

# ISCG7436

## Assignment 1 Documentation

### Design Patterns

MVC was used.

Shape classes for models. Enums for tools and colours. Shapes could generate a UIBezierPath if requested.

ModelManager singleton for maintaining a list of models (shapes) created.

Controller was the ViewController for the main screen.

Controller did all the drawing, tool and colour selection, and handling user input.

View was the Scene for the above controller.

Includes a button bar for selecting the tool, buttons for selecting colours, trash button, and draw area.

Singleton Pattern, for ModelManager.

Only one and same model manager is needed for keeping the models.

Utility Classes, perform very common tasks

Adjusting points and transitions to within the drawing canvas (View) frame, and saving files.

### Additional features

Works well on iPad (Air, Pro, Mini), and iPhone (SE, 4, 5, 5s, 6, 6s, 6plus, 7, 7s, 7plus).

Save image to Documents folder.

Highlighting of current selected colour.

Undo feature.

Drawing canvas (view), to prevent drawing over the buttons and screen margins.

## Third party libraries

None were used.

## Known Bugs

Doesn't display well on Retina.

Saved image includes full screen (with controls)

## Improvements

Drawing area should show a border so user knows where to draw.

Clear Screen dialog could be proper popup dialog, and disappear if user tapped outside it.

Save images to photo album instead of documents folder.

## Background

35 hours.

Past study at Auckland Uni, Software Engineering, dropped out mid-2016.

Self-teaching android.

Studying mobile development, advanced database systems, java enterprise.

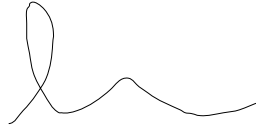
## Declaration

Mobile Software Development  
ISCG7435 Assignment 1

I declare that the individual part of this assignment submission is my own work. Where I have incorporated work by other people, I have correctly acknowledged the source in my assignment.

Student Name: Roland Askew

Signature: .....

A handwritten signature in black ink, consisting of a large loop followed by a series of connected, wavy lines.

Student ID: 1461498

Date: 6/4/2017