Assignment 2 – DiceRoll

Main Activity Code →

```kotlin
package com.courseclass.assignment2diceroll

import android.os.Bundle
import android.widget.Button
import android.widget.ImageView
import android.widget.TextView
import androidx.activity.ComponentActivity
import androidx.activity.compose.setContent
import androidx.compose.foundation.layout.fillMaxSize
import androidx.compose.material3.MaterialTheme
import androidx.compose.material3.Surface
import androidx.compose.material3.Text
import androidx.compose.runtime.Composable
import androidx.compose.ui.Modifier
import androidx.compose.ui.tooling.preview.Preview
import com.courseclass.assignment2diceroll.ui.theme.Assignment2DiceRollTheme
import java.util.Random

//https://stackoverflow.com/questions/16906528/change-image-of-imageview-
programmatically-in-android
//In layout page don't set any image for the imageview when dynamically images are to
be displayed

class MainActivity : ComponentActivity() {
    private lateinit var ResultText: TextView
    private lateinit var RollButton: Button
    private lateinit var DiceImage: ImageView

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

        ResultText = findViewById(R.id.ResultText)
        RollButton = findViewById(R.id.RollButton)
        DiceImage = findViewById(R.id.DiceImage)

        RollButton.setOnClickListener {
            rollDice()
        }
    }

    private fun rollDice() {
        val random = Random() //Random function will generate numbers from 0 to bound-1
        val randomNumber = random.nextInt(6) + 1 //+1 is added to obtain the answer
from 1 to 6.
        //If 0 is generated by the function then the answer displayed will be 1
        val resultText = "You have rolled $randomNumber"
        ResultText.text = resultText
        if (randomNumber == 1) {
            DiceImage.setBackgroundResource(R.drawable.number1)
            //The above function call helps us retrieve an image from drawables folder
        }
        else if (randomNumber == 2) {
            DiceImage.setBackgroundResource(R.drawable.number2)
        }
        else if (randomNumber == 3) {
            DiceImage.setBackgroundResource(R.drawable.number3)
```

```
        }
        else if (randomNumber == 4) {
            DiceImage.setBackgroundResource(R.drawable.number4)
        }
        else if (randomNumber == 5) {
            DiceImage.setBackgroundResource(R.drawable.number5)
        }
        else {
            DiceImage.setBackgroundResource(R.drawable.number6)
        }
    }
}
```

Activity main Code →

```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"
    android:orientation="vertical"
    android:gravity="center"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/ResultText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="10dp"
        android:layout_gravity="center_horizontal"
        android:fontFamily="sans-serif-black"
        android:padding="15dp"
        android:text="Results Will be Shown Here"
        android:textAlignment="center"
        android:textAllCaps="true"
        android:textSize="24sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/RollButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginBottom="10dp"
        android:fontFamily="sans-serif-medium"
        android:padding="15dp"
        android:text="Roll Dice"
        android:textAlignment="center"
        android:textAllCaps="true"
        android:textSize="20sp"
        android:textStyle="bold" />

    <ImageView
        android:id="@+id/DiceImage"
        android:layout_width="134dp"
        android:layout_height="138dp"
        android:layout_gravity="center"
        android:foregroundGravity="center" />

</LinearLayout>
```
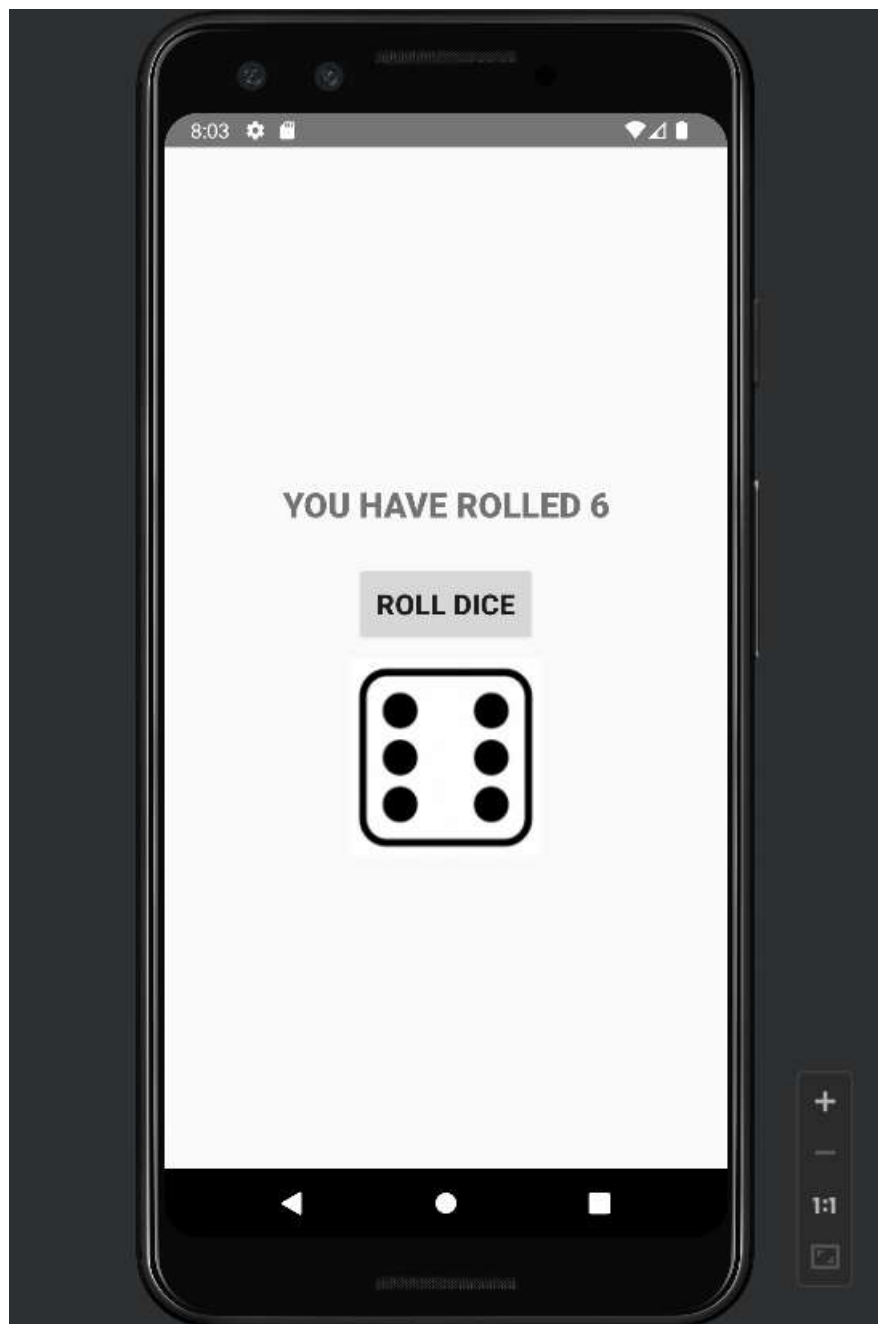
Device Screenshot →

Drive Link →

https://drive.google.com/drive/folders/1eqQ-JgvGoMZsJPYb-C_NJTfL30774nfc?usp=sharing

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Course: Android Application Development