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package edu.illinois.cs498.dots;

import android.content.Context;
import android.graphics.Bitmap;
import android.graphics.Canvas;
import android.graphics.Paint;
import android.util.AttributeSet;
import android.util.Log;
import android.view.MotionEvent;
import android.view.View;

/**
 * Created by Administrator on 2/12/2016.
 */
public class DotsView extends View implements View.OnTouchListener {

    private Paint mPaint;
    private Bitmap mBitmap;
    private Canvas mCanvas;
    private int dotRadius;

    public DotsView(Context context) {
        super(context);
        initDotsView();
    }

    public DotsView(Context context, AttributeSet attrs) {
        super(context, attrs);
        initDotsView();
    }

    public DotsView(Context context, AttributeSet attrs, int defStyleAttr) {
        super(context, attrs, defStyleAttr);
        initDotsView();
    }

    public DotsView(Context context, AttributeSet attrs, int defStyleAttr,
int defStyleRes) {
        super(context, attrs, defStyleAttr, defStyleRes);
        initDotsView();
    }

    private void initDotsView() {
        mPaint = new Paint();
        dotRadius = 10;
        setOnTouchListener(this);
    }

    @Override
    protected void onSizeChanged(int w, int h, int oldw, int oldh) {
        super.onSizeChanged(w, h, oldw, oldh);
        mBitmap = Bitmap.createBitmap(w, h, Bitmap.Config.ARGB_8888);
        mCanvas = new Canvas(mBitmap);
    }
}
```

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@Override
protected void onDraw(Canvas canvas) {
    canvas.drawBitmap(mBitmap, 0, 0, mPaint);
}

public boolean onTouch(View v, MotionEvent event) {
    // Log.d("DEBUG", "Receiving touch event");
    int action = event.getActionMasked();
    int index = event.getActionIndex();
    float x = event.getX(index);
    float y = event.getY(index);

    switch (action) {
        case MotionEvent.ACTION_DOWN:
        case MotionEvent.ACTION_POINTER_DOWN:
            dotRadius = Math.round(event.getSize(index) * 1000);
            mCanvas.drawCircle(x, y, dotRadius, mPaint);
            invalidate();
            break;
        default:
            break;
    }
    return true;
}
```