## **Section 5: Graphics**

In this section, our goal is to work on a graphics problem together.

## Problem: Random Circles

Write a program that draws a 20 circles at random positions with random colors on the canvas. You are provided with the constants N\_CIRCLES (the number of circles to draw), CANVAS\_WIDTH and CANVAS\_HEIGHT (the width and height of the canvas, respectively) and CIRCLE\_SIZE (the width and height of each circle respectively). Specifically, your job is to implement the following function:

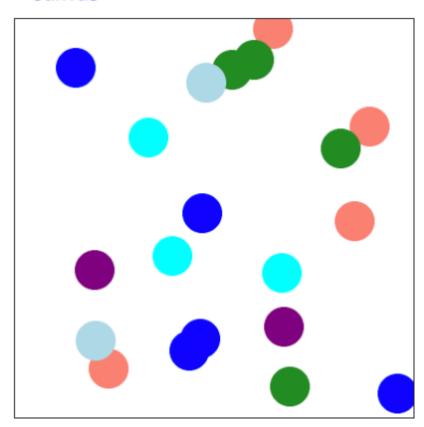
```
def draw_random_circle(canvas):
```

which takes as a parameter the canvas that will be used to draw all of the random circles. In order to choose a random color, we have a defined a function for you to use called random\_color(). It will return a random color that you can use for a given circle.

```
def random_color():
colors = ['blue', 'purple', 'salmon', 'lightblue', 'cyan', 'forestgreen']
return random.choice(colors)
```

Making all the necessary calls to your draw\_random\_circle(...) function should produce something that looks like this (of course with randomness yours will have the circles in different locations:

## Canvas



## Possible Extensions:

If you find you have extra time you can try adding the following extensions on to this problem

- 1. Draw a random number of circles between 1 and 20
- 2. Draw circles of a random size
- 3. Draw the circles such that all parts of the circle are within the canvas