**LinearLayout – orientation (슬라이드 5-6)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Button 1" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Button 2" />

<Button

android:id="@+id/button3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Button 3" />

</LinearLayout>

**LinearLayout – layout\_weight(슬라이드 7-8)**

**======================= activity\_main.xml** **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<Button

android:id="@+id/button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="Button 1" />

<Button

android:id="@+id/button2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="Button 2" />

<Button

android:id="@+id/button3"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="2"

android:text="Button 3" />

</LinearLayout>

**LinearLayout – layout\_weight(슬라이드 10)**

**======================= activity\_main.xml** **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity" >

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="@android:color/holo\_blue\_bright"

android:orientation="horizontal">

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="@android:color/holo\_orange\_light"

android:orientation="horizontal">

</LinearLayout>

</LinearLayout>

**LinearLayout – layout\_weight(슬라이드 11)**

**======================= activity\_main.xml** **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity" >

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:orientation="horizontal">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#FFFF00"

android:text="Text 1"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FF00"

android:text="Text 2"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FFFF"

android:text="Text 3"

android:textSize="24sp"

android:textStyle="bold" />

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:orientation="horizontal">

<TextView

android:id="@+id/textView4"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#FFFF00"

android:text="Text 4"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView5"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FF00"

android:text="Text 5"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView6"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FFFF"

android:text="Text 6"

android:textSize="24sp"

android:textStyle="bold" />

</LinearLayout>

</LinearLayout>

**LinearLayout – layout\_weight(슬라이드 12)**

**======================= activity\_main.xml** **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity" >

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:orientation="horizontal">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#FFFF00"

android:text="Text 1"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FF00"

android:text="Text 2"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="match\_parent"

android:layout\_weight="2"

android:background="#00FFFF"

android:text="Text 3"

android:textSize="24sp"

android:textStyle="bold" />

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:orientation="horizontal">

<TextView

android:id="@+id/textView4"

android:layout\_width="0dp"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#FFFF00"

android:text="Text 4"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView5"

android:layout\_width="0dp"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:background="#00FF00"

android:text="Text 5"

android:textSize="24sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textView6"

android:layout\_width="0dp"

android:layout\_height="match\_parent"

android:layout\_weight="2"

android:background="#00FFFF"

android:text="Text 6"

android:textSize="24sp"

android:textStyle="bold" />

</LinearLayout>

</LinearLayout>

**LinearLayout – layout\_gravity 와 gravity(슬라이드 13)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:orientation="vertical"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<Button

android:id="@+id/button1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="left"

android:text="Button 1" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:text="Button 2" />

<Button

android:id="@+id/button3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="right"

android:text="Button 3" />

</LinearLayout>

**LinearLayout – layout\_gravity 와 gravity(슬라이드 14)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<Button

android:id="@+id/button"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:gravity="top|left"

android:text="Button 1"

android:textColor="@color/black"/>

<Button

android:id="@+id/button2"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="Button 2" />

<Button

android:id="@+id/button3"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_weight="2"

android:gravity="right|bottom"

android:text="Button 3"

android:textColor="@color/black"/>

</LinearLayout>

**LinearLayout – layout\_margin과 padding(슬라이드 16-17)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:background="@android:color/holo\_red\_light"

android:orientation="horizontal">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="2dp"

android:padding="2dp"

android:text="Padding=2, Margin=2"/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:background="@android:color/holo\_green\_light"

android:orientation="horizontal">

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="16dp"

android:padding="16dp"

android:text="Padding=16, Margin=16" />

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:background="@android:color/holo\_blue\_bright"

android:orientation="horizontal">

<Button

android:id="@+id/button3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

android:padding="32dp"

android:text="Padding=32, Margin=32" />

</LinearLayout>

</LinearLayout>

**LinearLayout – baselineAligned(18-19)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:orientation="horizontal"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="The"

android:textColor="#ff0000"

android:textSize="20dp" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="World of"

android:textColor="#00ff00"

android:textSize="30sp" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Android"

android:textColor="#0000ff"

android:textSize="40sp" />

</LinearLayout>

**RelativeLayout(슬라이드 23-26)**

**======================= activity\_main.xml**  **===========================**

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="horizontal"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginStart="10dp"

android:layout\_marginTop="10dp"

android:layout\_marginEnd="10dp"

android:text="주소를 입력하세요" />

<EditText

android:id="@+id/addressEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/textView"

android:layout\_marginStart="10dp"

android:layout\_marginTop="20dp"

android:layout\_marginEnd="10dp"

android:ems="10"

android:inputType="textPostalAddress" />

<Button

android:id="@+id/cancelButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@id/addressEditText"

android:layout\_alignParentEnd="true"

android:layout\_marginTop="10dp"

android:layout\_marginRight="10dp"

android:text="취소" />

<Button

android:id="@+id/confirmButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@+id/addressEditText"

android:layout\_marginTop="10dp"

android:layout\_marginEnd="10dp"

android:layout\_toStartOf="@+id/cancelButton"

android:text="선택" />

</RelativeLayout>

**TableLayout(슬라이드 29)**

**======================= activity\_**main.xml **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_margin="5dp"

android:orientation="vertical"

tools:context=".MainActivity">

<TableLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="주소" />

<EditText

android:id="@+id/editTextTextPostalAddress"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="textPostalAddress"

android:text="인천시 연수구 송도동" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="이름" />

<EditText

android:id="@+id/editTextTextPersonName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="textPersonName"

android:text="인천대학교" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginRight="10dp"

android:text="저장" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="취소" />

</TableRow>

</TableLayout>

</LinearLayout>

**TableLayout 수정(슬라이드 30-31)**

**======================= activity\_**main.xml **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_margin="5dp"

android:orientation="vertical"

tools:context=".MainActivity">

<TableLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:stretchColumns="1,2,3">

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="주소" />

<EditText

android:id="@+id/editTextTextPostalAddress"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_span="3"

android:ems="10"

android:inputType="textPostalAddress"

android:text="인천시 연수구 송도동" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="이름" />

<EditText

android:id="@+id/editTextTextPersonName"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_span="3"

android:ems="10"

android:inputType="textPersonName"

android:text="인천대학교" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_column="2"

android:layout\_marginRight="10dp"

android:text="저장" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="취소" />

</TableRow>

</TableLayout>

</LinearLayout>

**FrameLayout(슬라이드 37-40)**

**======================= activity\_**main.xml **===========================**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity" >

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:onClick="onButtonClicked"

android:text="이미지 바꾸기" />

<FrameLayout

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<ImageView

android:id="@+id/imageView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:adjustViewBounds="true"

android:visibility="visible"

app:srcCompat="@drawable/image01" />

<ImageView

android:id="@+id/imageView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:adjustViewBounds="true"

android:visibility="invisible"

app:srcCompat="@drawable/image02" />

<ImageView

android:id="@+id/imageView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:adjustViewBounds="true"

android:visibility="invisible"

app:srcCompat="@drawable/image03" />

</FrameLayout>

</LinearLayout>

**======================= MainActivity.kt** **===========================**

package com.example.layoutexample

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.view.View

import android.widget.ImageView

class MainActivity : AppCompatActivity() {

private var cnt = 0

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

}

fun onButtonClicked(view: View) {

var imageView:ImageView = findViewById(R.id.imageView)

var imageView2:ImageView = findViewById(R.id.imageView2)

var imageView3:ImageView = findViewById(R.id.imageView3)

cnt += 1

imageView.visibility = View.INVISIBLE

imageView2.visibility = View.INVISIBLE

imageView3.visibility = View.INVISIBLE

when (cnt % 3) {

0 -> imageView.visibility = View.VISIBLE

1 -> imageView2.visibility = View.VISIBLE

2 -> imageView3.visibility = View.VISIBLE

}

}

}

**FrameLayout(슬라이드 41)**

**======================= MainActivity.kt** **===========================**

package com.example.framelayoutexample

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.view.View

import android.widget.ImageView

class MainActivity : AppCompatActivity() {

private var cnt = 0

private lateinit var imageView: ImageView

private lateinit var imageView2: ImageView

private lateinit var imageView3: ImageView

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

imageView = findViewById(R.id.imageView)

imageView2 = findViewById(R.id.imageView2)

imageView3 = findViewById(R.id.imageView3)

}

fun onButtonClicked(view: View) {

cnt += 1

imageView.visibility = View.INVISIBLE

imageView2.visibility = View.INVISIBLE

imageView3.visibility = View.INVISIBLE

when (cnt % 3) {

0 -> imageView.visibility = View.VISIBLE

1 -> imageView2.visibility = View.VISIBLE

2 -> imageView3.visibility = View.VISIBLE

}

}

}

**FrameLayout(슬라이드 42)**

**======================= MainActivity.kt** **===========================**

package edu.ourincheon.layoutexample

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.view.View

import android.widget.ImageView

class MainActivity : AppCompatActivity() {

private var toggleImage = false

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

}

fun onButtonClicked(view: View) {

var imageView:ImageView = findViewById(R.id.imageView)

var imageView2:ImageView = findViewById(R.id.imageView2)

toggleImage = !toggleImage

if (toggleImage) {

imageView.visibility = View.VISIBLE

imageView2.visibility = View.INVISIBLE

} else {

imageView.visibility = View.INVISIBLE

imageView2.visibility = View.VISIBLE

}

}

}

**■ UI를 구현하는 3가지 코딩 스타일 - 첫 번째 방법: 레이아웃과 코드를 분리**

======================= activity\_main.xml ================================

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout

xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="안녕, 안드로이드 13"

android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="64dp"

android:text="Button"

android:textSize="20sp"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView" />

</androidx.constraintlayout.widget.ConstraintLayout>

======================== MainActivity.kt =================================

package com.example.codingstyleexample

import android.os.Bundle

import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

}

}

**■ UI를 구현하는 3가지 코딩 스타일 - 두 번째 방법: 코드에서 UI 구현**

======================= activity\_main.xml ================================

첫 번째 방법의 레이아웃 그대로 사용(실제 사용하지 않음)

======================= id.xml ================================

<?xml version="1.0" encoding="utf-8"?>

<resources>

<item name="myButton" type="id" />

<item name="myText" type="id" />

</resources>

======================== MainActivity.kt =================================

package com.example.codingstyleexample

import android.os.Bundle

import android.widget.Button

import android.widget.TextView

import androidx.appcompat.app.AppCompatActivity

import androidx.constraintlayout.widget.ConstraintLayout

import androidx.constraintlayout.widget.ConstraintSet

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

val myText = TextView(this)

myText.text = "안녕, 안드로이드 13"

myText.textSize = 24f

myText.id = R.id.myText

val myButton = Button(this)

myButton.text = "Button"

myButton.textSize = 20f

myButton.isAllCaps = false

myButton.id = R.id.myButton

val myLayout = ConstraintLayout(this)

myLayout.addView(myText)

myLayout.addView(myButton)

setContentView(myLayout)

val set = ConstraintSet()

set.constrainHeight(myButton.id, ConstraintSet.WRAP\_CONTENT)

set.constrainWidth(myButton.id, ConstraintSet.WRAP\_CONTENT)

set.constrainHeight(myText.id, ConstraintSet.WRAP\_CONTENT)

set.constrainWidth(myText.id, ConstraintSet.WRAP\_CONTENT)

set.connect(myText.id, ConstraintSet.START, ConstraintSet.PARENT\_ID, ConstraintSet.START, 0)

set.connect(myText.id, ConstraintSet.END, ConstraintSet.PARENT\_ID, ConstraintSet.END, 0)

set.connect(myText.id, ConstraintSet.TOP, ConstraintSet.PARENT\_ID, ConstraintSet.TOP, 0)

set.connect(myText.id, ConstraintSet.BOTTOM, ConstraintSet.PARENT\_ID, ConstraintSet.BOTTOM, 0)

set.connect(myButton.id, ConstraintSet.START, ConstraintSet.PARENT\_ID, ConstraintSet.START, 0)

set.connect(myButton.id, ConstraintSet.END, ConstraintSet.PARENT\_ID, ConstraintSet.END, 0)

set.connect(myButton.id, ConstraintSet.TOP, myText.id, ConstraintSet.BOTTOM, 64)

set.applyTo(myLayout)

}

}

**■ UI를 구현하는 3가지 코딩 스타일 - 세 번째 방법: XML layout + code = UI**

======================= activity\_main.xml ================================

첫 번째 방법의 레이아웃 그대로 사용

======================== MainActivity.kt =================================

package com.example.codingstyleexample

import android.graphics.Color

import android.graphics.Typeface

import android.os.Bundle

import android.widget.Button

import android.widget.TextView

import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

val myTextView = findViewById<TextView>(R.id.textView)

val myButton = findViewById<Button>(R.id.button)

myTextView.text = "Welcome to Android World!"

myTextView.textSize = 24f

myTextView.setTypeface(null, Typeface.BOLD)

myButton.setBackgroundColor(Color.BLUE)

myButton.text = "Press Me"

myButton.textSize = 20f

myButton.setTypeface(null, Typeface.ITALIC)

}

}