200709 안드로이드

메뉴

옵션메뉴

알맹이 출력부는

```
package com.cookandroid.project7_1;

import android.graphics.Color;
import android.view.ContextMenu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.SubMenu;
import android.widget.Button;
import android.widget.LinearLayout;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{
    LinearLayout base;
    Button btn;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        setTitle("제공자 부가기");
        base = (LinearLayout)findViewById(R.id.baseLayout);
        btn = (Button)findViewById(R.id.btn);

    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu)
    {
        super.onCreateOptionsMenu(menu);
        MenuInflater menuInflater = getMenuInflater();
        menuInflater.inflate(R.menu.menu1, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem
item)
    {
        switch (item.getItemId())
        {
            case R.id.itemRed:
                base.setBackgroundColor(Color.RED);
                return true;

            case R.id.itemGreen:
                base.setBackgroundColor(Color.GREEN);
                return true;

            case R.id.itemBlue:
                base.setBackgroundColor(Color.BLUE);
                return true;

            case R.id.subRotate:
                btn.setRotation(45);
                return true;

            case R.id.subSize:
                btn.setScaleX(2);
                return true;

        }

        return false;
    }
```

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.
com/apk/res/android">

    <item
        android:id="@+id/itemRed"
        android:title="레드(빨강)"></item>

    <item
        android:id="@+id/itemGreen"
        android:title="레드(빨강)"></item>

    <item
        android:id="@+id/itemBlue"
        android:title="레드(빨강)"></item>

    <item android:title="버튼 변경 >>" >
        <menu>
            <item
                android:id="@+id/subRotate"
                android:title="버튼 45도 회전"></
item>
            <item
                android:id="@+id/subSize"
                android:title="버튼 2배 확대"></
item>
        </menu>
    </item>
</menu>
```

ex

```
@Override
public boolean onCreateOptionsMenu(Menu menu)
{
    super.onCreateOptionsMenu(menu);

//      그룹 4 아이디 2 순서
//      자바로 직접 조작하는 건 관례지 않음.
    menu.add(4, 2, 0, "레드(빨강)");
    menu.add(0, 2, 0, "레드(빨강)");
    menu.add(0, 3, 0, "레드(빨강)");

    SubMenu sMenu = menu.addSubMenu("버튼 변경 >>");
    sMenu.add(0,4,0,"버튼 45도 회전");
    sMenu.add(0,5,0,"버튼 2배 확대");

    return true;
}
```

자바로 직접 조작하기

editText를 width를 match_parent로 해주고, toMapXY 안 해도 됨

```
package com.cookandroid.project7_2;

import android.service.controls.Control;
import android.view.Menu;
import android.view.ContextMenu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.widget.*;
import androidx.annotation.DrawableRes;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{
    EditText    editText;
    ImageView imgView;
    String angle;

//  이거 해보길 부갈지ㅋ
//  이거는 그냥 잘 쓰라는거 체크되어 있는데 이건 이미지가 안 나오나? 해놓 셀렉트가 아니라 체크된 상태 따라서 나중엔 학고 놓으라
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstance);
        setContentView(R.layout.activity_main);

        setTitle("제주도 동물");

        editText= (EditText)findViewById(R.id.editText);
        imgView= (ImageView)findViewById(R.id.imgView);

    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu)
    {
        super.onCreateOptionsMenu(menu);
        menuInflater menuInflater = getMenuInflater();
        menuInflater.inflate(R.menu.menu, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item)
    {

        switch (item.getItemId())
        {
            case R.id.rotatePic:
                angle= editText.getText().toString();
                if(angle!=null && !angle.equals(""))
                {
                    imgView.setRotation(Integer.parseInt(angle));
                }
                else
                {
                    Toast.makeText(getApplicationContext(), "각도를 입력하주세요",Toast.LENGTH_SHORT).show();
                }
                return true;

            case R.id.pic1:
                item.setChecked(true);
                imgView.setImageResource(R.drawable.jeju8);
                return true;

            case R.id.pic2:
                item.setChecked(true);
                imgView.setImageResource(R.drawable.jeju12);
                return true;

            case R.id.pic3:
                item.setChecked(true);
                imgView.setImageResource(R.drawable.jeju14);
                return true;
        }

//      if (item.isChecked())
//      {
//          item.setChecked(true);
//
//          switch (item.getItemId())
//          {
//              case R.id.pic1:
//                  imgView.setImageResource(R.drawable.jeju8);
//                  return true;
//
//              case R.id.pic2:
//                  imgView.setImageResource(R.drawable.jeju12);
//                  return true;
//
//              case R.id.pic3:
//                  imgView.setImageResource(R.drawable.jeju14);
//                  return true;
//
//              default:
//                  return false;
//          }
//      }
//      else
//      {
//          if(item.getItemId()==R.id.rotatePic)
//          {
//              angle= editText.getText().toString();
//              if(angle!=null && !angle.equals(""))
//              {
//                  imgView.setRotation(Integer.parseInt(angle));
//              }
//              else
//              {
//                  Toast.makeText(getApplicationContext(), "각도를 입력하주세요",Toast.LENGTH_SHORT).
show();
//              }
//              return true;
//          }
//          else
//          {
//              return false;
//          }
//      }

        return false;
    }

}
```

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.
com/apk/res/android">

    <item
        android:id="@+id/rotateRotate"
        android:title="그림 회전">></item>

    <group
        android:id="@+id/group"
        android:checkableBehavior="single">

    <item
        android:id="@+id/pic1"
        android:title="한라산"
        android:checked="true"></item>

    <item
        android:id="@+id/pic2"
        android:title="주지도"></item>

    <item
        android:id="@+id/pic3"
        android:title="협재"></item>

    </group>

</menu>
```

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/base"
    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="그림 입력"
    android:layout_alignParentLeft="@+id/editText"/>

<EditText
    android:id="@+id/editText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_toRightOf="@+id/textView"
    android:layout_alignParentRight="true"></EditText>

<ImageView
    android:id="@+id/imgView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerInParent="true"></ImageView>

</RelativeLayout>
```

ex2

컨텍스트메뉴

팝업지원

```
package com.cookandroid.project7_2;

import android.graphics.Color;
import android.view.ContextMenu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.LinearLayout;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{

    LinearLayout base;
    Button btn1, btn2;
    int rotation;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstance);
        setContentView(R.layout.activity_main);

        base= (LinearLayout)findViewById(R.id.baseLayout);

        btn1 = (Button)findViewById(R.id.button1);
        registerForContextMenu(btn1); //이 작업이 꼭 필요함

        btn2 = (Button)findViewById(R.id.button2);
        registerForContextMenu(btn2);
    }

    @Override
    public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu
.ContextMenuInfo menuInfo)
    {
        MenuInflater menuInflater = getMenuInflater();
        if(v== btn1)
        {
            menu.setHeaderTitle("배경색 변경");
            menu.setHeaderIcon(R.drawable.icon);
            menuInflater.inflate(R.menu.menu4, menu);
        }
        if(v==btn2)
        {
            menuInflater.inflate(R.menu.menu2, menu);
        }
    }

    @Override
    public boolean onContextItemSelected(@NonNull MenuItem item)
    {
        switch (item.getItemId())
        {
            case R.id.itemRed:
                base.setBackgroundColor(Color.RED);
                return true;

            case R.id.itemGreen:
                base.setBackgroundColor(Color.GREEN);
                return true;

            case R.id.itemBlue:
                base.setBackgroundColor(Color.BLUE);
                return true;

            case R.id.subRotate:
                rotation += 45;
                btn1.setRotation(rotation);
                return true;

            case R.id.subSize:
                btn1.setScaleX(2);
                btn2.setScaleX(2);
                return true;

        }

        return false;
    }
```

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.
com/apk/res/android">

    <item
        android:id="@+id/itemRed"
        android:title="레드(빨강)"></item>

    <item
        android:id="@+id/itemGreen"
        android:title="레드(빨강)"></item>

    <item
        android:id="@+id/itemBlue"
        android:title="레드(빨강)"></item>

</menu>
```

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.
com/apk/res/android">

    <item
        android:id="@+id/subRotate"
        android:title="버튼 45도 회전"></item>

    <item
        android:id="@+id/subSize"
        android:title="버튼 2배 확대"></item>

</menu>
```

</menu>

```
package com.cookandroid.project7_2_2;

import android.graphics.Color;
import android.view.ContextMenu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.LinearLayout;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{

    LinearLayout base;
    Button btn1, btn2;
    int angle;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstance);
        setContentView(R.layout.activity_main);

        base= (LinearLayout)findViewById(R.id.baseLayout);

        btn1= (Button)findViewById(R.id.button1);
        registerForContextMenu(btn1);
        btn2= (Button)findViewById(R.id.button2);
        registerForContextMenu(btn2);
    }

    @Override
    public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu
.ContextMenuInfo menuInfo)
    {
        super.onCreateContextMenu(menu, v, menuInfo);

        if(v== btn1)
        {
            menu.add(0,1,0,"레드(빨강)");
            menu.add(0,2,0,"레드(빨강)");
            menu.add(0,3,0,"레드(빨강)");
        }
        if(v==btn2)
        {
            menu.add(0,4,0,"버튼 회전");
            menu.add(0,5,0,"버튼 크기");
        }

    }

    @Override
    public boolean onContextItemSelected(@NonNull MenuItem item)
    {

        switch (item.getItemId())
        {
            case 1:
                base.setBackgroundColor(Color.RED);
                return true;

            case 2:
                base.setBackgroundColor(Color.GREEN);
                return true;

            case 3:
                base.setBackgroundColor(Color.BLUE);
                return true;

            case 4:
                angle += 45;
                btn1.setRotation(angle);
                return true;

            case 5:
                btn2.setScaleX(2);
                return true;
        }

        return false;
    }
    }
}
```

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.
com/apk/res/android"
    android:id="@+id/baseLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

<Button
    android:id="@+id/btn1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="레드(빨강)" />

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="버튼 변경" />

</LinearLayout>
```

ex

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.
com/apk/res/android"
    android:id="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

<TextView
    android:id="@+id/textText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="레드(빨강)" />

</LinearLayout>
```

registerForContextMenu(); 해당 작업 필요 중요

메뉴를 만들 수 있도록 하기위해선 registerforMenu ex. 버튼

Menuinflate 없이 ex에로 추가로 넣을게 아니군ㅋ

XML로 이용한 옵션 메뉴

1. res/ 디 menu폴더 생성해서 ex로 만들어줌

2. 자바 코딩

onCreateOptionMenu() 오버라이딩 → 메뉴파일 등록

onOptionsItemSelected() 오버라이딩 → 메뉴 셋

컨텍스트의 경우 다른 2 사이에 → 자식의 아이템에 대한 이벤트 처리

→ 무엇이 같은 것도 모고 일을 코딩

onCreate() 안에 registerForContextMenu()등록 → 어디 자식인 버튼에 모일을 일 등

자바코딩 메서드만 다름

컨텍스트에 맞게 메뉴 구성

토스트

ex

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.
com/apk/res/android"
    android:id="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

<Button
    android:id="@+id/btn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Wordlf" />

</LinearLayout>
```

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.
com/apk/res/android"
    android:id="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

<TextView
    android:id="@+id/toastText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Wordlf" />

</LinearLayout>
```

토스트용 레이아웃

```
package com.cookandroid.chap07toast;

import android.text.Layout;
import android.view.View;
import android.widget.Button;
import android.widget.LinearLayout;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity
{
    Button btn;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstance);
        setContentView(R.layout.activity_main);

        setTitle("토스트 연습");

        btn = (Button)findViewById(R.id.btn);

        btn.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View view)
            {

//          Toast msg = Toast.makeText(getApplicationContext(), "
토스트 연습입니다", Toast.LENGTH_SHORT);

            Toast msg = new Toast(getApplicationContext());

            Display display = ((WindowManager)getSystemService(
WINDOW_SERVICE).getDefaultDisplay();

            int xOffset = (int)(Math.random() * display.getWidth());
            int yOffset = (int)(Math.random() * display.getHeight());

            msg.setGravity(Gravity.TOP | Gravity.LEFT , xOffset, yOffset);

            View toastView = (View)View.inflate(getApplicationContext(), R.
layout.toast1, null);
            msg.setView(toastView);

            msg.show();
            }
        });

    }
}
```

대화상자

dialog

사용자에게 중요한 사항 알려준 후 선택하도록

알맹할 수 있는 것이 많음 → 용도에 따라

XMind | 평가판 모드