

ANDROID APP DEVELOPMENT USING KOTLIN

Assignment -2

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Github Link: https://github.com/chandravamsy25/ANDROID_kotlin

A simple Android app that simulates rolling a six-sided dice and displays both the rolled number and a corresponding dice image.

Features

Roll a six-sided dice.

Display the rolled number.

Display a corresponding dice image.

Code :

Kotlin file :

```
package main.course.com.example.diceprogram

import android.os.Bundle
import android.widget.Button
import android.widget.ImageView
import android.widget.TextView
import androidx.activity.ComponentActivity
import java.util.*

class MainActivity : ComponentActivity() {

    private lateinit var resultTextView: TextView
    private lateinit var rollButton: Button
    private lateinit var diceImageView: ImageView
    private lateinit var random: MyRandom
    private var resultText: String = ""

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        resultTextView = findViewById(R.id.resultTextView)
        rollButton = findViewById(R.id.rollButton)
        diceImageView = findViewById(R.id.diceImageView)

        rollButton.setOnClickListener {
            rollDice()
        }

        private fun rollDice() {
            random = MyRandom()
            val randomNumber = random.nextInt(6) + 1
            resultText = "You rolled a $randomNumber"
            resultTextView.text = resultText

            val imageResourceId = when (randomNumber) {
                1 -> R.drawable.onedice
                2 -> R.drawable.twodice
                3 -> R.drawable.threedice
                4 -> R.drawable.fourdice
                5 -> R.drawable.fivedice
                else -> R.drawable.sixdice
            }

            // Set the dice image based on the rolled number
            diceImageView.setImageResource(imageResourceId)
        }
    }

    class MyRandom : Random() {
    }
```

Xml file:

```
<?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"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:divider="@android:drawable/alert_light_frame"
    android:gravity="center"
    android:orientation="vertical"
    android:textAlignment="textEnd">

    <TextView
        android:id="@+id/resultTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:text="Result will be shown here"
        android:textAlignment="viewStart"
        android:textColor="#9C27B0"
        android:textSize="34sp" />

    <ImageView
        android:id="@+id/diceImageView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginTop="16dp" />

    <Button
        android:id="@+id/rollButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Roll Dice"
        android:textColor="#FF5722"
        android:textSize="34sp" />

</LinearLayout>
```

Output :

