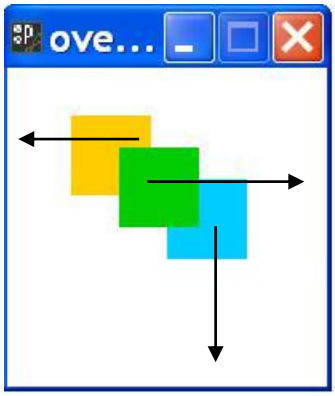
CS1013 - Coursework Exercise 1

Before you start: Make sure you are **sitting in the right place**! Students are assigned to one particular seating area and demonstrator. If you are sitting in the wrong place your demonstrator will not be able to mark you. Seating plans and group allocations are available on blackboard.

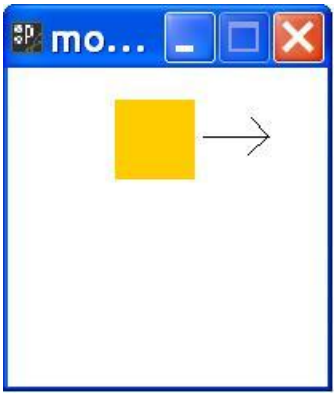
If you are working from your own computer, download Processing from processing.org - it should already be installed on all of the Lab computers. The goal of this first tutorial is to become familiar with the processing development environment, some useful graphics primitives, and the setup()/draw() structure of programs in processing.

On marking: each component must be complete, and working exactly as specified. E.g. for part 1 of this tutorial, you will get either 2.5 marks or no marks.

1. Write a program using **processing** to produce three overlapping squares, like the following, and have them move in different directions (2.5 marks):

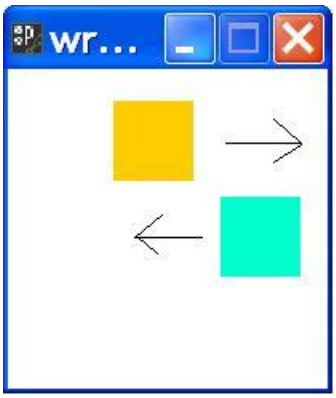


2. Write a program to animate a square moving from left to right across the screen. The square should start again when it reaches the right hand side of the window, as illustrated below. (2.5 marks)



3. Modify your program to make the square "wrap" smoothly over the edge of the window as it moves, like the following: (2.5 marks)

4. Write a program to make two squares move across the screen (and wrap smoothly) in **opposite directions.** (2.5 marks).



For parts 2-5 (and extra credit), your program needs to continue working indefinitely without crashing.

5. Extra Credit 1:

Modify your program so that the squares move in a **smooth** sinusoidal pattern across (and up and down) the screen and change colour **continuously and smoothly** as they do so.