CA: 3

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RectangleCircle.kt Class

```kotlin
package com.example.cathree

import android.content.Context
import android.graphics.Canvas
import android.graphics.Color
import android.graphics.Paint
import android.graphics.RectF

import android.view.MotionEvent
import android.view.View

class RectangleCircle(context: Context) : View(context) {
    private var batteryLevel = 20
    private val batteryColor = Color.RED
    private val batteryBackground = Color.WHITE
    private val batteryWidth = 300f
    private val batteryHeight = 150f
    private val batteryMargin = 50f
    private val borderWidth = 5f

    private val paint = Paint()

    override fun onDraw(canvas: Canvas) {
        super.onDraw(canvas)


        paint.color = batteryBackground
        val batteryBackgroundRect = RectF(0f, 0f, width.toFloat(),
height.toFloat())
        canvas.drawRect(batteryBackgroundRect, paint)


        paint.color = Color.BLACK
        paint.style = Paint.Style.STROKE
        paint.strokeWidth = borderWidth
        val batteryLevelBorderRect = RectF(
            batteryMargin - borderWidth / 2,
            height / 2f - batteryHeight / 2f - borderWidth / 2,
            width - batteryMargin + borderWidth / 2,
            height / 2f + batteryHeight / 2f + borderWidth / 2
```

```
        )
        canvas.drawRect(batteryLevelBorderRect, paint)


        val circleRadius = (batteryHeight / 2f) - borderWidth / 2f


        val centerX = batteryMargin + ((batteryLevel / 100f) * (width - 2 *
batteryMargin))
        val centerY = height / 2f


        paint.color = batteryColor
        paint.style = Paint.Style.FILL
        // Use drawCircle instead of drawRect for circle
        canvas.drawCircle(centerX, centerY, circleRadius, paint)
    }

    override fun onTouchEvent(event: MotionEvent): Boolean {
        when (event.action) {
            MotionEvent.ACTION_DOWN, MotionEvent.ACTION_MOVE -> {
                val touchX = event.x
                batteryLevel = ((touchX - batteryMargin) / (width - 2 *
batteryMargin) * 100).toInt()
                batteryLevel = batteryLevel.coerceIn(0, 100)
                invalidate()
            }
        }
        return true
    }
}
```

MainActivity.kt

```
package com.example.cathree

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(RectangleCircle(this))
    }
}
```

Output: