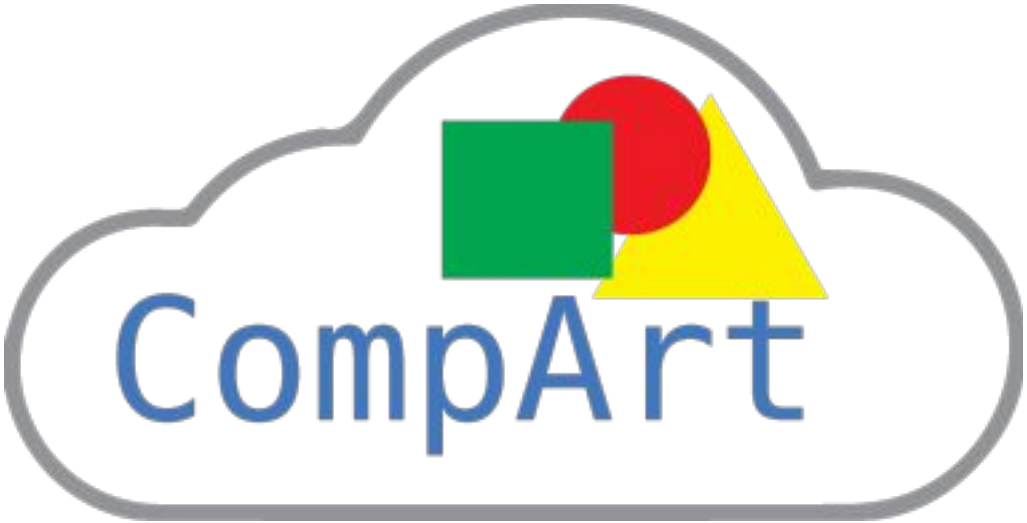
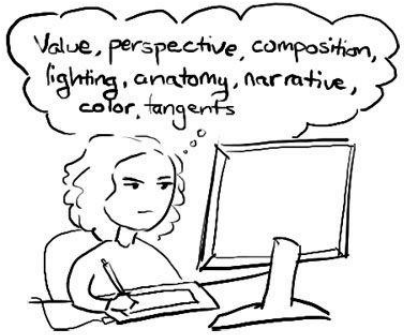


Aaron Priven, Julia Reichel, Asher Willner, Evan Zauderer

April 26, 2021

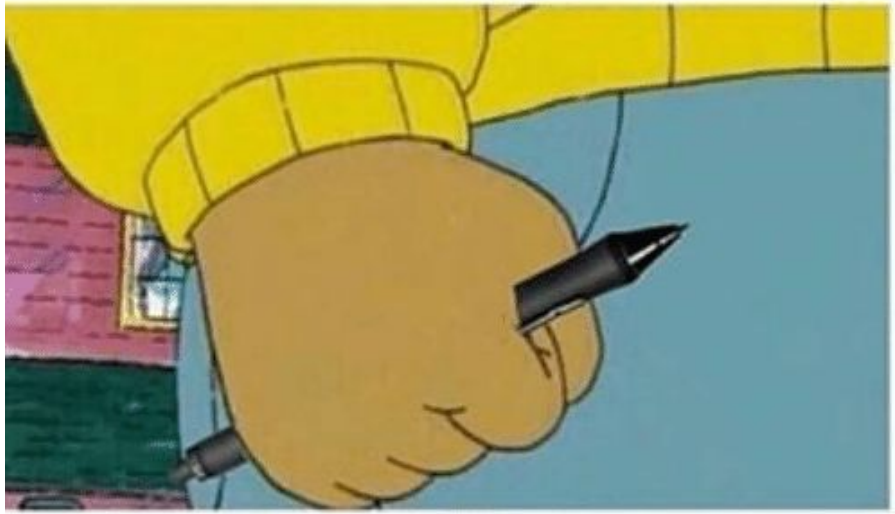
HOW DIGITAL PAINTING WORKS



HOW PEOPLE THINK IT WORKS

KMCMORRIS.COM

"Digital art isn't real art. The computer does all the work!!"



How dare

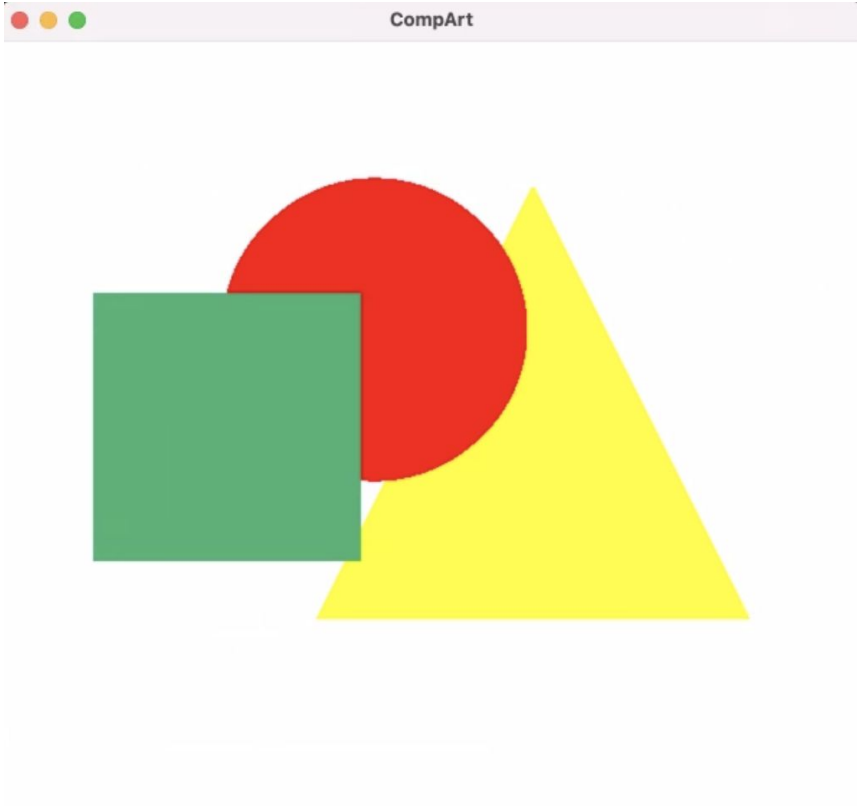
What is our language?

CompArt provides users with an easy way to create beautiful digital canvases. The language is built on top of the Simple DirectMedia Layer (SDL2) Library and uses SDL's features, along with the SDL2_gfx extended library

Language Features:

- 4 Types: Ints, Floats, Booleans, Arrays
- Libraries Linked: SDL2, SDL2_gfx

Sneak Peak




```
1   int main(){
2      int i;
3      i = 0;
4      createWindow(600,600);
5      background(255,255,255);
6      for (;1<2;) {
7         color(255,255,0);
8         drawTriangle(220, 400, 370, 100, 520, 400);
9         color(255,0,0);
10        drawCircle(260,200,105);
11        color(60,179,113);
12        drawRect(65,175,250,360);
13        draw();
14        i = i + 1;
15     }
16     return 0;
17  }
```

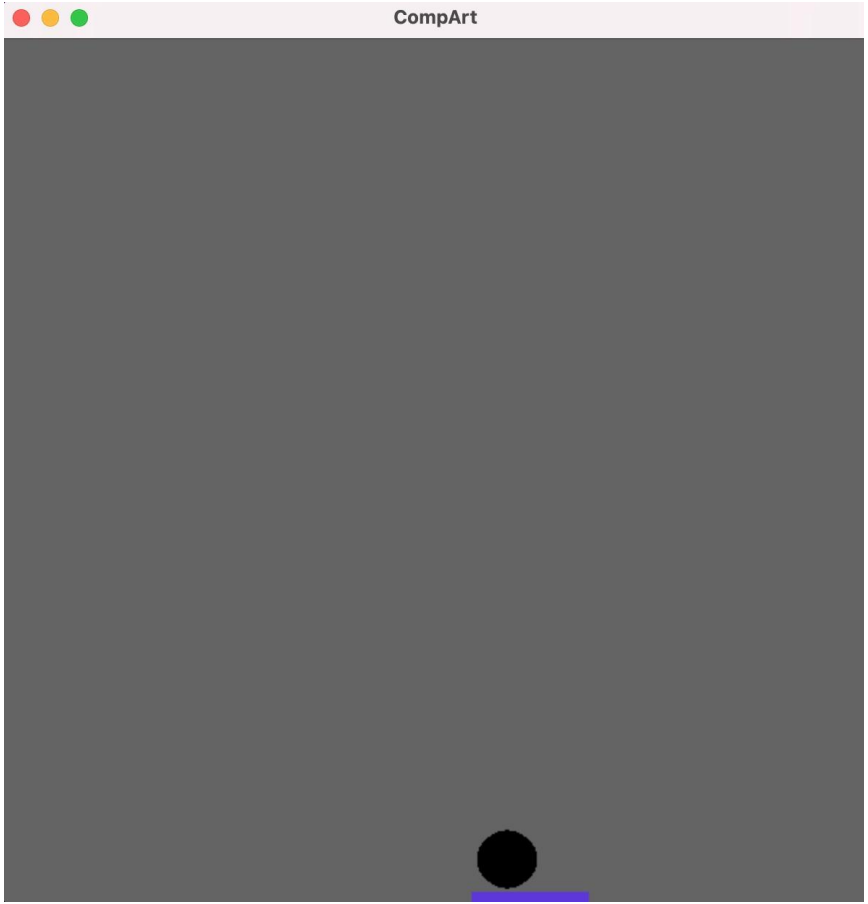
Workflow

Throughout our development process, we divided up into pairs and mainly focused on one half of the project.

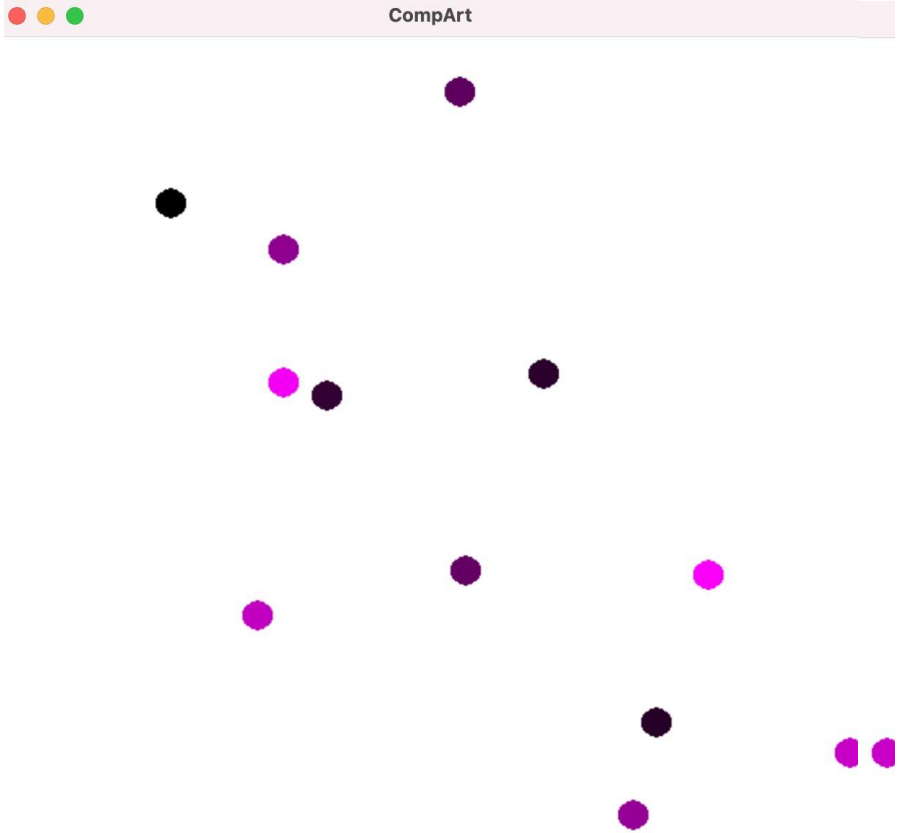
The pairs for the majority of the time were:

1. Aaron Priven and Julia Reichel → focused on the integration of SDL
2. Asher Willner and Evan Zauderer → focused on the implementation of language types

Demonstration



Interactive Game



Multiple moving balls (using our array data type)

Future Work

- Since our language is very scalable, future work would involve adding new functions to build up the standard library provided for users.
- Structs can be implemented to allow multiple shapes to be grouped into larger “objects”, for readability