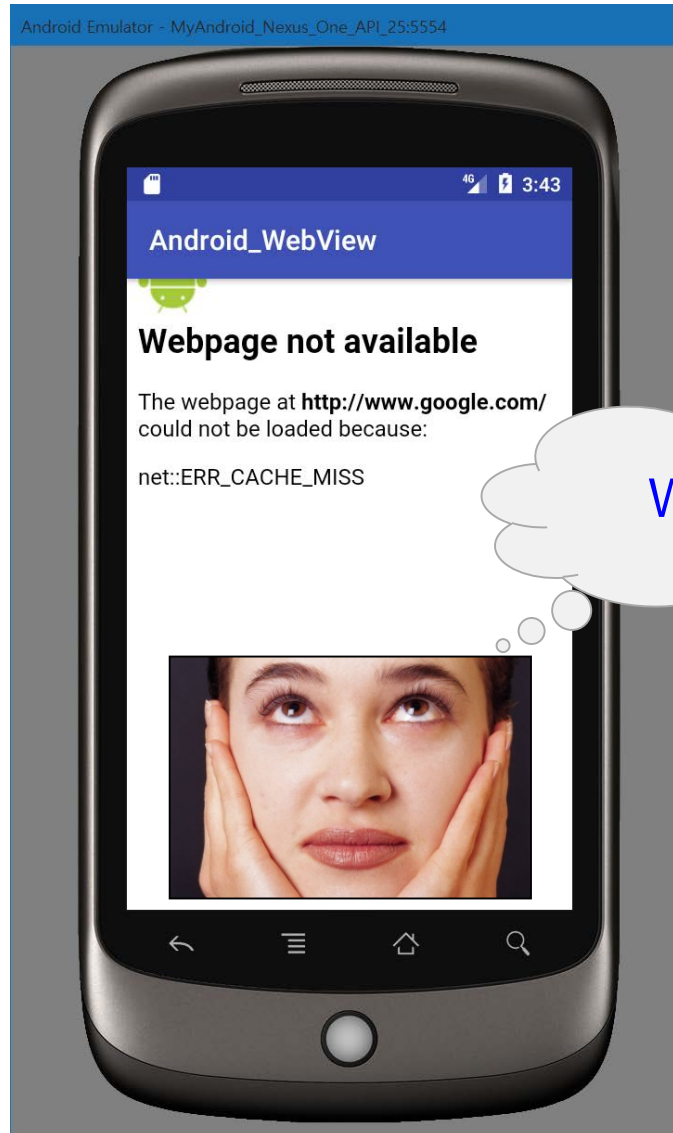
16. Click



Web View 구현 (12)

❖ 실행 결과

◆ Error





Web View 구현 (13)

❖ AndroidManifest.xml 수정

17. XML code 확인

```
1  <?xml version="1.0" encoding="utf-8"?>
2  <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3          package="com.inhatc.lee_won_joo.android_webview">
4
5      <uses-permission android:name="android.permission.INTERNET" />
6
7      <application
8          android:allowBackup="true"
9          android:icon="@mipmap/ic_launcher"
10         android:label="Android_WebView"
11         android:roundIcon="@mipmap/ic_launcher_round"
12         android:supportsRtl="true"
13         android:theme="@style/AppTheme">
14         <activity android:name=".MainActivity">
15             <intent-filter>
16                 <action android:name="android.intent.action.MAIN" />
17
18                 <category android:name="android.intent.category.LAUNCHER" />
19             </intent-filter>
20         </activity>
21     </application>
22 </manifest>
```




Web View 구현 (14)

■ AndroidManifest.xml

❖ <uses-permission> Tag

◆ 애플리케이션이 device data에 접근 허가를 얻기 위한 tag

❖ Format

◆ `<uses-permission android:name="android.permission.INTERNET" />`

Field		설명
android.permission.	INTERNET	인터넷 접속
	RECEIVE_SMS	SMS 메시지
	ACCESS_COARSE_LOCATION	위치정보(Cell-ID, WiFi)
	ACCESS_FINE_LOCATION	위치정보(GPS)





Web View 구현 (15)

❖ Android 프로젝트 실행

The screenshot shows the Android Studio interface with the 'Run' menu open. A yellow box labeled '18. Click' points to the 'Run' button in the menu. The 'Select Deployment Target' dialog is also open, showing 'Connected Devices' and 'Available Virtual Devices'. A yellow box labeled '19. Click' points to the 'MyAndroid_Nexus One API 25' device. Another yellow box labeled '20. Click' points to the 'OK' button in the dialog.

18. Click

19. Click

20. Click



Web View 구현 (16)

❖ 실행 결과





실습 1 : Web View 구현

■ Android_WebView (실습 시간 : 30분)

- ❖ MainActivity.java 파일을 프로그래밍하여 아래 그림과 같이 forward / backward 기능을 구현하시오.





실습 1 : Web View 구현 (1)

❖ Android_WebViewClient 클래스 추가

```
MainActivity.java ×
1  package com.inhatc.lee_won_joo.android_webview;
2
3  import android.support.v7.app.AppCompatActivity;
4  import android.os.Bundle;
5  import android.view.KeyEvent;
6  import android.webkit.WebView;
7  import android.webkit.WebViewClient;
8
9  public class MainActivity extends AppCompatActivity {
10
11      private WebView objWebView;    //WebView object
12
13      @Override
14      protected void onCreate(Bundle savedInstanceState) {
15          super.onCreate(savedInstanceState);
16          setContentView(R.layout.activity_main);
17
18          objWebView = (WebView) findViewById(R.id.webView1);
19          objWebView.setWebViewClient(new Android_WebViewClient()); //Modify code
20          objWebView.getSettings().setJavaScriptEnabled(true);
21          objWebView.loadUrl("http://www.google.com");
22      }
23
```

1. Coding



실습 1 : Web View 구현 (2)

❖ Android_WebViewClient 클래스

```
MainActivity.java x
23
24 private class Android_WebViewClient extends WebViewClient {
25     @Override
26     public boolean shouldOverrideUrlLoading(WebView view, String url){
27         view.loadUrl(url);
28         return true;
29     }
30     @Override
31     public boolean shouldOverrideKeyEvent (WebView view, KeyEvent event) {
32         int keyCode = event.getKeyCode();
33         if ((keyCode == KeyEvent.KEYCODE_DPAD_LEFT) && objWebView.canGoBack()) {
34             objWebView.goBack();
35             return true;
36         }
37         else if ((keyCode == KeyEvent.KEYCODE_DPAD_RIGHT) && objWebView.canGoForward()) {
38             objWebView.goForward();
39             return true;
40         }
41         return false;
42     }
43 }
44 }
45
```



실습 1 : Web View 구현 (3)

❖ Android 프로젝트 실행

3. Click

4. Click

5. Click



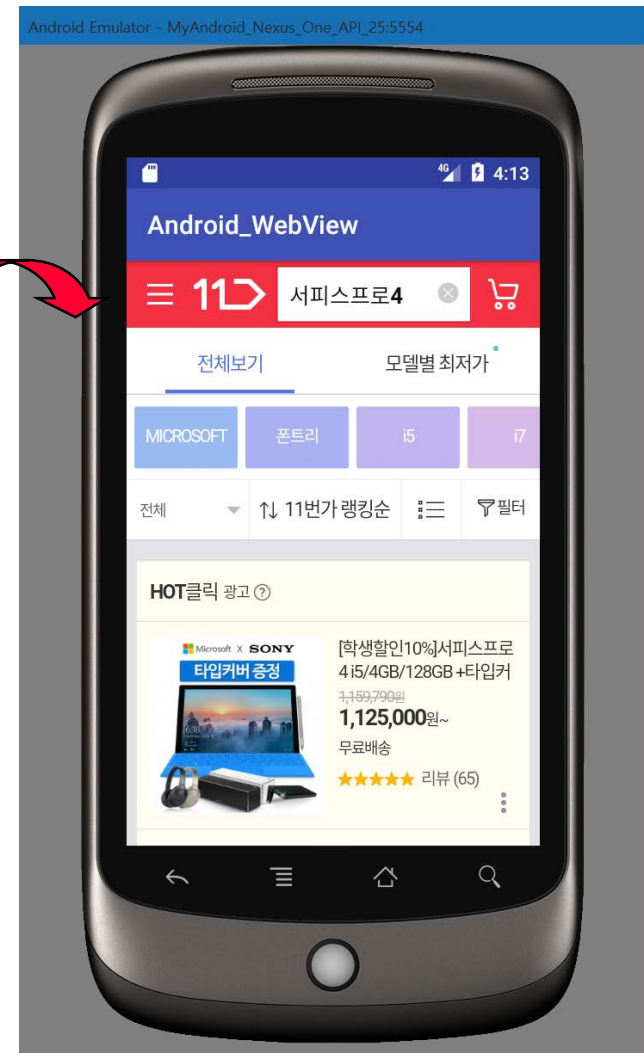
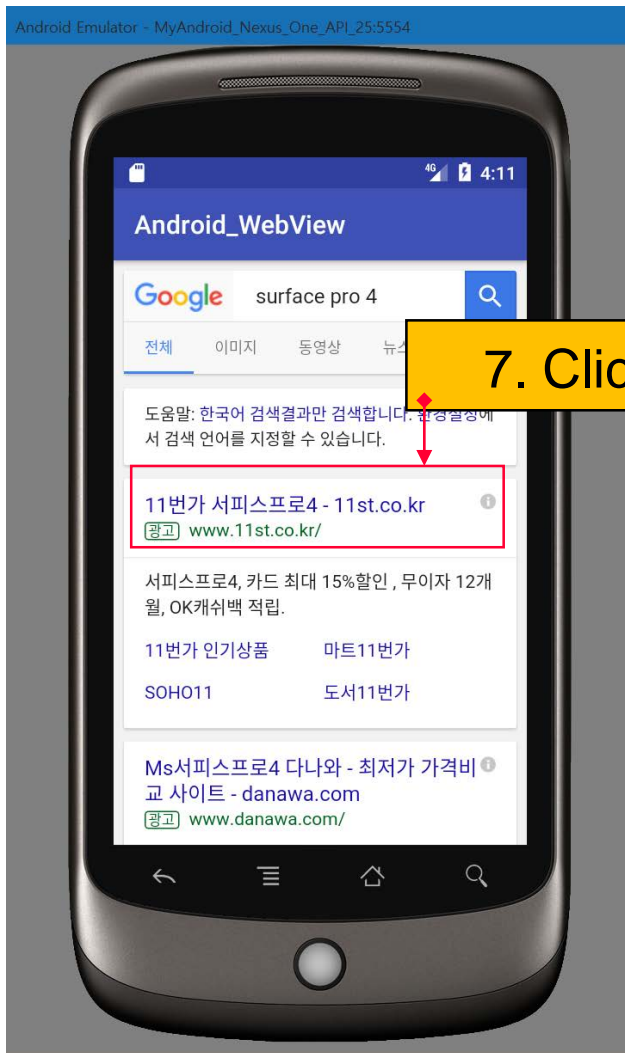
실습 1 : Web View 구현 (4)

❖ 실행 결과



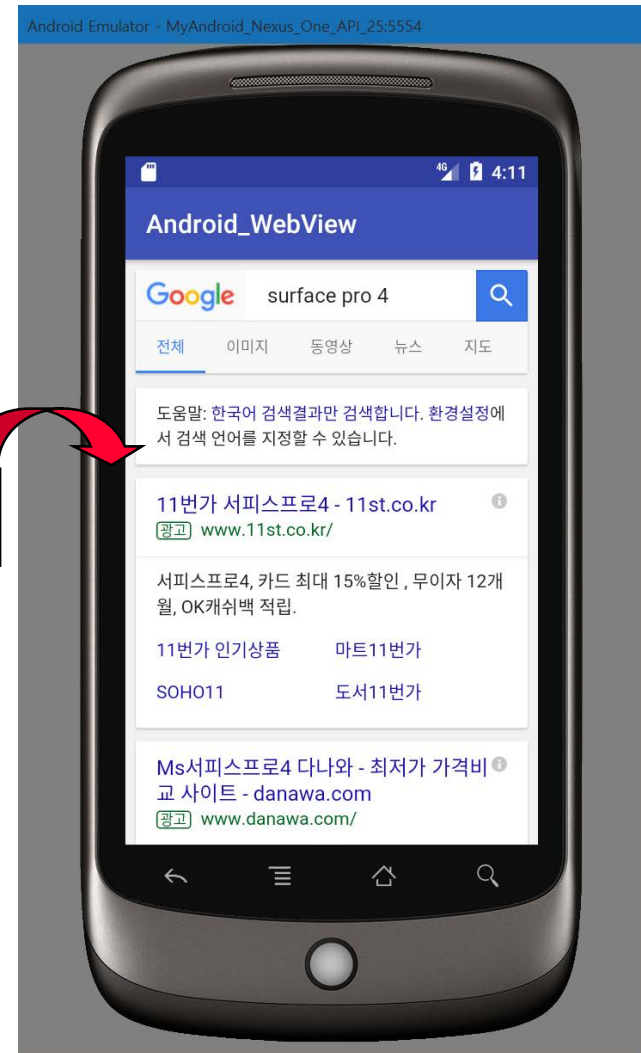
실습 1 : Web View 구현 (5)

❖ Forward



실습 1 : Web View 구현 (6)

❖ Backward



8. [<] Button Click



학습 요약

■ Web View 구현



open handset alliance