



**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 defense 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 pixilated, 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**