

# Java

## Lab4

```
public class MainActivity2 extends AppCompatActivity {
    //宣告元件
    private Button send_btn;
    private EditText set_drink;
    private RadioGroup rg1, rg2;

    private String sugar = "無糖";
    private String ice_opt = "去冰";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState); 初始化 Activity
        setContentView(R.layout.activity_main2); 連接 main2.xml 畫面
        //連結畫面元件

        rg1 = findViewById(R.id.radioGroup); 連接 RadioGroup 畫面元件
        rg1.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(RadioGroup radioGroup, int i) {
                switch(i){
                    case R.id.radioButton1:
                        sugar = "無糖"; 按下 radioButton1, 紀錄無糖字串
                        break;
                    case R.id.radioButton2:
                        sugar = "少糖"; 按下 radioButton2, 紀錄少糖字串
                        break;
                    case R.id.radioButton3:
                        sugar = "半糖"; 按下 radioButton3, 紀錄半糖字串
                        break;
                    case R.id.radioButton4:
                        sugar = "全糖"; 按下 radioButton4, 紀錄全糖字串
                        break;
                }
            }
        });
    }
};
```

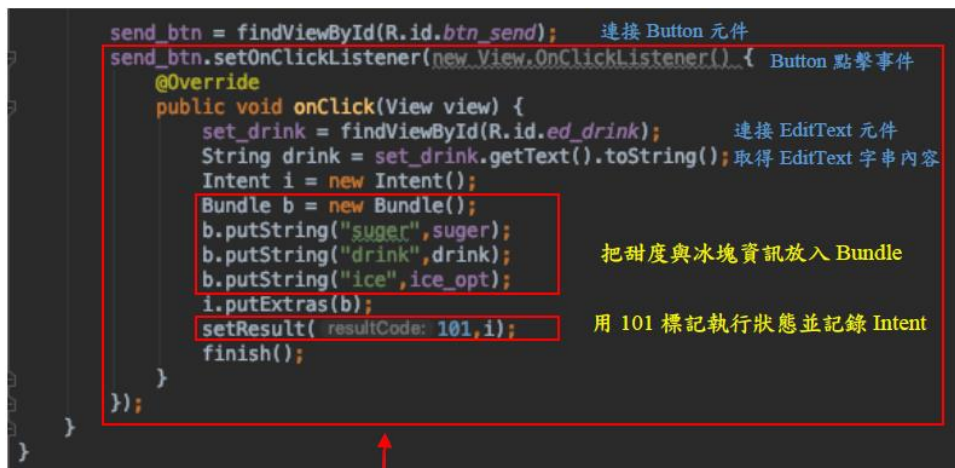
甜度

- ☐ 無糖
- ☒ 少糖
- ☐ 半糖
- ☐ 全糖

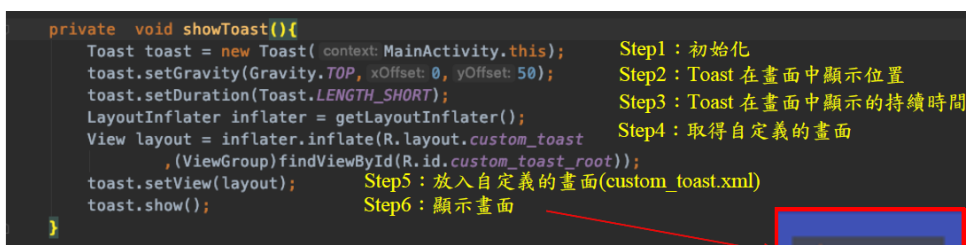
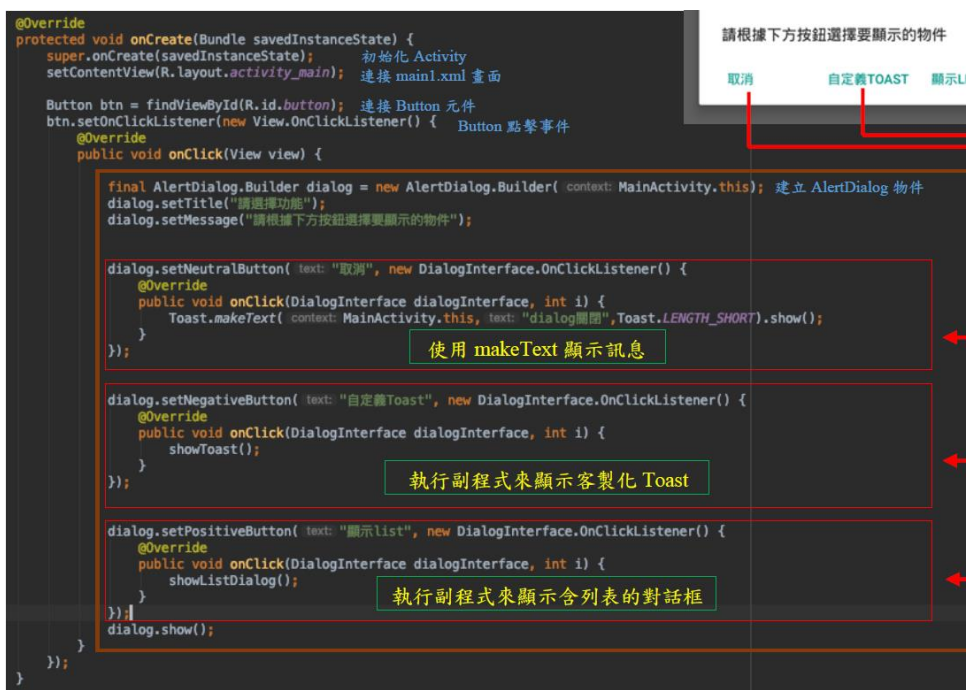
```
rg2 = findViewById(R.id.radioGroup2);
rg2.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
    @Override
    public void onCheckedChanged(RadioGroup radioGroup, int i) {
        switch (i){
            case R.id.radioButton5:
                ice_opt = "微冰"; 按下 radioButton5, 紀錄微冰字串
                break;
            case R.id.radioButton6:
                ice_opt = "少冰"; 按下 radioButton6, 紀錄少冰字串
                break;
            case R.id.radioButton7:
                ice_opt = "正常冰"; 按下 radioButton7, 紀錄正常冰字串
                break;
        }
    }
});
```

冰塊

- ☐ 微冰
- ☐ 少冰
- ☒ 正常冰



## Lab5



```

private void showListDialog(){
    final String[] list = {"message1","message2","message3","message4","message5"};
    AlertDialog.Builder dialog_list = new AlertDialog.Builder( context: MainActivity.this);
    dialog_list.setTitle("使用LIST呈現");
    dialog_list.setItems(list, new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialogInterface, int i) {
            Toast.makeText( context: MainActivity.this
                , text: "你選得是"+list[i],Toast.LENGTH_SHORT).show();
        }
    });
    dialog_list.show();
}

```

建立要顯示在的列表上的字串

建立 AlertDialog 物件

依照被點擊的項目用 Toast 顯示字串

Kolin

Lab4

```

package com.example.myapplication

import android.app.Activity
import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        findViewById<Button>(R.id.btn_choice).setOnClickListener {
            val intent = Intent( packageContext: this,MainActivity2::class.java)
            startActivityForResult(intent, requestCode: 1)
        }

        override fun onActivityResult(requestCode: Int,resultCode: Int,data: Intent?)
        {
            super.onActivityResult(requestCode,resultCode,data)
            data?.extras?.let {
                if(requestCode == 1 && resultCode == Activity.RESULT_OK){
                    findViewById<TextView>(R.id.tv_meal).text =
                        "飲料 : ${it.getString( key: "drink")}\n\n" +
                        "甜度 : ${it.getString( key: "sugar")}\n\n" +
                        "冰塊 : ${it.getString( key: "ice")}"
                }
            }
        }
    }
}

```

```

package com.example.myapplication

import ...

class MainActivity2 : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main2)

        val btn_send = findViewById<Button>(R.id.btn_send)
        val ed_drink = findViewById<EditText>(R.id.drink)
        val radioGroup = findViewById<RadioGroup>(R.id.radioGroup)
        val radioGroup1 = findViewById<RadioGroup>(R.id.radioGroup1)

        btn_send.setOnClickListener { it View!
            if(ed_drink.length() < 1) Toast.makeText(context: this, text: "請輸入飲料名稱", Toast.LENGTH_SHORT).show()
            else {
                val b = Bundle()
                b.putString("drink", ed_drink.text.toString())
                b.putString("sugar", radioGroup.findViewById<RadioButton>(radioGroup.checkedRadioButtonId).text.toString())
                b.putString("ice", radioGroup1.findViewById<RadioButton>(radioGroup1.checkedRadioButtonId).text.toString())
                setResult(RESULT_OK, Intent().putExtras(b))
                finish()
            }
        }
    }
}

```

## Lab5

### main

```

package com.example.myapplication

import ...

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        Log.e(tag: "MainActivity", msg: "onCreate")

        val adapter = ViewPagerAdapter(supportFragmentManager)

        findViewById<ViewPager>(R.id.viewPager).adapter = adapter
    }

    override fun onRestart(){
        super.onRestart()
        Log.e(tag: "MainActivity", msg: "onRestart")
    }

    override fun onStart(){
        super.onStart()
        Log.e(tag: "MainActivity", msg: "onStart")
    }

    override fun onResume(){
        super.onResume()
        Log.e(tag: "MainActivity", msg: "onResume")
    }

    override fun onPause(){
        super.onPause()
        Log.e(tag: "MainActivity", msg: "onPause")
    }
}

```

```

    }

    override fun onStop(){
        super.onStop()
        Log.e( tag: "MainActivity", msg: "onStop")
    }

    override fun onDestroy(){
        super.onDestroy()
        Log.e( tag: "MainActivity", msg: "onDestroy")
    }
}

class ViewPagerAdapter(fm: FragmentManager) : FragmentPagerAdapter(fm){
    override fun getItem(position: Int) = when(position) {
        0 -> FirstFragment()
        1 -> SecondFragment()
        else -> ThirdFragment()
    }
    override fun getCount() = 3
}

```

## First

```

package com.example.myapplication
import ...

class FirstFragment : Fragment(){
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        Log.e( tag: "FirstFragment", msg: "onCreate")
    }

    override fun onCreateView(inflater: LayoutInflater, container: ViewGroup?, savedInstanceState: Bundle?): View? {
        Log.e( tag: "FirstFragment", msg: "onCreateView")
        return inflater.inflate(R.layout.fragment_first, container, attachToRoot: false)
    }

    override fun onActivityCreated(savedInstanceState: Bundle?){
        super.onActivityCreated(savedInstanceState)
        Log.e( tag: "FirstFragment", msg: "onActivityCreated")
    }

    override fun onStart(){
        super.onStart()
        Log.e( tag: "FirstFragment", msg: "onStart")
    }

    override fun onResume(){
        super.onResume()
        Log.e( tag: "FirstFragment", msg: "onResume")
    }

    override fun onPause(){
        super.onPause()
        Log.e( tag: "FirstFragment", msg: "onPause")
    }
}

```

```

    override fun onStop(){
        super.onStop()
        Log.e( tag: "FirstFragment", msg: "onStop")
    }

    override fun onDestroyView(){
        super.onDestroyView()
        Log.e( tag: "FirstFragment", msg: "onDestroyView")
    }

    override fun onDestroy(){
        super.onDestroy()
        Log.e( tag: "FirstFragment", msg: "onDestroy")
    }

    override fun onDetach(){
        super.onDetach()
        Log.e( tag: "FirstFragment", msg: "onDetach")
    }
}

```

## Second

```

package com.example.myapplication
import ...

class SecondFragment : Fragment(){
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        Log.e( tag: "SecondFragment", msg: "onCreate")
    }

    override fun onCreateView(inflater: LayoutInflater, container: ViewGroup?, savedInstanceState: Bundle?): View? {
        Log.e( tag: "SecondFragment", msg: "onCreateView")
        return inflater.inflate(R.layout.fragment_second, container, attachToRoot: false)
    }

    override fun onActivityCreated(savedInstanceState: Bundle?){
        super.onActivityCreated(savedInstanceState)
        Log.e( tag: "SecondFragment", msg: "onActivityCreated")
    }

    override fun onStart(){
        super.onStart()
        Log.e( tag: "SecondFragment", msg: "onStart")
    }

    override fun onResume(){
        super.onResume()
        Log.e( tag: "SecondFragment", msg: "onResume")
    }

    override fun onPause(){
        super.onPause()
        Log.e( tag: "SecondFragment", msg: "onPause")
    }
}

```

```

    }
    override fun onStop(){
        super.onStop()
        Log.e( tag: "SecondFragment", msg: "onStop")
    }
    override fun onDestroyView(){
        super.onDestroyView()
        Log.e( tag: "SecondFragment", msg: "onDestroyView")
    }
    override fun onDestroy(){
        super.onDestroy()
        Log.e( tag: "SecondFragment", msg: "onDestroy")
    }
    override fun onDetach(){
        super.onDetach()
        Log.e( tag: "SecondFragment", msg: "onDetach")
    }
}

```

## Third

```

package com.example.myapplication
import ...

class ThirdFragment : Fragment(){
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        Log.e( tag: "ThirdFragment", msg: "onCreate")
    }
    override fun onCreateView(inflater: LayoutInflater, container: ViewGroup?, savedInstanceState: Bundle?): View? {
        Log.e( tag: "ThirdFragment", msg: "onCreateView")
        return inflater.inflate(R.layout.fragment_third, container, attachToRoot: false)
    }
    override fun onActivityCreated(savedInstanceState: Bundle?) {
        super.onActivityCreated(savedInstanceState)
        Log.e( tag: "ThirdFragment", msg: "onActivityCreated")
    }

    override fun onStart(){
        super.onStart()
        Log.e( tag: "ThirdFragment", msg: "onStart")
    }
    override fun onResume(){
        super.onResume()
        Log.e( tag: "ThirdFragment", msg: "onResume")
    }
    override fun onPause(){
        super.onPause()
        Log.e( tag: "ThirdFragment", msg: "onPause")
    }
}

```

```
    override fun onStop(){
        super.onStop()
        Log.e( tag: "ThirdFragment", msg: "onStop")
    }
    override fun onDestroyView(){
        super.onDestroyView()
        Log.e( tag: "ThirdFragment", msg: "onDestroyView")
    }
    override fun onDestroy(){
        super.onDestroy()
        Log.e( tag: "ThirdFragment", msg: "onDestroy")
    }
    override fun onDetach(){
        super.onDetach()
        Log.e( tag: "ThirdFragment", msg: "onDetach")
    }
}
```

Lab6



```

package com.example.myapplication

import ...

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val btn_toast = findViewById<Button>(R.id.btn_toast)
        val btn_custom = findViewById<Button>(R.id.btn_custom )
        val btn_snackbar = findViewById<Button>(R.id.btn_snackbar)
        val btn_dialog1 = findViewById<Button>(R.id.btn_dialog1)
        val btn_dialog2 = findViewById<Button>(R.id.btn_dialog2)
        val btn_dialog3 = findViewById<Button>(R.id.btn_dialog3)
        val item = arrayOf("選項1", "選項2", "選項3", "選項4", "選項5")

        btn_toast.setOnClickListener { it: View!
            showToast( msg: "預設Toast")
        }
        btn_custom.setOnClickListener { it: View!
            val toast = Toast( context: this)
            toast.setGravity(Gravity.TOP, xOffset: 0, yOffset: 50)
            toast.duration = Toast.LENGTH_SHORT
            toast.view = inflater.inflate(R.layout.custom_toast, root: null)
            toast.show()
        }
        btn_snackbar.setOnClickListener { it: View!
            Snackbar.make(it, text: "按鈕式SNACKBAR", Snackbar.LENGTH_SHORT)
                .setAction( text: "按鈕"){ it: View!
                    showToast( msg: "已回應")
                }.show()
        }
    }
}

```

```

btn_dialog1.setOnClickListener { it: View!
    AlertDialog.Builder( context: this)
        .setTitle("按鈕式ALERTDIALOG")
        .setMessage("ALERTDIALOG內容")
        .setNeutralButton( text: "左按鈕"){ dialog, which ->
            showToast( msg: "左按鈕")
        }
        .setNegativeButton( text: "中按鈕"){ dialog, which ->
            showToast( msg: "中按鈕")
        }
        .setPositiveButton( text: "右按鈕"){ dialog, which ->
            showToast( msg: "右按鈕")
        }
        .show()
}

btn_dialog2.setOnClickListener { it: View!
    AlertDialog.Builder( context: this)
        .setTitle("列表式ALERTDIALOG")
        .setItems(item) { dialogInterface,i ->
            showToast( msg: "你選的是${item[i]}")
        }
        .show()
}
}

```

```

btn_dialog3.setOnClickListener { it: View!
    var position = 0
    AlertDialog.Builder( context: this)
        .setTitle("單選式ALERTDIALOG")
        .setSingleChoiceItems(item, checkedItem: 0){ dialogInterface ,i ->
            position = i
        }
        .setPositiveButton( text: "確定"){ dialog , which ->
            showToast( msg: "你選的是${item[position]}")
        }
        .show()
    }
}

private fun showToast(msg: String) =
    Toast.makeText( context: this,msg,Toast.LENGTH_SHORT).show()

```

## 心得

這次是第二次的機會讓我學習到 kolin 的一些基本語法，利用練習前三次的 Lab 將點餐和訊息提醒元件的功能再現，並且比較出 java 和 kolin 的差異在哪，例如:kolin 不須分號、宣告的方式也不

同、使用的語法較高階等等，讓我比較不會搞混而產生語法錯誤的狀況，非常謝謝老師有這麼樣棒的想法讓我們能邊做功課，邊複習上課所學。