waterfall

— CONCEPT

Waterfall is a website that helps you write essays. You first compose it through the website, in a text box, and then you can paste it somewhere else to format it and print it. As long as you type, the waterfall keeps running. The longer the water falls, the more animals are attracted. It isn't a game where your goal is to attract the most animals and to have the highest score, but rather it helps you keep track of how focused your are towards your task and it's a fun addition. If you see a lot of animals on the screen, it means that you've been focused for a long time, therefore you are doing a great job. If you stop typing to go browse the web or answer your texts, then the waterfall dries out and all the animals will look at you pleadingly. There is also a soothing waterfall sound running in the background to help you concentrate.

— INSPIRATION / SIMILAR WORK

Waterfall is inspired by the Forest app, which is angled towards achieving the same goal. First, you set a timer on your phone, and then, you have to let the app run on your phone for example, 30 minutes, without touching it. During those 30 minutes, a little tree is growing. If you close the app to reply to your friends or browse Facebook, your tree dies. Eventually, you can build a tiny forest with all the trees you've grown. What is amazing with this app is that you can eventually plant real trees with your efforts.
https://www.forestapp.cc/en/

I did not really know how to code a waterfall, so I looked it up online and found an interesting example. I found it on openprocessing.org, which is a website where people program cool things and then post their code online. Unfortunately, the code is in JavaScript, so I will use it to try and understand how it works, and then I will have to build a different code in Java. The waterfall is the core of my project, therefore I expect to spend a lot of time on it.
https://www.openprocessing.org/sketch/476572

— PROJECT SCOPE

The project is in itself pretty simple, and once I get my waterfall code to work properly, I won't have much left to do. However, regarding my skills and knowledge, I feel like only the waterfall could be something that represents a big task for me. Knowing that, I will start simple, and depending of how much time I have left, I can add some additional feature, such as:

• A timer counting how long you've been typing, so at the end of your essay, the page can show you a diagram of your concentration level throughout your essay.

• A background that is dark or light according to the time of the day.
• A drop of water which is generated let's say, every 5 minutes of typing, so the longer you type without stopping, the more droplets of water you generate. At the end of your essay, the page would tell you how many animals' thirst you've clenched (a bit like a score).
• A small cinegraphic sequence which tells you a quick story of how animals are suffering from a major drought. You are the only one who can generate the waterfall and help.
• When you get on the page, you have to enter the number of words you have to write, therefore, the page knows when you're done and when you're not. Your score would reset if you were to leave without having completed the essay, or you would maybe kill all the animals on the screen...

— COMPUTATIONAL COMPONENTS

Waterfall - As I mentionned earlier, I already have a pretty solid example that teaches me how to create a waterfall. I will have to go through it to make sure that I understand how it works, and then reproduce it in Java.

Keyboard - (Check wether or not any key is pressed and link it with waterfall)

```
void keyPressed() {
}
```

Sound - (Simply load Processing's sound library)

```
import processing.sound.*;
music = new SoundFile(this, "waterfall.mp3");
music.loop();
```

Animals - (Use an array of images in order to make the animals walk)

```
PImage images[] = new PImage[10];
images[0] = loadImage("walk01.jpg");
images[1] = loadImage("walk02.jpg");
...
```

https://github.com/rillakhaled/CART353_2018/blob/master/S2/exer_15_5/exer_15_5.pde

Text box - (Load the controlP5 library in order to add a text box)

```
import controlP5.*;
ControlP5 cp5;
Textarea myTextarea;
```

https://github.com/sojamo/controlp5/blob/master/examples/controllers/ControlP5textarea/ControlP5textarea.pde

— VISUALS

All the elements will be vectorial and geometrical, and the page will be minimalist. Blue tones will predominate all other colors, because it represents serenity.