



**Bachelor of IT (Computer Science)**  
**Assignment 1 - Programming Sketchbook**  
**DXB211 - Creative Coding**

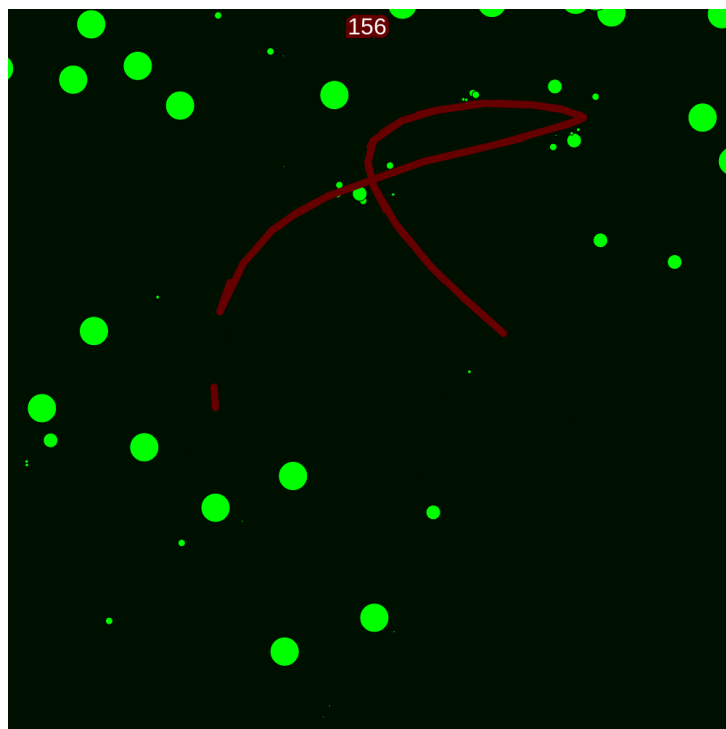
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# 1 Creative Process

## 1.1 Active Drawing

The initial inspiration for this sketch came from halfbrick studios' Fruit Ninja. I also played around with a number of other concepts such as a snake game, an airport manager game and a tower defence game. Ultimately I decided to go with a fruit ninja game because it was the simplest to implement and A lot of the elements of the other concepts were too far out of scope for this assignment.

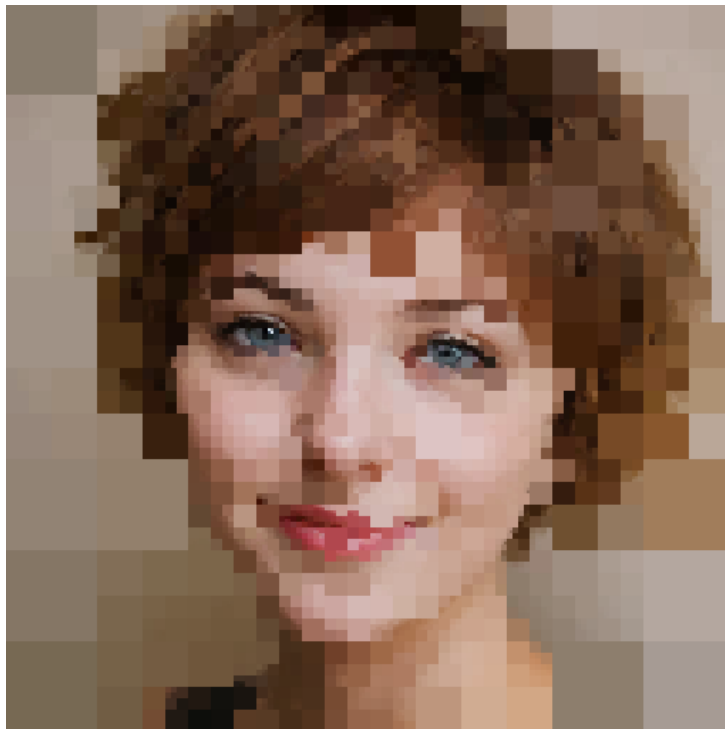
Initially with the knife swipe mechanic I had a lot of trouble getting the swipe to work properly because the method I was using to limit the line length was not working as intended and the swipe would get cut off prematurely. I ended up changing the method to cull the lines after 25 draw cycles and this worked much better. I also encountered trouble working out how to actually move the 'fruits' and how to detect collisions with the fruits. However, I was able to solve both of these issues by researching online.



## 1.2 Recombination Effect

For this second sketch my idea was to make a sketch where initially the image is heavily pixelated, but as the user draws over the image the pixels become smaller revealing the original image. I chose this style for no other reason than because it reminded me of pixel art from indie games such as Stardew Valley.

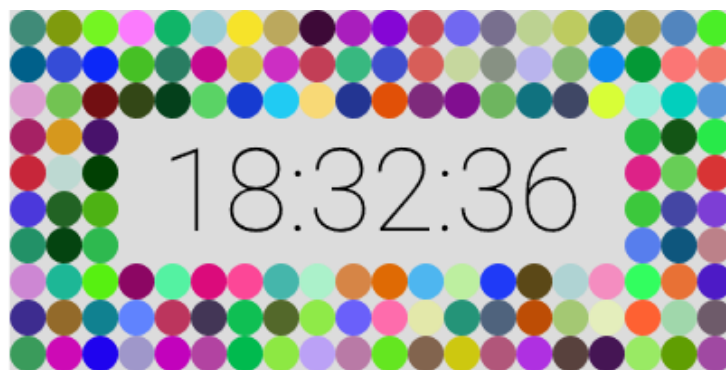
Though this sketch is quite different to the first sketch, they both have very similar code which made development of this sketch easier. However, I still encountered a number of problems when developing this sketch. The most pressing issue was the culling of the pixels. I initially tried to cull pixels the same way fruits are culled in the Active Drawing sketch but for some reason this method resulted in a few pixels failing to subdivide so I switched to a method that culls the pixels from within the subdivide function.



### 1.3 Moveable Types

For this last sketch I opted for a much simpler concept than the previous two sketches. I decided to make a sketch that functioned as a simple digital clock with the edition that every second the decorative circles around the clock would change colour.

This sketch was the easiest to develop out of the three sketches but i believe it still adequately demonstrates my understanding of the concepts of moveable types.



## 2 Relation to Field

The sketches I have created relate to the field of creative practices by showcasing a variety of aspects of creativity. The first sketch (Active Drawing) showcases games design by demonstrating the potential of using active drawing as a simple game mechanic. The second sketch (Recombination Effects) showcases image manipulation by demonstrating the potential of using sampling and active drawing to create a new image. Finally, the third sketch (Moveable Types) showcases design by demonstrating the potential of using time as a design element.

## 3 References

The image used in the recombination effect sketch was generated using stable diffusion and thus has no copyright.

Roboto. (n.d.). Google Fonts. Retrieved April 6, 2023, from <https://fonts.google.com/specimen/Roboto>