MainActivity.kt

package com.example.hw03

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.widget.\*

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

//將變數與 XML 元件綁定

val ed\_name = findViewById<EditText>(R.id.ed\_name)

val tv\_text = findViewById<TextView>(R.id.tv\_text)

val radioGroup = findViewById<RadioGroup>(R.id.radioGroup)

val btn\_scissor = findViewById<RadioButton>(R.id.btn\_scissor)

val btn\_stone = findViewById<RadioButton>(R.id.btn\_stone)

val btn\_paper = findViewById<RadioButton>(R.id.btn\_paper)

val btn\_mora = findViewById<Button>(R.id.btn\_mora)

val tv\_name = findViewById<TextView>(R.id.tv\_name)

val tv\_winner = findViewById<TextView>(R.id.tv\_winner)

val tv\_mmora = findViewById<TextView>(R.id.tv\_mmora)

val tv\_cmora = findViewById<TextView>(R.id.tv\_cmora)

btn\_mora.setOnClickListener {

//判斷 EditText 的字數是否小於一，若成立則無法進行猜拳

if (ed\_name.length() < 1) {

tv\_text.text = "請輸入玩家姓名"

return@setOnClickListener

}

//取出 EditText 文字作為玩家姓名並用變數儲存

val playerName = ed\_name.text

//亂數產生介於 0~1 之間不含 1 的小數，乘 3 變成 0~2 作為電腦的出拳

val comMora = (Math.random() \* 3).toInt()

//將玩家出拳結果對應成字串並用變數儲存

val playerMoraText = when {

btn\_scissor.isChecked -> "剪刀"

btn\_stone.isChecked -> "石頭"

else -> "布"

}

//將電腦出拳結果對應成字串並用變數儲存

val comMoraText = when(comMora) {

0 -> "剪刀"

1 -> "石頭"

else -> "布"

}

//顯示玩家姓名與雙方出拳結果

tv\_name.text = "名字\n$playerName"

tv\_mmora.text = "我方出拳\n$playerMoraText"

tv\_cmora.text = "電腦出拳\n$comMoraText"

//用三個判斷式決定勝負並顯示猜拳結果

when {

btn\_scissor.isChecked && comMora == 2 ||

btn\_stone.isChecked && comMora == 0 ||

btn\_paper.isChecked && comMora == 1 -> {

tv\_winner.text = "勝利者\n$playerName"

tv\_text.text = "恭喜你獲勝了！！！"

}

btn\_scissor.isChecked && comMora == 1 ||

btn\_stone.isChecked && comMora == 2 ||

btn\_paper.isChecked && comMora == 0 -> {

tv\_winner.text = "勝利者\n 電腦"

tv\_text.text = "可惜，電腦獲勝了！"

}

else -> {

tv\_winner.text = "勝利者\n 平手"

tv\_text.text = "平局，請再試一次！"

}

}

}

}

}

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">

<EditText

android:id="@+id/ed\_name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:layout\_marginTop="32dp"

android:ems="10"

android:hint="請輸入玩家姓名"

android:inputType="textPersonName"

app:layout\_constraintStart\_toStartOf="parent"

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

<TextView

android:id="@+id/tv\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="8dp"

android:text="請輸入姓名以開始遊戲"

android:textSize="18sp"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintStart\_toStartOf="@+id/ed\_name"

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

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="16dp"

android:orientation="horizontal"

app:layout\_constraintStart\_toStartOf="@+id/tv\_text"

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

<RadioButton

android:id="@+id/btn\_scissor"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:checked="true"

android:text="剪刀" />

<RadioButton

android:id="@+id/btn\_stone"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="石頭" />

<RadioButton

android:id="@+id/btn\_paper"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="布" />

</RadioGroup>

<Button

android:id="@+id/btn\_mora"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="猜拳"

app:layout\_constraintStart\_toStartOf="@+id/radioGroup"

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

<TextView

android:id="@+id/tv\_name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="32dp"

android:text="名字"

app:layout\_constraintStart\_toStartOf="@+id/btn\_mora"

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

<TextView

android:id="@+id/tv\_winner"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:text="勝利者"

app:layout\_constraintStart\_toEndOf="@+id/tv\_name"

app:layout\_constraintTop\_toTopOf="@+id/tv\_name" />

<TextView

android:id="@+id/tv\_mmora"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:text="我方出拳"

app:layout\_constraintStart\_toEndOf="@+id/tv\_winner"

app:layout\_constraintTop\_toTopOf="@+id/tv\_winner" />

<TextView

android:id="@+id/tv\_cmora"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginStart="24dp"

android:text="電腦出拳"

app:layout\_constraintStart\_toEndOf="@+id/tv\_mmora"

app:layout\_constraintTop\_toTopOf="@+id/tv\_mmora" />

</androidx.constraintlayout.widget.ConstraintLayout>